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House of Representatives

The House met at 10 a.m. and was called to order by the Speaker.

PRAYER

The Chaplain, the Reverend Margaret Grun Kibben, offered the following prayer:

Immortal, invisible, God only wise, deepen the appreciation of Your truth in our hearts. Unchanging, unwavering, God eternal, root Your strength in our souls.

For Your word endures forever, and your counsel stands for perpetuity. May our meager efforts find their foundation in Your eternal plan. May our decisions be rooted in Your everlasting word.

Use us in this time and this place that even the least of our accomplishments would find worth in Your design. Guide us in these days that the most inconsequential elements of our work would have value in Your eyes.

In each fleeting moment, confront us with the opportunity to acknowledge that You are present, here, now, and in every minute of our lives. And may we serve to glorify You this day.

In Your presence we stand, and in Your name we pray.

Amen.

THE JOURNAL

The SPEAKER. The Chair has examined the Journal of the last day's proceedings and announces to the House her approval thereof.

Pursuant to clause 1 of rule I, the Journal of the last day's proceedings is approved.

PLEDGE OF ALLEGIANCE

The SPEAKER. Will the gentleman from Virginia (Mr. CLINE) come forward and lead the House in the Pledge of Allegiance.

Mr. CLINE led the Pledge of Allegiance as follows:

I pledge allegiance to the Flag of the United States of America, and to the Republic for which it stands, one nation under God, indivisible, with liberty and justice for all.

ANNOUNCEMENT BY THE SPEAKER

The SPEAKER. The Chair will entertain up to 15 requests for 1-minute speeches on each side of the aisle.

SLAVERY REMEMBRANCE DAY

(Mr. GREEN of Texas asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. GREEN of Texas. Madam Speaker, and still I rise. I rise today some 400 years after slavery was introduced to the United States in 1619. I rise today proud of this House of Representatives because on yesterday, the House approved a historic Slavery Remembrance Day resolution.

Madam Speaker, in the out years, this resolution is going to prove to be very beneficial to our country. You will find slavery remembrance commemorations going on across the length and breadth of the country. This is because we never want to repeat the horrors of slavery.

So, I thank every Member of this House who voted for this resolution. Each of you will receive from me a personal thank you as well as a commemorative booklet so that you can place this prominently some place in your home or your office because it was a historic occasion, and it will make a difference in the lives of people across the length and breadth of this country.

I am so proud of you, and I thank you. God bless you.

AMERICA IS IN A RECESSION

(Mr. MCCARTHY asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. MCCARTHY. Mr. Speaker, this morning the government announced what every American has been feeling for nearly a year: We are in a recession.

This news is a grim milestone that points toward more hardship, more suffering, and more pain for the American people. But even as we were expecting today's news, let me address what happened in the past 24 hours.

The Senate passed a bill that took a small, discretionary program and turned it into a $280 billion blank check, including $79 billion in mandatory spending on corporate welfare to be handed out to whoever President Biden wants.

For the record, I am a ''no'' on the Senate CHIPS bill that will come to the floor today. I was a ''no'' last week. I was a ''no'' last night. And I will be the first ''no'' on the board later today.

I urge all my Republican colleagues to join me. Reject this deeply flawed bill. Let's start from scratch.

And if that wasn't enough, Senate Democrats then announced they want to spend another half a trillion dollars during a recession. Democrats say they want to lower inflation, but do you know what their new bill does? It gives you a $7,500 tax credit to buy an $80,000 electric vehicle for people making up to $300,000.

They say they want to restore growth, but their new bill adds $700 billion in new taxes, including a $300 billion made in America tax that punishes anyone who wants to build, manufacture, or invest in America.

They say they want to help struggling families, but do you know what their new bill does? Who do they hire? They hire 87,000 new IRS agents to audit them and spy on their bank accounts. That is what the Democrat majority wants.

They say they want to lower prices, but their new bill will allow bureaucrats to decide what drugs seniors can

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access and destroy the hope of any new cures or treatments for diseases like cancer.

And do you know what? They are not done yet.

Mr. Speaker, do Democrats really believe that spending hundreds of billions of tax dollars right now while pursuing and punishing productive investments in the long run will lower inflation? Policies like that don't lower inflation; they cause inflation.

They are going to spend more dollars chasing the same goods with fewer jobs and lower income in the long run all during a recession.

But I know what you are going to say: It is okay because you changed the definition of a ''recession'' now. You know, Einstein once said, and we all know it: ''The definition of insanity is doing the same thing over and over and expecting a different result.'' So what you really should do is just go with changing the definition. Maybe people won't hear you or understand it.

We all know across this country what caused inflation: Democrats winning the House, the Senate, and the Presidency. And now you are doubling down on the same failed policies. Was the worst inflation in 40 years not enough? Are they trying to see how high they can get it all while forcing the American people to pay the bills for your failures?

Democrats just can't help themselves. They simply don't care about the consequences.

Which brings me to this morning's news, the Bureau of Economic Analysis announced the GDP fell by 0.9 percent in the second quarter. I am not sure, Mr. Speaker, if everybody is lined up to talk about that today. This comes after a 1.6 percent decline in the economy in the first quarter. So half of this year our economy shrank.

It is no wonder an overwhelming 8 in 10 Americans feel the economy is heading in the wrong direction. And the National Federation of Independent Businesses—this is a survey of small businesses—found that the confidence is at its lowest level in 48 years. But I guess that is Putin's fault.

Consumers and businesses are losing hope, and there is no secret why. Every week the American people know we are able to buy less with the money we have. Every week at the gas pump we are paying nearly twice as much to fill up our tanks. Every month the American people know when they get their pay stubs they are making less in real wages. And every day the American people understand the simple truth: We cannot afford Democrats' failed policies. But we are certainly paying for them.

Of course, President Biden and Speaker PELOSI won't admit it. Their response to rising prices has been to issue dismissals, denials, distortions, and a little deceptive spin.

Remember when President Biden told us last July that inflation was temporary and expected? Remember that right there? Then he told us in December that inflation had peaked, no more fear, it has peaked. That was at 7.0 percent. Democrats tried to convince us that inflation was a good thing.

Remember Secretary Yellen said this week that a recession isn't a recession, but rather, our country is in a period of transition in which growth is slowing. That is weird, huh? We all learned that a recession is really easy. You take two quarters in a row and you have negative growth. But it is weird, beginning this week the White House told us, I don't know, I looked in every book, but we are changing the definition now. We changed each and every place of where we went.

When it started, it was temporary. First, it was COVID's fault. Then, don't worry, it is transitory, it is not going to stay. Then we found out corporate greed is doing this; then it is just a high-class problem, their problem, nobody else's. Then it is okay, it has peaked. But then when it went a little higher, it is the supply chain's fault now. No, no, no, no. Now, it is Putin's fault. Eventually America may believe something. Then it is just out of date. Now, no, no it is not a recession, the economy is just slowing.

You would rather redefine a recession than restore a healthy economy?

You know, the American people know that inflation was not temporary. Inflation hadn't peaked, and now we are in a recession. But the Democrats continue to talk down to American families no matter the increased cost of nearly everything.

But you know the worst part about all of this? And I see people here ready to speak. Madam Speaker, I wonder if anyone is going to speak and show us your plan. Show us your plan to get us out of recession. Show us your plan to make our streets safe again. Show us your plan that you are going to produce more and lower the gas price. I guess your plan is just redefine and blame something else.

Their failed policies have not only made inflation worse, you created it. Democrats have increased total government spending by over $9 trillion in less than 18 months. For every American, if you wonder, do elections have consequences? Yes, they do. Oh, yes, they do. $9 trillion in 18 months.

The Democrats control the House, they control the Senate, they control the White House. This is what they brought us. We have not felt this in more than four decades. Sixty percent of every American has never lived through inflation above 4 percent.

They halted energy projects, slowed down pipeline construction, and took every step to discourage American oil and gas production. You know, when they had the majority like they do right now, they brought in all the energy companies. Not one Democrat asked: How could we lower the gas price? Do you know what they made every CEO do? They asked them: Would you promise to produce less next year because we want the gas price higher? We want to punish Americans. That was their question, to produce less. They want to intimidate them.

And they crippled the labor market by paying people to stay home instead of going back to work, including themselves.

□ 1015

This is the only place in America you can go and enjoy a wedding in France for some movie star and still vote on this floor and get paid for it. This is the only place in America you can be on a boat celebrating and still vote in this House or in your committee and get paid for it. This is the only place in America, and this is the only Congress that has ever allowed it—ever. It doesn't matter what we have ever gone through, a pandemic, a war.

Do you know what, Madam Speaker? I don't see one Member wearing a mask, and we were only going to keep that during the pandemic. I see one. I stand corrected. But I guess the rest of you feel it is okay.

If this sounds like a healthy economy to you, I hear there is an opening at the White House press office. But for the rest of us that live in reality, it is painful.

I want to ask everybody in America: Can you afford to give up 1 month of income? Think about that. Could you afford to give 1 month of your pay up? I don't know very many people in my district who can.

Madam Speaker, maybe Paul Pelosi can, but nobody else that I know can.

But that is exactly what you took from every single American. You see, inflation is so high, every single American has lost a full month's pay.

Can Americans afford to keep the Democrats in power? Could you afford to lose another month's pay? Or do you feel good that it is not a recession or it is Putin's fault?

If you had a constant salary like everybody in this body, 1 month is 8.3 percent of those 12 months. Inflation is higher, so you just lost a full salary. You have less money, but you pay more at the gas pump.

But it is okay. Tell everybody to go buy an electric car at $80,000. I wonder what your answer is to the homeless. Buy a house?

If you think about this, this is actually the Pelosi pay cut because not one American voted for your $2 trillion inflation-creating bill. Not one. The Pelosi pay cut affects every American, but do you know what? It is especially hard on families who have extra expenses.

I don't know if you watched the clip, but I watched this clip of a 15-year-old girl named Jinger Vincent from Indiana. This poor girl was diagnosed with bone cancer, and she has to travel every week for treatment. It is located more than an hour away. Last year, her parents, Keith and Analiza, paid around $100 each week for that trip, but because of the surging gas price—but it

is okay if I listen to the Democrats; the President said it is a good thing—they are now spending more than $200 each week. They also have two other children.

The Vincents said they simply can't afford a price hike, and they have turned to loans to cover the costs. Can you imagine having to take a loan to pay for the gas to take your 15-year-old daughter to get cancer treatment and at the same time losing a full month's pay?

Do you know what is worse? In this story, that 15-year-old girl, Jinger—having to watch her parents say: We have to pay this bill, and we have to pay that. This is what she said: And I am downstairs, and I hear all that. It just seems so stressful. They shouldn't have to go through this.

Madam Speaker, my question is, do Democrats agree with Secretary Buttigieg that the more pain families like the Vincents feel at the pump is a good thing? Madam Speaker, that is the Secretary of Transportation.

I guess they seem to agree with them because rather than having a plan to lower gas prices, their answer is to tell the Vincents and others to buy a Tesla. They are borrowing money to pay for gas, and you are telling them to buy a Tesla.

But do you know who is probably happy because with their new deal, you can make $300,000, and that same taxpayer that just lost a month's salary that has to get a loan to pay for gas, they have to pay more in taxes so somebody else wealthy can get that tax break—that is not compassion. It is cruelty, and the American people are suffering the consequences every day.

Americans aren't imagining that their grocery bills are higher than ever; they are. Americans aren't imagining that they have to pay more to fill up their gas tanks; they do. They are not imagining that their savings are shrinking and their 401(k)'s have become 201(k)'s; they are.

But let me tell you what they are actually living through, what they are afraid of, and what keeps them up at night: higher taxes and higher energy costs; the first house they will never be able to afford because prices are rising and their incomes are falling; retirement savings that will no longer last long enough. They are worried about how much worse it can get if Democrats' failed policies continue.

You think for all this suffering that they have caused, there is no way that Democrats would do this on purpose. Guess again.

Everything about the Biden recession was predictable and avoidable. Only Democrats in Washington chose not to see it coming. I remember coming to this exact floor, warning that if you pass nearly $2 trillion of the American Rescue Plan, you would cause inflation. I listened to the other side. They said it was going to save us. But that inflation is exactly what happened.

It is interesting when you look at these lines, producer price inflation. You don't even have to put it here, but I bet you could predict when Biden was inaugurated. That is when it all goes up.

But when did your wages start to drop? The day he was sworn in. The day the Democrats took the majority in the House, the Senate, and the White House.

When did it really start dropping hard? The day they passed the American Rescue Plan.

But I know they want to reject what Republicans say. They don't want to listen to Republicans. But do you know what? Why don't you listen to Larry Summers? He worked in the Obama-Biden administration as the Director of the National Economic Council. He was the Secretary of the Treasury in Bill Clinton's administration. Before the vote, he told everybody the American Rescue Plan could set off inflationary pressures of a kind we have not seen in a generation. I guess he was right. Jason Furman, an economic adviser to the Obama-Biden administration, said the same thing.

The American Rescue Plan was definitely too big for the moment. I don't know any economist that was recommending something the size of what was done, but every Democrat was.

Why don't we go to Steve Rattner, another Obama-Biden economist? What did he say? The American Rescue Plan was the Democrats' original sin when it comes to inflation. Think about that. Steve Rattner, who worked in the Obama-Biden administration to try to help them during an economic crisis, especially when it came to the automobile industry, says this is the original sin, the American Rescue Plan, that caused inflation. He didn't say it was Putin's fault. He didn't say it was temporary. He didn't apologize afterward because he didn't have to. He warned you about it.

Treasury Secretary Yellen—I don't know how many calls she made to try to twist arms to get people to vote for it or how many times she went on TV telling the American public that this was a good thing, that this was going to put us on the right path—she admitted in May that she missed the biggest explosion of inflation in over 40 years. She said, ''I was wrong then about the path that inflation would take.''

She was wrong when she told us it was transitory. She was wrong when she told people to vote for it.

Either Democrats didn't see the worst inflation in 40 years coming, or they did and still believed your suffering was worth the incredible transition. That explains why President Biden, Speaker PELOSI, and Senator SCHUMER are still peddling anti-energy policies, plus almost a trillion in new spending and new taxes on Main Street, even as these policies destroy our country.

It explains why we have John Kerry, Biden's Special Presidential Envoy for Climate, saying: We absolutely don't need to produce more oil and gas in America.

This is the leadership of America. We don't need to produce more oil and gas in America, so we will stop the pipeline on the first day. We will tell those American workers they are not going to work in America, but we are going to go over to Saudi Arabia.

I guess you keep some promises in a campaign when you say you are going to shut down oil and gas in America but don't keep the promise about Saudi Arabia. You go there and you fist-bump and hope you are going to get more: Could you produce more for America?

Do you know what is so sad about all of this? You have no plan to fix it, but you had the plan to destroy it. It wasn't just Republicans who warned you about it. It was your very own Democrats who were in Obama's administration, who were economic advisers, who warned you before the vote that you would create inflation. Then you took that vote.

Only Democrats passed that bill. Only Democrats created inflation. Only Democrats have shut down our oil and gas, and we haven't even gotten to defunding the police. I don't know how many times people can warn you.

You can go to my home State, to the city of San Francisco, Republicans there register only about 6.7 percent. They are not even the second party, but even San Francisco has had enough. They recalled their school board against the same policies you passed on this floor. They recalled their DA.

It is not just Republicans telling you it is hurting; it is America. But you still have no plan, not one plan. We are 1 more day here before we are out into August. There isn't one plan proposed. Or I guess your plan is to follow the President to Saudi Arabia.

But your plan that you announced yesterday, the plan you are going to vote on this floor today, is only going to create more inflation. You are going to take another paycheck away.

It explains why this week and the week before and the week before that, and every week in this House you have been in session, the Democrats have offered no plan to fight inflation. You only fuel it. It is basic economics.

Madam Speaker, in 40 years, we have never experienced this. The last time we experienced this, we had a Democrat-controlled House, Senate, and White House.

You have no plan to increase energy production to lower the price of gasoline. In fact, just this week and last week, 218 House Democrats voted to continue to sell our strategic oil to Communist China. You voted on that on the floor. You have done it twice.

So, not only do you not have a plan, but you are defending China taking the oil we saved to protect America. You have no plan to reconnect workers to jobs by ending incentives that pay more to stay home than pursue productive work.

Madam Speaker, Americans know the Democrats have no plan to rebuild

an economy that works for us—none whatsoever.

□ 1030

Republicans have a plan. We are prepared to build an economy that is strong and one that fights inflation by officially ending this disastrous Build Back Better, eliminating wasteful spending, and getting Americans back to work in the workforce.

Do you know where we will start?

Right here on this floor.

You will have to show up for work to be paid, just like every other American. No, you can't take your European trips and phone it in.

To the American public: Let's just be honest, Why won't the Democrats lift the proxy voting?

Because every person who votes proxy, signs—by penalty of perjury—they can't come in because of COVID. I imagine if that person had COVID they probably wouldn't have been let into that wedding in France or on that houseboat with their family or at the fundraiser in Ohio trying to run for the Senate.

Madam Speaker, it starts by example. If you are not willing to produce a plan, if you are not willing to have your own Members show up to work, and if you are not willing to be honest with the American people, then get out of the way and let somebody else lead.

We have an economy in our plan that will be driven by pro-growth economic policies that deliver higher paychecks and that don't take them away from you. They will lower costs, boost Main Street, and encourage innovation.

It will be an economy with lower gasoline prices—yes—by increasing production in America with American-made energy, not begging the Saudis for more. We will approve more oil and gas pipelines here at home, and we will prioritize reliable, resilient energy grids.

Do you know what it will do to not just the economy, not just more Americans working, and not just lowering the fuel price that will lower inflation?

It will improve the environment.

You see, Madam Speaker, American natural gas is 41 percent cleaner than Russian natural gas. We will secure our supply chain and no longer be dependent on China.

Madam Speaker, I know the Democrats will continue to vote to defend China to make sure they get our Strategic Petroleum Reserve. We will keep bringing it up so that every time I watch a Democrat on TV say that they are opposed to it, but they walk into this room—or they are in their weddings or on their fundraisers and they phone in their votes—and they defend China, we will defend America.

It is time for a new direction in Washington to get our Nation back on track. Americans deserve a future filled with hope, opportunities, and freedom, and Republicans stand ready to deliver.

I wait patiently for one Democrat to tell me their plan to reverse inflation, to lower the gasoline prices, and not celebrate the pain they are causing every American.

The SPEAKER pro tempore (Ms. SCHRIER). Members are reminded to address their remarks to the Chair.

Mr. NEAL. Madam Speaker, a point of clarification, are we doing Special Orders or 1 minutes?

I think there is a time set aside every day for Special Orders.

The SPEAKER pro tempore. The Chair is currently entertaining requests for 1-minute speeches. The minority leader was recognized for the customary time.

REMEMBERING DAVID TRIMBLE

(Mr. NEAL asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. NEAL. Madam Speaker, I stand today to pay tribute to David Trimble, an important contributor to the formation and the success of the Good Friday Agreement and the original First Minister for Northern Ireland. I got to know David very well, and it is unfortunate that he has left us too early.

All of the political parties in the North put aside longstanding animosities and came together to make the Good Friday Agreement possible. David Trimble showed uncommon courage to ignore dissenting voices in the Unionist community to achieve that historic accord.

For all of us, sometimes it is difficult to say no to our own side. It was not an easy process. There were many months of negotiations, and not everybody got what they wanted, but the Nobel Prize that he and John Hume received in 1998 was a reflection of those tough decisions. As we approach the 25th anniversary of the agreement, it endures because of his patient approach, coupled with a keen focus on dialogue.

My deepest condolences to his wife, Daphne, and family. Today, we know that on the island of Ireland, peace is within our sight because of the work that David Trimble contributed.

CELEBRATING 75 YEARS OF KWAM RADIO

(Mr. KUSTOFF asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. KUSTOFF. Madam Speaker, I rise today to celebrate the 75th anniversary of The Mighty 990 radio station in Memphis. Its call letters, KWAM, stand for We Are Memphis.

Over the years, legendary musicians, including Elvis Presley, have been associated with The Mighty 990.

Today, the radio station is owned by Memphis native, Todd Starnes who transformed KWAM into a news talk radio station with an emphasis on developing local talent.

KWAM is a strong voice for people across west Tennessee and the entire country broadcasting from the banks of the mighty Mississippi.

KWAM's roster of talent includes Todd Starnes' nationally syndicated show, Tim Van Horn, and Earle Farrell, along with Chett and Dr. Sherrie Hopper.

Congratulations to KWAM The Mighty 990 on this historic milestone.

AFFORDABLE HOUSING

(Mr. ESPAILLAT asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. ESPAILLAT. Madam Speaker, today I seek recognition and rise to address the growing barriers to homeownership and skyrocketing rents.

Families that have lived in the city of New York for generations are being pushed out. These families have significant ties to the community and contribute to the cultural exchange that New York City is known for.

Homeownership is one of the best ways to gain equity and build generational wealth. Yet, there are millions of Americans who aren't able to buy into the housing market.

As a member of the Appropriations Subcommittee on Transportation, and Housing and Urban Development, and Related Agencies, I am proud to have worked with my colleagues to draft a bill that would address this issue.

But we must do more. The bill provides a total of $62.7 billion for HUD which includes funding to protect housing assistance for more than 4.8 million individuals. It also expands housing choice vouchers to more than 140,000 low-income individuals and families at risk of homelessness.

We must continue to enact policies that ensure all residents can live without being burdened by housing costs.

HAPPY BIRTHDAY TO DONALD KELLER

(Mr. CLINE asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. CLINE. Madam Speaker, I rise today to salute and pay tribute to a member of the Greatest Generation in celebration of his 100th birthday. Donald Keller is a World War II veteran who has lived in Strasburg, Virginia, for almost his whole life.

At 21, Keller joined the Army as a radio operator, and he served in the military for almost 2 years from 1943 to 1945. During his deployment, he was awarded two Purple Hearts, one after being wounded in Normandy and the other when he was injured in Luxembourg during the Battle of the Bulge. Keller later received the French Legion of Honor for carrying two injured soldiers to safety while he himself was injured.

After Keller fought in the war, he returned to Strasburg where he served the city by opening his own radio repair company.

The Sixth District thanks Donald Keller for his service and contributions to the city of Strasburg.

His commitment to the city is clearly shown by the community's commitment to celebrate his 100th birthday.

So, again, I thank him for his service, and I wish Donald Keller a very happy 100th birthday.

ARIZONA IS A GLOBAL LEADER IN SEMICONDUCTOR MANUFACTURING

(Mr. STANTON asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. STANTON. Madam Speaker, thanks to years of hard work, we have made Arizona a global leader in semiconductor manufacturing. It is one of our State's fastest-growing industries.

We have supported innovative, local companies that produce base materials, we have trained a talented STEM workforce through our colleges and universities, and we have attracted billions of dollars in investment to build semiconductor fabs in the Valley of the Sun.

These days microchips are in everything from consumer electronics and cars to technologies that support our national defense. Increasingly, those chips are made in Arizona. In the future, I want more of those chips to be manufactured in Arizona. That was why I was an early and vocal supporter of the CHIPS Act.

It comes down to one word: jobs.

This bill will help drive down costs for consumers and lower our reliance on foreign countries all while creating and supporting tens of thousands of high-paying jobs in my home State of Arizona.

Madam Speaker, I urge my colleagues to vote ''yes'' on this bill to recharge America's economy.

PROTECTING AMERICA FROM THE LEFT'S OUT-OF-CONTROL SPENDING

(Mr. SMITH of Missouri asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. SMITH of Missouri. Madam Speaker, the new GDP numbers announced this morning confirm that Washington Democrats' reckless spending has sent our Nation into a recession. On top of paying an extra $5,200 this year because of the President's inflation crisis, Americans are now having to live in fear that they will see their paychecks cut or they will lose their jobs.

This incredibly troubling news comes just 1 day after the Federal Reserve hiked interest rates, which means more Americans won't be able to afford to buy a car or a new home.

Forty-year high inflation, skyrocketing interest rates, and now a recession—these are the disastrous consequences of one-party Democrat rule in Congress and in the White House.

What is their predictable reaction?

Yesterday, they announced a bill to increase taxes and to spend hundreds of billions of more dollars. It is shameful. I will fight tooth and nail to protect Americans from the left's out-of-control spending.

HONORING THE LIFE OF DETROIT POLICE OFFICER LOREN COURTS

(Mrs. LAWRENCE asked and was given permission to address the House for 1 minute and to revise and extend her remarks.)

Mrs. LAWRENCE. Madam Speaker, I rise to honor the life of fallen Detroit Police Officer Loren Courts.

Officer Courts died in the line of duty at the age of 40 on July 6, 2022. I and all Michiganders share in the grief during this difficult time.

A 5-year veteran of the department and second-generation officer, Officer Courts risked his safety and ultimately sacrificed his life protecting his community. He will be remembered by his loved ones as a remarkable public servant, friend, son, husband, and father.

Madam Speaker, I ask all of my colleagues to join me in honoring the life and service of Officer Loren Courts of the Detroit Police Department.

BUILD BACK BROKE CAUSED RECESSION

(Mr. LAMALFA asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. LAMALFA. Madam Speaker, well, here are the numbers: gross domestic product is down another 0.9 percent on this quarter on top of last quarter's 1.6 percent drop in GDP for the second straight quarter.

Why?

There are several factors: the high cost of energy and energy being shut down in this country—energy affects everything—inflation, and profligate spending by government have driven us into a situation where we have—yes, we will say the word—a recession.

Now, there are 38 different edits to the terminology of recession. However, the definition of recession on the Wikipedia page is not going to change the fact that the policies of overspending, choking regulations, and bad energy policy have made it impossible for people to afford anything anymore. Indeed, it has been a tax upon people's income. Approximately one full month's paycheck is lost to Americans because of these high costs.

So instead of playing around on Wikipedia redefining what recession is, let's get back to work and put things together on our energy policies, supply chain, and, indeed, stop the profligate spending of build back broke.

RECOGNIZING WOMEN ATHLETES AT NORTH CAROLINA STATE UNIVERSITY

(Ms. ROSS asked and was given permission to address the House for 1 minute and to revise and extend her remarks.)

Ms. ROSS. Madam Speaker, I rise today to recognize the extraordinary achievements of the women athletes at North Carolina State University.

In addition to the women's basketball team winning their third straight ACC championship, the women's cross-country team won their first NCAA championship. And we also have the accomplishments of many more.

Last spring, seniors on the women's tennis team won the NCAA doubles championship.

Katharine Berkoff also claimed the 100-yard backstroke national title for the second year in a row, while Katelyn Tuohy stormed to victory on the track in the 5,000 meters.

Last month, we celebrated the 50th anniversary of Title IX, the foundation of gender equity at educational institutions. This milestone serves as an important reminder that too often women athletes don't get the recognition they deserve.

Congratulations to the Wolfpack women on these amazing accomplishments.

□ 1045

HONORING THE SERVICE OF SHERIFF GRADY JUDD

(Mr. C. SCOTT FRANKLIN of Florida asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. C. SCOTT FRANKLIN of Florida. Madam Speaker, this past week, my sheriff and friend, Grady Judd, celebrated 50 years of service with the Polk County Sheriff's Department. Belovedly known as ''America's Sheriff,'' Grady is renowned for his plain-spoken style and relentless commitment to the rule of law. People from all over the world tune into his live-streamed press conferences to hear his Gradyisms, such as, ''You can't fix stupid, but you can arrest it.''

Grady joined the department in 1972, at the age of 18. He rose quickly through the ranks and has served as sheriff since 2004. He has been approached many times throughout his career for running for higher office but has always responded, Why in the world would I want to do that? I have the best job in the world already.

His half century of service is just one example of how seriously he takes his commitments. Less than 1 month after joining the department all those years ago, he married his sweetheart, Marisa. They will celebrate their 50th wedding anniversary on September 16; and are the proud parents of 2 sons and 13 grandchildren.

Thank you, Sheriff, for all you do to keep our community safe and for being such a good and decent man.

HONORING THE LIFE AND SACRIFICE OF RICHARD LOPEZ

(Mr. O'HALLERAN asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. O'HALLERAN. Madam Speaker, I rise today to honor the life and sacrifice of Yavapai County Sheriff Deputy Richard Lopez, who was killed in the line of duty last month.

I was incredibly humbled to attend Officer Lopez's service, and to see and feel the outpouring of love and support. I saw right away that Officer Lopez left an indelible mark on Yavapai County.

Beloved by his community, respected by those he served, and mourned deeply by his family and his colleagues, I saw right away that he was a wonderful person.

As a former police officer and homicide investigator, I know that police work is an incredibly dangerous profession. Any arrest can turn dangerous in an instant, putting officers and all involved in jeopardy in a single moment.

We must always keep our brave law enforcement officers and their families in our thoughts and in our prayers.

Today, I extend my sincerest condolences to Lushana Lopez and their two children, and to the men and women of the Yavapai County Sheriff's Department.

STATE OF OUR ECONOMY

(Mr. SMUCKER asked and was given permission to address the House for 1 minute.)

Mr. SMUCKER. Madam Speaker, well, here we are. Reports this morning show that we have been in a recession here in this country. Unfortunately, since coming into office, the Biden administration has been in denial about the state of our economy.

And I think our Minority Leader, Mr. MCCARTHY, just outlined, showed on the floor a little bit ago how the administration has been talking about the threat of inflation.

They initially promised that it would be transitory. Then chief of staff insisted that inflation was only a high-class problem. And then President Biden, blaming everyone except himself for causing the record-high inflation that we see today.

With inflation at 9.1 percent; the Fed raising interest rates again; and now, two consecutive quarters of declining GDP, Americans are rightly concerned that our economy is now in a recession.

It will be interesting to see the White House's response because, up until now, instead of trying to solve the problem, the White House has, instead, in the previous few days, been trying to alter the definition of a recession.

George Orwell warned that the government will one day tell you to reject the evidence of your eyes and ears. It is important that we identify the problem before we can solve it.

REESE'S LAW

(Ms. KELLY of Illinois asked and was given permission to address the House for 1 minute.)

Ms. KELLY of Illinois. Madam Speaker, I rise today to talk about Reese Hamsmith, an 18-month-old child who died due to complications 2 months after ingesting a button battery. This story has become more and more common with nearly 3,500 children ingesting button and coin batteries each year.

Just under a year ago is when I first met with Reese's mom, Trista. Trista's story is heartbreaking, but she has turned her and her family's grief into action. She approached my office with an idea for a bill so that other families are spared this experience.

Reese's Law requires the Consumer Product Safety Commission to create safety standards for products that contain a button or coin batteries to prevent accidental ingestion by children under 6 years old.

I thank Trista for her fierce advocacy for continuing to share Reese's story, and for helping make this bill become a reality.

I am proud that this bipartisan bill passed the House yesterday and my colleagues voted to protect children and help save countless lives.

STATE OF THE ECONOMY

(Mr. MOOLENAAR asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. MOOLENAAR. Madam Speaker, this morning, the Commerce Department announced that the economy shrank for the second quarter in a row. This means that under President Biden, we are now in a recession. And yet, the House is not acting responsibly to help the American people.

The Biden administration's policies have led our country into one crisis after another: Inflation, high gas prices, soaring grocery prices, supply chain problems, recession, children left behind in school, a record number of deaths from overdoses, vaccine mandates, and people quitting the workforce, and an overrun southern border with 500,000 people known to have gotten away in the past 10 months.

Meanwhile, House Democrats have focused on extreme policies, allowing abortion up to the moment of birth, forcing taxpayers to pay for abortions, and attacking the due process and Second Amendment rights of the American people.

None of these policies will help hurting Michigan families and seniors who are paying an extra $729 a month because of Biden's record inflation.

When Republicans led the House, we had low inflation, affordable energy, and a strong economy.

BUILDING TECHNOLOGICAL SUPREMACY

(Mr. HIGGINS of New York asked and was given permission to address the House for 1 minute.)

Mr. HIGGINS of New York. Madam Speaker, Taiwan, a country of less than 24 million people in East Asia, manufactures 92 percent of the world's advanced computer chips. You can't buy technological supremacy, but you can build it.

Today, the House will vote to approve the CHIPS Act, which will make a $280 billion investment in the design and actual making of advanced computer chips right here in America; $50 billion for research and development and for the construction of chip manufacturing facilities in America.

The bill also includes $10 billion to establish 20 regional hubs, regional centers of innovation. Buffalo, New York, is well-positioned to be one of those.

I urge this House to approve the CHIPS Act, and the Commerce Department to select Buffalo as one of the regional hubs.

HONORING THE SERVICE OF DR. O'DELL OWENS

(Mr. WENSTRUP asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. WENSTRUP. Madam Speaker, I rise today to honor and congratulate my good friend and mentor, Dr. O'Dell Owens, on his retirement. As an obstetrician, Dr. Owens brought countless young Americans into the world.

Dr. Owens served as chairman of the board at the University of Cincinnati. He was president of Cincinnati State University. He was the medical director of the Cincinnati Health Department, and he served as Hamilton County Coroner; all before spending 5 years as president and CEO of Interact for Health in Cincinnati.

Through his everyday example, he has lived his motto to ''help people help themselves.''

Dr. Owens' life is one devoted to a career of helping people who need it most. He often reflects on his dad's advice that ''tomorrow is not promised;'' therefore, it is necessary to make a difference today.

Dr. Owens, you have made a difference in so many lives, mine included. Dr. Owens, again, congratulations on your well-deserved retirement. Yet, I look forward to seeing what you may do next.

DEMOCRATIC AGENDA

(Mr. LIEU asked and was given permission to address the House for 1 minute.)

Mr. LIEU. Madam Speaker, in the first 15 months of the Joe Biden Presidency, over 8.3 million jobs were created, the most in U.S. history.

For the last 6 weeks, because of the relentless efforts of the White House and of Joe Biden to reduce gas prices, those gas prices have fallen every day for 6 weeks. That is because Democrats are focused on putting people over politics, and we want to lower costs, have better paying jobs, and safer communities.

What are Republicans focused on?

They want to end Social Security; they are attacking our democracy; and they want to criminalize women's healthcare decisions.

In fact, just last week, House Republicans voted ''no'' on providing access to birth control pills. Let me just repeat that again. We are in the 21st century, and House Republicans want government to ban birth control pills.

PROVIDING FOR CONSIDERATION OF SENATE AMENDMENT TO HOUSE AMENDMENT TO SENATE AMENDMENT TO H.R. 4346, LEGISLATIVE BRANCH APPROPRIATIONS ACT, 2022; AND PROVIDING FOR PROCEEDINGS DURING THE PERIOD FROM AUGUST 1, 2022, THROUGH SEPTEMBER 12, 2022

Mr. MORELLE. Madam Speaker, by direction of the Committee on Rules, I call up House Resolution 1289 and ask for its immediate consideration.

The Clerk read the resolution, as follows:

H. RES. 1289

Resolved, That upon adoption of this resolution it shall be in order to take from the Speaker's table the bill (H.R. 4346) making appropriations for the Legislative Branch for the fiscal year ending September 30, 2022, and for other purposes, with the Senate amendment to the House amendment to the Senate amendment thereto, and to consider in the House, without intervention of any point of order, a motion offered by the chair of the Committee on Science, Space, and Technology or her designee that the House concur in the Senate amendment to the House amendment to the Senate amendment. The Senate amendment and the motion shall be considered as read. The motion shall be debatable for one hour equally divided and controlled by the chair and ranking minority member of the Committee on Science, Space, and Technology or their respective designees. The previous question shall be considered as ordered on the motion to its adoption without intervening motion.

SEC. 2. On any legislative day during the period from August 1, 2022, through September 12, 2022, the Journal of the proceedings of the previous day shall be considered as approved.

SEC. 3. The Speaker may appoint Members to perform the duties of the Chair for the duration of the period addressed by section 2 of this resolution as though under clause 8(a) of rule I.

SEC. 4. Each day during the period addressed by section 2 of this resolution shall not constitute a calendar day for purposes of section 7 of the War Powers Resolution (50 U.S.C. 1546).

SEC. 5. Each day during the period addressed by section 2 of this resolution shall not constitute a legislative day for purposes of clause 7 of rule XIII.

SEC. 6. Each day during the period addressed by section 2 of this resolution shall not constitute a calendar or legislative day for purposes of clause 7(c)(1) of rule XXII.

SEC. 7. Each day during the period addressed by section 2 of this resolution shall not constitute a legislative day for purposes of clause 7 of rule XV.

The SPEAKER pro tempore. The gentleman from New York is recognized for 1 hour.

□ 1100

Mr. MORELLE. Madam Speaker, for the purpose of debate only, I yield the customary 30 minutes to the distinguished gentleman from Pennsylvania (Mr. RESCHENTHALER), pending which I yield myself such time as I may consume. During consideration of this resolution, all time yielded is for the purpose of debate only.

GENERAL LEAVE

Mr. MORELLE. Madam Speaker, I ask unanimous consent that all Members may have 5 legislative days in which to revise and extend their remarks.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from Pennsylvania?

There was no objection.

Mr. MORELLE. Madam Speaker, I yield myself such time as I may consume.

Madam Speaker, yesterday, the Rules Committee met and reported a rule, House Resolution 1289, providing for a motion by the chair of the Committee on Science, Space, and Technology to concur in the Senate amendment to the House amendment to the Senate amendment to H.R. 4346. It provides 1 hour of debate equally divided and controlled by the chair and ranking minority member of the Committee on Science, Space, and Technology.

Finally, the rule provides standard floor recess instructions for the August district work period from August 1 to September 12.

Madam Speaker, this rule provides for consideration of a historic package of long-overdue legislative actions that will strengthen our economy and reignite our competitiveness on the global stage.

Throughout our work in Congress, we have focused on fighting for and uplifting families, on creating opportunity and setting our community on a path toward a brighter future. This historic investment will deliver on the promise of a better tomorrow.

It means jobs, real jobs, that will keep families together and ensure our children can access the American Dream.

It means lower costs for essential, everyday items that will lessen the burden on families.

It means America will strengthen its competitiveness against countries like China and reestablish its place as the global leader in innovation.

It will reaffirm our leadership around the world by strengthening diplomacy, promoting human rights, and bolstering economic engagement.

I am proud that this bill is a result of comprehensive bicameral and bipartisan negotiations, which I had the privilege of participating in as a member of the Conference Committee.

America has always been known as the land of opportunity, creativity, and entrepreneurship. We are the Nation that took to the stars and landed a man on the Moon, the birthplace of transformational inventions like the internet, and home to some of the world's greatest scientists. Technological advancement is in our DNA, and we need to continue fostering its long-term growth. That is why I am particularly pleased this legislation includes steps to enhance regional innovation, which has long been one of my top priorities and opens the doors for limitless potential.

Federal investment in regional innovation hubs will uplift communities across the country that are already leading the way in high-tech advancements, communities like my home of Rochester, which is already doing groundbreaking work in this field.

No longer will Silicon Valley be the only area synonymous with innovation. With this legislation, we are making investments in collaboration across public, private, education, and civic sectors that will be game changers for communities across the country, transforming underutilized cities into crucibles of America's global competitiveness.

Furthermore, this legislation addresses our deep concern that America is losing its competitive edge in semiconductor manufacturing, a clear economic and national security concern. Over the past few years, China has invested more than $150 billion to build their domestic chip manufacturing capacity, while we have invested nothing. We have fallen behind. But not anymore.

The CHIPS and Science Act will bolster our domestic supply of semiconductors, putting us back on pace to match China while reducing our reliance on foreign supply chains and lowering costs for everyday families.

This legislation harnesses the spirit of ingenuity that has always guided America and turns the page on a new chapter in our history, one that creates economic opportunity for communities across the country and ensures our Nation is back on track as the global leader we have always been.

I extend a heartfelt thank-you to all of my colleagues who have helped make this legislation a reality. It has been an honor to collaborate with so many leaders, particularly the Honorable Chairwoman JOHNSON of the Science, Space, and Technology Committee on regional innovation provisions.

As a member of the USICA-COMPETES conference process, I encountered a strong commitment from fellow conferees and staff to ensure this final package reflects the needs of the entire country and provides a meaningful path forward for innovation and growth.

No legislation is perfect, but this package sends a clear message to the world that when it comes to our global competitiveness, we will set aside our differences and get the job done.

Today, we are taking decisive action to ensure our leadership remains strong, our economy remains robust, and our future remains bright.

Yesterday afternoon, this legislation received broad bipartisan support on the Senate floor, with 17 Republican Senators voting for final passage. I hope we see similar outcomes when it comes to the House floor.

I encourage my colleagues on both sides of the aisle to join me in proudly supporting this important legislation. I look forward to seeing it passed in short order.

Madam Speaker, I reserve the balance of my time.

Mr. RESCHENTHALER. Madam Speaker, I yield myself such time as I may consume.

Madam Speaker, I thank the distinguished gentleman from New York (Mr. MORELLE), my good friend, for yielding me the customary 30 minutes, and I yield myself such time as I may consume.

Madam Speaker, the rule before us today provides for consideration of the CHIPS and Science Act of 2022. After conference negotiations failed on a package to counter the malign actions of China, the Senate drafted this legislation to send billions of taxpayer dollars in the form of subsidies and tax credits to a single industry.

Democrats' reckless spending policies led to this record-high inflation that is crushing American families and small business. The government should not be spending hundreds of billions of dollars to provide subsidies benefiting one industry.

This legislation comes to the House just 1 day after Senate Democrats announced a deal to tax American manufacturers and energy producers, which will increase the cost to American families and worsen our supply chain crisis.

They also want to hire 87,000 new IRS agents, and let's be honest about this. Those agents will do nothing more than target American families and small businesses.

They also want to spend $369 billion on their radical, far-left, Green New Deal agenda. There can be no doubt that this latest iteration of Biden's build back broke agenda will cause inflation to skyrocket even further.

The Biden administration is deflecting on our Nation's recession. They are classifying Biden's economic crisis as a ''transition'' to slower growth. While they are doubling down on their disastrous policies, they are devastating everyday Americans.

It is time my colleagues across the aisle abandon their socialist pipe dream and actually work with Republicans to get our economy back on track.

Madam Speaker, I, therefore, urge my colleagues to oppose this rule, and I reserve the balance of my time.

Mr. MORELLE. Madam Speaker, I yield myself such time as I may consume.

Madam Speaker, let me just reflect on what my good friend and colleague on the Rules Committee said about a single industry. It is hard to imagine any industry in the United States—in the world, in fact—that doesn't utilize semiconductor chips. It is in everything. Chips run everything.

Whether it is your cell phone, your laptop, or your automobile, it really doesn't matter. Children's toys have chips in them. The fact is, we have lost our competitive edge. That is what this is all about. This affects industry in the United States.

Take, for example, General Motors announcing they have 95,000 automobiles awaiting chips. Do you want to increase the supply of goods to people and help bring down inflation? This is about increasing the supply of goods all over the United States in every single industry.

In my home in Rochester, New York, where we specialize in optics, centuries of optics and photonic integrated circuits, everything is involved with chips. We can no longer wait.

By the way, in addition to our economic security, our national security depends on this. If you want to not only compete with China economically but from a national security and defense perspective, we must do this.

This isn't about a single industry; it is about every industry.

It is like saying water is used to drink; water is in everything. We could not be clearer about this. This is about our competitiveness on every level, and it is about the future.

It is about our children. It is about our grandchildren. It is about what kind of country we want to have and what kind of economy we want to have. Are we going to be in a position to defend the United States' democracy and our interests around the world?

I appreciate my friend's comments, but I have to say it would be narrow-minded to look at this and simply say it affects the semiconductor industry only. It affects everything.

Madam Speaker, I yield 3 minutes to the gentlewoman from North Carolina (Ms. ROSS), my very good friend and another distinguished member of the Rules Committee.

Ms. ROSS. Madam Speaker, I rise today in support of the CHIPS and Science Act. Our Nation has long been a global leader in science and technology, but we cannot afford to take that position for granted.

Our global standing rests not just on the ingenuity of our people but also on our government's bipartisan commitment to supporting innovation.

At this moment of unprecedented international competition, we urgently need an unprecedented investment in the groundbreaking research that powers America's economic growth. That is why the CHIPS and Science Act is so timely and so important.

In addition to bolstering domestic production of semiconductors, this landmark legislation will authorize more than $81 billion for the National Science Foundation.

Crucially, the bill also funds research that will yield the cutting-edge clean energy technologies of tomorrow, cutting carbon emissions and helping combat global climate change.

Madam Speaker, my district includes much of the Research Triangle, our Nation's largest research park, which is home to hundreds of companies breaking new ground in medicine, energy, telecommunications, and more.

We are also proud of our leading research universities like N.C. State University, HBCUs like Shaw and Saint Augustine's, and our State's largest community college, Wake Tech, and we have a women's college specializing in STEM, Meredith College.

Our investments in public-private partnerships afforded by the CHIPS and Science Act will provide these North Carolina-based companies and educational institutions with unprecedented funding and research support.

Companies in my district, particularly startups, have struggled to cope with the consequences of the global semiconductor shortage. To meet that need, this bill includes more than $50 billion in chips funding, which will mitigate current semiconductor supply chain concerns, incentivize domestic production, and prevent another chips crisis in the future.

I am also pleased that this package includes several bipartisan bills I led with members of the Science, Space, and Technology Committee, including the Energizing Technology Transfer Act, a version of the NSF Technology Research Institutes Act, and the National Science and Technology Strategy Act.

These bills will help facilitate the commercial application of clean energy technologies by universities and private companies, the development of a national science and technology strategy, and investment in research and traineeship programs for graduate students.

The CHIPS and Science Act embodies the investment needed to empower innovation in North Carolina's Second District and across the United States. I support the rule and the underlying bill.

Mr. RESCHENTHALER. Madam Speaker, I yield myself such time as I may consume.

Madam Speaker, I don't disagree that these chips are important to the U.S. economy and many manufacturers. What I take issue with is the fact that we are putting even more money, billions of dollars, into an economy that is already suffering from record-high inflation.

It is unsettled whether this will even make a difference. It can be argued that chips were already going to come back anyhow, and it is not just me saying it. I have an article right here from

The Economist, not exactly a right-wing publication. It was published on 10 July of this year. ''When the chips are way down: After a turbocharged boom, are chipmakers in for a supersize bust?'' That is the headline.

It goes on, saying: ''Surging supply and softening demand are bringing the pandemic's superstar industry back to Earth.''

My question is: If this industry is already coming back, if it is already as important as we think it is, why do we need to inject billions of dollars into the economy that is just going to further the economic crisis we are already in?

I know my colleague from North Carolina was talking about how to spur research and development. I can tell you how to do it: You cut taxes. You cut regulations.

If you look at the TCJA, this was a huge win for U.S. research and investment: 25 percent higher than in the years prior, reaching an all-time high in 2019 of $584 billion and 3 percent of GDP.

If you want to stimulate the economy, you can do it by reducing taxes and reducing regulation, not by picking winners and losers.

To talk more about this point, I yield 3 minutes to the gentleman from the great State of Texas (Mr. BURGESS), my good friend and fellow Rules Committee member.

□ 1115

Mr. BURGESS. Madam Speaker, this morning we are here to talk about the rule for the CHIPS Act to provide $76 billion for semiconductor manufacturing and authorizing $200 billion over 10 years for research and innovation programs.

Now, according to a long-term budget outlook released by the Congressional Budget Office just yesterday, our national debt sits at $24 trillion and will rise to $138 trillion over the next three decades. That is equivalent to $370,000 for every man, woman, and child in the United States. Our mandatory spending over the same period would grow from just over $4 trillion per year to over $18 trillion per year. The CHIPS Act includes billions in new mandatory spending and billions more that is authorized for appropriation.

We are experiencing the highest inflation in 40 years with multiple interest rate hikes. It has been widely reported that the Federal Reserve hiked interest rates again and with the statement that they have no choice but to try to slow the economy in order to tame this inflationary pressure.

And then here is the ironic part of all that, the CHIPS bill also is the key that unlocks the door for getting the long-stalled Build Back Better Act going over in the United States Senate.

And what does that do?

It provides billions of additional dollars of stimulus spending in the economy. But the Federal Reserve said they have no choice but to slow the economy.

So which is it? Is it a stimulant or a depressant?

As a medical professional, I will tell you, if you combine those two activities, you are going to end up with something that is just goofy. But then on top of that, there are tax increases at a time of recession.

Even the Obama administration in 2009 and 2010 said, we can't undo the Bush tax cuts, we have got to continue the Bush tax cuts that they had long hoped to undo because they could not raise taxes during a recession. And yet now we have the other body poised, basically, with their Green New Deal to tax America back into the stone age.

I agree that semiconductors are a critical component of likely everything we use, but we cannot put our fiscal future in further jeopardy, especially when this funding will benefit one specific industry. I am also concerned that the time required to ramp up the semiconductor production will be late in trying to alleviate current supply chain constraints. As my friend from Pennsylvania just pointed out, when this industry self-corrects, the likelihood is there will be too many.

Rather than provide funding to large corporations, many of whom are already undertaking significant development efforts, let's incentivize competitiveness in all industries and continue to promote research and development and not raise taxes during a recession.

Mr. MORELLE. Madam Speaker, I yield myself such time as I may consume.

Madam Speaker, I am a little surprised by the conversation here, it is as though we don't recognize the importance of semiconductors and the entire semiconductor supply chain to literally every activity we are involved in. Whether transportation, as I have already mentioned, or communications or medical devices or our satellite technology, literally every single thing we do depends on it.

The notion that we should somehow stand pat and allow other nations to invest and to build their supply chains to me is hard to accept, hard to understand, hard to process. If we do nothing over the next decade, China will be producing about 40 percent of semiconductor chips worldwide, the United States about 6 percent. If we want to put our reliance in the hands of foreign suppliers and foreign supply chains, I guess we can do nothing. But we need to invest, and that is why this bill is critical. That is why I suspect it received the support of 17 Republican Senators on the Senate floor yesterday. This is critical.

As I said earlier, China is investing $150 billion in their semiconductor supply chain, and this is not just chips; it is chips, it is substrates, it is packaging, it is assembly. It is the whole thing. Anytime there is a gap in a supply chain, we rely on those who fill that gap for us.

Do we want to be in a position where our economic fortunes are dependent on foreign competitors for a critical part of our supply chain?

Do we want to put our national security in jeopardy because those things which we need to be safe and secure are dependent upon foreign supply chains?

I don't think so. I don't think that is what the American public wants. And, frankly, I am glad to have this debate because I think it shows a divide. I think it shows a contrast between what we want to do to invest in not only this generation but next generations.

There are also a couple of other observations I will make. One is about just market forces and just allowing things to happen according to the market. While working on this bill—I talked a lot earlier, and I will continue to talk about regional innovation, but I also want to talk about Federal investment, two points.

The first I would make is: R&D investment by the United States Government has fallen to 0.61 percent of U.S. GDP. That is the lowest mark since the 1950s. At one point we were investing nearly 2 percent of GDP in research and development.

What came out of things like our investments in the space program are material sciences and advances, advances in telecommunications, advances in weather satellites, advances in so many different things, even fuel cell development. All those things came out of an R&D investment which we haven't kept pace with.

We talk about our competitiveness with China. This is vital to our national interest. I can't think of many things that are more vital to our national interest over the next several decades.

When you look at where we are making those investments, right now, if you are privileged to live in one of the five innovation hubs—such as Boston; the Silicon Valley; in Seattle, Washington; in Austin, Texas—those areas account for about 90 percent of private investment, and venture capitalists will spend in those areas.

But what about the rest of the country?

I live in a place, Rochester, New York, which is home to the Rochester Institute of Technology and the University of Rochester, both great research facilities. There was a book recently written, ''Jump-Starting America'' by Simon Johnson and Jonathan Gruber, two MIT economists. They rated 130 different communities across the country that are falling behind, despite the fact that they have great innovation ecosystems, but they lack investment.

The public investment which we are talking about making through our regional innovation hubs will drive private investment because private investment will partner with the investments being made by the U.S. Government in our innovation, in our entrepreneurship, in advancing our interests for the long term.

We have to do this. This isn't something that we could decide to wait a

year or two years. This is an investment we must make now. We have fallen behind, and we can no longer afford to fall further behind.

Our economic interests, our national security interests are intimately tied together, and that is why this legislation is so vital, and that is why I hope we will have strong bipartisan support when the bill comes to the floor.

Madam Speaker, I reserve the balance of my time.

Mr. RESCHENTHALER. Madam Speaker, I yield myself such time as I may consume.

Madam Speaker, just a point of clarification. This is just an authorization. We will still wait a year anyhow to appropriate these funds, so trying to act like we have a gun to our head right now and this is a do-or-die moment is completely illusory. Again, this is just an authorization.

Additionally, I agree with my friend from New York on two points. Number one, we have got to be competitive with China.

Number two, the semiconductor chips are important for the economy.

But the way to compete with China is not to emulate the policies of a Communist police state. The way to compete with China is to unleash the American economy, to get back to our Western roots of free-market capitalism. If we want to bring more businesses onshore, if we want to fix our supply chain crisis, we can start by reducing the burdensome regulations that are crippling American businesses. We can reduce our income tax and our corporate income tax to make us more competitive globally, and we can do something to make sure we have cheap, reliable, abundant energy resources, such as exploiting our natural gas reserves and perhaps investing in nuclear power.

But to sit here and say that we are going to compete with China by doing what the Chinese do and having some bureaucratic monster in D.C. pick winners and losers for a particular industry is not a winning proposition.

What will beat China and keep us competitive with China is getting back to what made this country great in the first place, and again that is free-market capitalism.

Let's talk about inflation because, again, this is going to put billions of dollars into the economy, which will make this situation worse. Americans are facing the highest inflation in over 40 years. This is literally the worst inflation in my lifetime. This morning we learned that GDP has decreased for a second quarter in a row.

Yet, the Treasury Secretary wants to downplay Biden's economic crisis by redefining recession, which for decades recession has been defined as two quarters of negative economic growth. Instead, Secretary Yellen and the leftists across the aisle want to play Orwellian and change the definition to ''a period of transition.'' Even the extreme liberal think tank, The Brookings Institution, acknowledged we are in a recession, but it seems, again, my colleagues across the aisle have forgotten basic economics.

House Republicans want to set the record straight. That is why if we defeat the previous question, I will personally offer an amendment to the rule to immediately consider House Resolution 1290, a resolution affirming the longstanding definition of a recession.

Madam Speaker, I ask unanimous consent to insert the text of my amendment into the RECORD along with any extraneous materials immediately prior to the vote on the previous question.

The SPEAKER pro tempore (Mrs. LEE of Nevada). Is there objection to the request of the gentleman from Pennsylvania?

There was no objection.

Mr. RESCHENTHALER. Madam Speaker, I yield 5 minutes to the gentleman from Arizona (Mr. SCHWEIKERT), my good friend and the sponsor of this resolution, to explain the amendment.

Mr. SCHWEIKERT. Madam Speaker, I have got to tell you, being on the Ways and Means Committee and never actually engaging in some of your Rules debate, you guys are really polite with each other.

But here's a simple question: What are the two times in life you think you know everything?

When you turn 13 years old and the day after you get elected to Congress.

I am going to argue the arrogance of this place right now doing a piece of legislation like this. Why is this bill, the underlying bill, the underlying rule here so dangerous? And why this resolution actually fits this.

Basically, the underlying bill is industrial policy. Let's face it, some of the scoring is saying this is $400 billion, and it is the politicization functionally of a category of incredibly important industry, grants that you saw the President a couple days ago talk about—now you are going to have to come in front of me.

Do you understand how dangerous that is for an economy? That arrogance of the political class thinking you understand what the next disruption is. The controlling of intellect, the controlling of taking risk.

If you actually gave a darn about American competitiveness, of where chips—and who knows, quantum, and all the other possibilities of data management, data movement, of processing—are going, you would fix the Tax Code, you would fix the regulatory code.

If you care about China, deal with the made-in-America tax, the fact that they refund the VAT; and when we export, they put the VAT back on, and it makes us not competitive.

You also now have to deal with the reality, when The Economist is writing articles that we are heading toward a glut of chips. Look, I am from Arizona. On the side of my district, I have a $16 billion investment from Taiwan Semiconductor. Down the street I have Intel, I think they are spending $18 billion. It is coming.

But the brain trust around here is we are going to do industrial policy. We are going to control the money. It will be great for fund-raising. And the concept, once again, is we have politicized everything. Think of now the debate we have had the last couple days, is two quarters of negative GDP, well, that is not a recession. Okay, technically it might not be because the definition of recession now is a committee that is politicized.

Could we at least have some benchmarks here in Congress, here in Washington that we know what the rules are? I don't mean your type of rules. I mean the rules for society, the rules for tax policy, the rules for how we allocate capital, because you are offering right now functionally $400 billion of subsidies, controls, management, and industrial policy, government.

Why don't you just nationalize the chip industry because you are pretty much heading that direction.

This is a simple amendment. In some ways, it is actually very symbolic of we can't even agree anymore on what a recession is.

Okay, fine. Let's just make it a rule instead of making it a committee of individuals that get to express their opinion and their feelings.

I would love to actually offer something more complex. Maybe we should go back to the old misery index debates of how many people can't afford living anymore. You do realize the inflation from just the last 12 months, my constituents—I represent the highest inflation in the Nation—get to work about 6 weeks without compensation. The purchasing power of their lives has crashed so much, they now work a month-and-a-half for free.

□ 1130

These are the brilliant policies this place has brought. It is time we actually start to set some benchmarks on what the rules are.

Simple amendment. Just saying, hey, we will call it a recession when we have two consecutive quarters, and we can stop the politicization of everything here in Washington.

Mr. MORELLE. Madam Speaker, I yield myself such time as I may consume.

I will admit that I am a little mystified about what I am hearing here, so let me try to unpack a lot of what I just heard.

In the first instance, a number of my colleagues have repeatedly suggested that regular order in the House is for the authorization of legislation and then appropriators identify how much money can be spent on those things authorized under law.

That is exactly what we are doing here today. We are authorizing much under the CHIPS legislation. That is the way we do regular order. It is identifying those things that we authorize

and then identifying the dollars necessary to meet that authorization.

But let me just read from the actual report on the bill: Division A, CHIPS Act of 2022, Section 101, Short Title: This Act may be cited as the CHIPS Act of 2022. Section 102, Creating Helpful Incentives to Produce Semiconductors for America Fund, the CHIPS fund. In order to support the rapid implementation of the semiconductor provisions included in the fiscal year 2021 National Defense Authorization Act, the NDAA, this division would provide $52.7 billion in emergency supplemental appropriations.

This bill has nearly $53 billion included in it, $50 billion allocated over 5 years for the CHIPS for America Fund.

I could go on and list it, but this is exactly what we are talking about: Authorization to move forward over the next several years to strengthen American competitiveness in the world.

By the way, it is not just all of the industries I talked about. Try to order a refrigerator without a chip in it or a microwave oven or a dishwasher or a TV or a laptop or a cell phone or—I could go on and on all day. There isn't a consumer device, there is not an electronic device—even farm equipment. Everything we use has chips in it. We are falling behind the Chinese and others, and we are relying on foreign investment and foreign supply chain.

I can't imagine something more American than passing this bill. This is vital to our national interest. This is one of the most vital things we will do.

So we are following in the way that we are supposed to: authorization, appropriation. But there are emergency appropriations of over $50 billion to move not just one industry forward, but to move all industries forward, to move our economic and our national security interests forward together.

By the way, just so if people tune in and wonder, What is this all about? Let me just say all the things I just mentioned, $50 billion in emergency appropriations, the desire and the need and the will of the American people, as represented by the Senate and the House, to move forward on economic and national security interests.

We should put that all aside, my friends are suggesting, and don't do any of that today. So we are not going to authorize; we are not going to spend money; we are not going to move ourselves forward from an economic security and a national security perspective.

This is what they would like us to do instead, and I am reading from their bill, the thing they just said we should do instead of doing all the things I just mentioned: resolve that it is the sense of the House of Representatives that two consecutive quarters of negative growth in gross domestic product constitutes a recession. That is what they would like to do.

We would like to move America forward. We would like to build a supply chain that works for all Americans. We want to make sure our economy is strong now and in the future. We want to make sure our national defense is strong, that the American public is protected, that democracy is protected across the world. And that is what we are doing. That is what our partners in the Senate are doing. They want to define what a recession is. That is their plan.

I would ask America: Should we stop what we are doing? Should we put an end to our desire to make sure we are competitive on the world stage? Should we not protect America's economic interests? Should we not protect America's national security interests? And we should define in the House of Representatives what a recession is? That is what we want to do? That is their plan?

I think most Americans watching would be scratching their heads. I think they would wonder why is it people don't want to make us competitive here in the House of Representatives. Well, we do. The majority—and I suspect a fair number of their colleagues are going to vote for this, too, because they know it is good for America, and they know it is good for the future, for not only my generation, but my children's generation, my grandchildren's generation, and generations to come.

Madam Speaker, I reserve the balance of my time.

Mr. RESCHENTHALER. Madam Speaker, I yield myself such time as I may consume.

Just to clarify, this is not an either/or choice here. If we defeat the previous question, we can consider the resolution of my good friend from Arizona to actually define recession, and then we can take up the underlying bill. Again, this is a false choice saying it is one or the other. We can do both.

People may ask, Why is it necessary to define recession? It is necessary because the party across the aisle are trying to redefine recession. But I shouldn't be surprised. Because remember, this is the same party that tried to tell us that women are now known as birthing people. It is the party that all during the summer of 2020 told us that violent rioting and looting was mostly peaceful protesting. Now they are trying to tell us that a recession, which has been defined for decades as two consecutive quarters of negative GDP growth, that that is now called a transitionary period.

So it is an absolute necessity that we define recession so that we have clarity in language.

Madam Speaker, I yield 3 minutes to the gentleman from Illinois (Mr. RODNEY DAVIS), my good friend and the ranking member on the Committee on House Administration.

Mr. RODNEY DAVIS of Illinois. Madam Speaker, I thank my good friend Mr. RESCHENTHALER from Pennsylvania for yielding. He is right that it is disinformation. It is disinformation. We should defeat the previous question so that we can go back to what defined a recession and what has defined a recession for decades.

Democrats have to stop playing games, playing games with misinformation and disinformation. Now, we have got another game being played with this rule today.

This is a rule, as my good friend from New York talked about, that is going to allow a bill to come to the floor that has some very good bipartisan provisions. I think many Republicans would support a lot of the provisions in this CHIPS bill.

The problem is, why in the world does the majority have to continue to play games instead of actually working with us and doing anything in a bipartisan manner?

Tucked into this rule is a provision that will completely eviscerate the intent of a rule that was negotiated in a bipartisan way by Republicans and Democrats that if a Member of Congress was able to secure 290 cosponsors on a bill, he or she would have then been given the right, as a Member of this institution, to have that bill debated and voted on, on the floor of the House of Representatives.

I remember Democrats and Republicans standing up and touting this provision, that this is going to bring power back to every Member of Congress. Until today—until today when the Rules Committee decides to turn this provision off, to deny the 294 cosponsors of the Social Security Fairness Act that is in place because all 294 of us want fairness for our retired teachers, our retired firefighters, and our retired police officers. They are turning off this rule for one reason and one reason only, to not have a vote on the floor like they promised us they would do.

We followed their rules. And what did Democrats do? They changed the rules in the process.

Do you want Republicans to vote for legislation in a bipartisan way when you play games like this? Well, don't be surprised when there are a lot of noes popping up on the board today for a piece of legislation that I think a lot of Republicans would normally support.

It is games like this that hurt the retirees the most. Democrats for decades have promised retired teachers, firefighters, police officers, and other public employees—they promised those individuals that they would do something to fix these egregious provisions, the Government Pension Offset and the Windfall Elimination Provision in the Social Security Code.

This is their shot—this is your shot, Madam Speaker, to get the majority——

The SPEAKER pro tempore. The time of the gentleman has expired.

Mr. RESCHENTHALER. Madam Speaker, I yield an additional 1 minute to the gentleman from Illinois.

Mr. RODNEY DAVIS of Illinois. Madam Speaker, this is the majority's

shot to live up to the promises the Democrats have made for decades to those who have been begging for a solution. All you have got to do is take this rule back, remove this turn-off provision, allow the consensus calendar to continue as it was intended to continue when this rule change was negotiated.

If I was a bipartisan member of the Problem Solvers Caucus, I would be coming to the floor screaming. What I want to do is I want every single cosponsor of H.R. 82, the Social Security Fairness Act, to consider—all 293 others besides me—I want you to consider voting against this rule. Because if they can turn this off and they can change the rules midgame, then why celebrate a bipartisan success story that was put in place in 2019? Stop playing politics.

Madam Speaker, Members of the majority, quit playing games, vote down this rule, and change this provision.

Mr. MORELLE. Madam Speaker, I yield myself such time as I may consume.

I do worry sometimes that the public sometimes doesn't understand what is being said here. It is curious that my distinguished friend, the gentleman from Illinois, would scream about the consensus calendar.

Let me just be clear, folks back home. We created the consensus calendar. It didn't exist in the past. The Democrats created it to try to create more bipartisanship. What we are doing here is simply pausing, as we have done on both sides when both sides were in the majority—pausing during the August district work period.

This is something that I just find fascinating. We didn't even have a consensus calendar when Republicans were in charge. We are pausing it for the next 6 weeks. I appreciate the distinguished gentleman, but I want to assure the American public that what they should be focused on is the work we should be doing today, the work that is actually getting done to strengthen our resolve around the world, to strengthen our economic position, to build jobs for families across America, to aid consumer electronics and business electronics, and all the things that we want to do around quantum computing and quantum communications, and taking American ingenuity, American innovation, which has been the hallmark of our growth as a Nation for two centuries, and doubling down and saying we are not going to stand aside and let others take a leadership position in this world.

America is going to stand up. We are going to do what we have always done. We are going to invest in smart people; we are going to build our economic future; and we are going to build our national security future. It starts here today. That is what we should keep our eyes on.

Everyone should pay attention. This is what we are doing. I am expecting and hoping that we are going to have a substantially bipartisan vote on this bill when it comes to the floor as it did in the Senate just yesterday.

Madam Speaker, I reserve the balance of my time.

Mr. RESCHENTHALER. Madam Speaker, I yield 2 minutes to the gentleman from Illinois (Mr. RODNEY DAVIS) for the purpose of a rebuttal.

Mr. RODNEY DAVIS of Illinois. Madam Speaker, I have the utmost respect for my friend and colleague from New York, but he is dead wrong in the information and advice that he got from the Committee on Rules.

The sheer fact that this so-called turn-off provision is nonchalantly just used as—well, it wasn't part of the consensus process, but let's pound our chest and say we created the consensus calendar process to begin with, so we are great. Well, when you disrupt the consensus process, you are not great. You are actually changing the rules midgame.

Really, here is the kicker: There is talk about us having to come back to do a few votes while we are in the midst of August. The way this rule is written, those days won't even count toward the consensus calendar.

Rest assured, there is no other reason that the Democrats and the majority on the Committee on Rules are doing this than to stop the progress of actually addressing the Social Security Fairness Act.

We have 294 cosponsors. We played by the rules. Democrats changed the rules midgame. And you trust this majority to actually put a bill together that is going to stop China from dominating the chip production industry in the globe when they play games like this?

That is what the American people are sick and tired of. That is why that is an outgoing majority. That is why we are going to have a new majority. It is games like this that have to stop being played when you talk about bipartisanship, but you don't actually govern in a bipartisan way.

□ 1145

Today is another shining example of that. Again, 294 cosponsors. We play by your rules, we play by the majority's provisions, and you change the rules midgame. I certainly hope our umpires tonight at the Congressional Baseball Game are better at actually codifying the rules that exist.

Mr. MORELLE. Madam Speaker, while I have just a moment, I want to share with those who tuned in some comments about the underlying bill for this rule. ''This funding will help kickstart domestic production of these semiconductors in a way that will prevent a vulnerability of our supply chain . . .'' ''One other benefit to this bill is that this bill could create roughly 185,000 jobs every year as these new facilities are constructed.'' That was said by JOHN CORNYN from Texas yesterday on the floor of the U.S. Senate.

From ROY BLUNT, a Republican Senator from Missouri said: ''This bill includes targeted investments in technological development and manufacturing that will strengthen our position in a global economy. The bill expands the successful Manufacturing U.S.A. program by creating new innovation hubs and helps ensure we have the right Federal policy in place to support the research and development of emerging technologies. I was proud to be a part of this effort, and I urge our House colleagues to get this bill to the President's desk.''

SHELLEY MOORE CAPITO, a Republican from West Virginia said this: ''America can never be replaced as the global economic and innovation leader. Winning the future means making the necessary investments to address issues like the microchip shortage, prepare the next generation of workers in science and technology fields, and keep up with our competitors, including China. This legislation not only bets on American ingenuity, but it also authorizes funding that can be utilized by our institutions of higher education . . .''

How about TODD YOUNG, a Republican from Indiana: ''It's time to go on the offensive, and that is exactly what this legislation, which has gone by many names—from the Endless Frontier Act to the U.S. Innovation and Competition Act to CHIPS-Plus—will do . . .'' ''This bill will unleash private sector innovation while significantly boosting Federal national security investments. It's been a long journey to get to this point, but history will show that by passing this bill, we are confronting the challenges of today and building a prosperous and secure tomorrow for all Americans.''

ROB PORTMAN, a Republican from Ohio: ''Today's passage of the CHIPS Act is critical in the effort to bring semiconductor manufacturing back to the United States, protect our national security, and create thousands of high-paying jobs in Ohio. I was proud to help lead efforts in the Senate to pass this legislation and ensure that Intel's planned semiconductor plant in central Ohio remains on track and reaches its full potential. I urge the House to act quick on this bipartisan legislation so the President can sign it into law, and I look forward to attending the groundbreaking for this transformational project in the coming months.''

The reviews keep coming, and they are all positive. We have got to move this today in the House. We have got to get it to the President's desk. We have not a moment to lose in the race for America's future and to make sure that we are secure for generations to come.

Madam Speaker, I reserve the balance of my time.

Mr. RESCHENTHALER. Madam Speaker, I am prepared to close, and I yield myself the balance of my time.

Madam Speaker, my good friend from New York was talking about jobs and the promise of more jobs with this act. We have heard this before. The American Rescue Plan. We sat here and debated that, and we were told by the

leftists across the aisle that this was going to create 4 million new jobs. You know what didn't happen? We didn't create 4 million new jobs. And that is not me saying that. That is a study from the American Enterprise Institute, which found that the American Rescue Plan failed to create any of the 4 million new jobs that Big Government Democrats had promised.

While we are talking about stats and figures, let's put a real cost to the inflation and the pain that is being inflicted on the American people by injecting billions of dollars into the economy. So let's put real numbers on it. Inflation will cost the average American household more than $6,000 a year. That is so high that if you have had a constant salary for the last year, you have essentially worked for more than a month without pay.

So, let me ask this: If you are sitting here watching at home, could you take one paycheck from this year, one paycheck, and just throw it out the window? Probably not.

Now, if you are part of the coastal elite and the woke, yuppie, Zoom class that is the base of the Democratic Party, you might be able to afford that. You might just go to two Pilates classes a week instead of four. You may not take that second trip to Europe. You may scale back at Whole Foods. You have that luxury if you are part of the woke Democratic base. But if you are somebody in Pittsburgh who is a retired steel worker that is on a fixed income, this hurts you. You don't have that disposable income. If you are a natural gas driller in Oklahoma that has to drive to a drill site every day to actually produce something, you have to fill your tank with gas. You don't have the option to sit at home and pretend you are working on Zoom. If you are a woman that has to drive, for example, to a diner to work a shift, you don't have the luxury of not doing that. You have to bear the burden of the inflation; again, the inflation that is being caused by the radical left policies of the Democratic Party.

Yet, despite this real economic pain, Democrats continue to want to put billions of dollars in the economy, billions in corporate handouts. They want to undo Republican tax cuts and policies that actually led to the lowest unemployment rates we have had in 50 years.

So, rather than forcing Americans to pay for their radical socialist agenda, my colleagues across the aisle should use the time to work with Republicans on policies that American families will benefit from and allow American companies to actually compete in a global economy. And we can do that all simply by reducing regulation and reducing taxation. And how about we unleash our domestic energy supply?

So I urge my colleagues to vote ''no'' on the previous question and ''no'' on the rule.

Madam Speaker, I yield back the balance of my time

Mr. MORELLE. Madam Speaker, I yield myself the balance of my time.

I thank my great friend and colleague for the opportunity to engage in a thoughtful conversation about issues where we may agree and we may disagree, but I always appreciate him.

I would just note, though, that all the conversations I have had over the last many, many months about American competitiveness has largely been with my chamber of commerce, with business leaders, CEOs of companies who are desperate that we continue to move forward in repairing the challenges of our microelectronic supply chain. I haven't heard from any Socialists about it. They may have different communication with people, but I have heard from the business community; I have heard from economic drivers; I have heard from innovators; I have heard from entrepreneurs about the need to make this go.

Madam Speaker, I want to, first of all, thank my colleagues who have spoken in support of the rule. I want to thank those who have put this bill before us. Support for this rule showcases a commitment to American leadership in research, manufacturing, and innovation for decades to come. It showcases a commitment to lowering costs for families, creating job opportunities, and building long-term economic stability that will uplift families across this country. It showcases a commitment to investing in regional innovation and leveraging the significant untapped potential that so many communities hold, including my own in Rochester, New York.

We can't afford to wait any longer to make these critical investments. We must join our colleagues in the Senate and show the American people we are committed to taking on China and reestablishing our place on the global stage as a force to be reckoned with.

This is a pivotal moment in our Nation's history. We must meet it head-on and deliver investments that will ensure every family in every community has the opportunity to achieve the American Dream. This legislation will do just that.

Madam Speaker, I urge a ''yes'' vote on the rule and the previous question.

The text of the material previously referred to by Mr. RESCHENTHALER is as follows:

AMENDMENT TO HOUSE RESOLUTION 1289

At the end of the resolution, add the following:

SEC. 8. Immediately upon adoption of this resolution, the House shall proceed to the consideration in the House of the resolution (H. Res. 1290) expressing the sense of the House of Representatives that two consecutive quarters of negative growth in gross domestic product, as reported by the Bureau of Economic Analysis, constitutes a recession. The resolution shall be considered as read. The previous question shall be considered as ordered on the resolution and preamble to adoption without intervening motion or demand for division of the question except one hour of debate equally divided and controlled by the chair and ranking minority member of the Committee on Oversight and Reform. Clause 1(c) of rule XIX shall not apply to the consideration of House Resolution 1290.

Mr. MORELLE. Madam Speaker, I yield back the balance of my time, and I move the previous question on the resolution.

The SPEAKER pro tempore. The question is on ordering the previous question.

The question was taken; and the Speaker pro tempore announced that the ayes appeared to have it.

Mr. RESCHENTHALER. Madam Speaker, on that I demand the yeas and nays.

The yeas and nays were ordered.

The SPEAKER pro tempore. Pursuant to clause 9 of rule XX, the Chair will reduce to 5 minutes the minimum time for any electronic vote on the question of adoption of the resolution.

The vote was taken by electronic device, and there were—yeas 218, nays 208, not voting 4, as follows:

[Roll No. 402]

YEAS—218

Adams
Aguilar
Allred
Auchincloss
Axne
Barragán
Bass
Beatty
Bera
Beyer
Bishop (GA)
Blumenauer
Blunt Rochester
Bonamici
Bourdeaux
Bowman
Boyle, Brendan F.
Brown (MD)
Brown (OH)
Brownley
Bush
Bustos
Butterfield
Carbajal
Cárdenas
Carson
Carter (LA)
Cartwright
Case
Casten
Castor (FL)
Castro (TX)
Cherfilus-McCormick
Chu
Cicilline
Clark (MA)
Clarke (NY)
Cleaver
Clyburn
Cohen
Connolly
Cooper
Correa
Costa
Courtney
Craig
Crist
Crow
Cuellar
Davids (KS)
Davis, Danny K.
Dean
DeFazio
DeGette
DeLauro
DelBene
Demings
DeSaulnier
Deutch
Dingell
Doggett
Doyle, Michael F.
Escobar
Eshoo
Espaillat
Evans
Fletcher
Foster
Frankel, Lois
Gallego
Garamendi
García (IL)
Garcia (TX)
Golden
Gomez
Gonzalez, Vicente
Gottheimer
Green, Al (TX)
Grijalva
Harder (CA)
Hayes
Higgins (NY)
Himes
Horsford
Houlahan
Hoyer
Huffman
Jackson Lee
Jacobs (CA)
Jayapal
Jeffries
Johnson (GA)
Johnson (TX)
Jones
Kahele
Kaptur
Keating
Kelly (IL)
Khanna
Kildee
Kilmer
Kim (NJ)
Kind
Kirkpatrick
Krishnamoorthi
Kuster
Lamb
Langevin
Larsen (WA)
Larson (CT)
Lawrence
Lawson (FL)
Lee (CA)
Lee (NV)
Leger Fernandez
Levin (CA)
Levin (MI)
Lieu
Lofgren
Lowenthal
Luria
Lynch
Malinowski
Maloney, Carolyn B.
Maloney, Sean
Manning
Matsui
McBath
McCollum
McEachin
McGovern
McNerney
Meeks
Meng
Mfume
Moore (WI)
Morelle
Moulton
Mrvan
Murphy (FL)
Nadler
Napolitano
Neal
Neguse
Newman
Norcross
O'Halleran
Ocasio-Cortez
Omar
Pallone
Panetta
Pappas
Pascrell
Payne
Perlmutter
Peters
Phillips
Pingree
Pocan
Porter
Pressley
Price (NC)
Quigley
Raskin
Rice (NY)
Ross
Roybal-Allard
Ruiz
Ruppersberger
Rush
Ryan
Sánchez
Sarbanes
Scanlon
Schiff
Schneider
Schrader
Schrier
Scott (VA)
Scott, David
Sewell
Sherman
Sherrill
Sires
Slotkin
Smith (WA)
Soto
Spanberger
Speier
Stansbury

Stanton
Stevens
Strickland
Suozzi
Swalwell
Takano
Thompson (CA)
Thompson (MS)
Titus
Tlaib
Tonko
Torres (CA)
Torres (NY)
Trahan
Trone
Underwood
Vargas
Veasey
Velázquez
Wasserman Schultz
Waters
Watson Coleman
Welch
Wexton
Wild
Williams (GA)
Wilson (FL)
Yarmuth

NAYS—208

Aderholt
Allen
Amodei
Armstrong
Arrington
Babin
Bacon
Baird
Balderson
Banks
Barr
Bentz
Bergman
Bice (OK)
Biggs
Bilirakis
Bishop (NC)
Boebert
Bost
Brady
Brooks
Buchanan
Buck
Bucshon
Budd
Burchett
Burgess
Calvert
Cammack
Carey
Carl
Carter (GA)
Carter (TX)
Cawthorn
Chabot
Cheney
Cline
Cloud
Clyde
Cole
Comer
Conway
Crawford
Crenshaw
Curtis
Davidson
Davis, Rodney
DesJarlais
Diaz-Balart
Donalds
Duncan
Dunn
Ellzey
Emmer
Estes
Fallon
Feenstra
Ferguson
Fischbach
Fitzgerald
Fitzpatrick
Fleischmann
Flood
Flores
Foxx
Franklin, C. Scott
Fulcher
Gaetz
Gallagher
Garbarino
Garcia (CA)
Gibbs
Gimenez
Gohmert
Gonzales, Tony
Gonzalez (OH)
Good (VA)
Gooden (TX)
Gosar
Granger
Graves (LA)
Graves (MO)
Green (TN)
Greene (GA)
Griffith
Grothman
Guest
Guthrie
Harris
Harshbarger
Hern
Herrell
Herrera Beutler
Hice (GA)
Higgins (LA)
Hill
Hinson
Hudson
Huizenga
Issa
Jackson
Jacobs (NY)
Johnson (LA)
Johnson (OH)
Johnson (SD)
Jordan
Joyce (OH)
Joyce (PA)
Katko
Keller
Kelly (MS)
Kelly (PA)
Kim (CA)
Kustoff
LaHood
LaMalfa
Lamborn
Latta
LaTurner
Lesko
Letlow
Long
Loudermilk
Lucas
Luetkemeyer
Mace
Malliotakis
Mann
Massie
Mast
McCarthy
McCaul
McClain
McClintock
McHenry
McKinley
Meijer
Meuser
Miller (IL)
Miller (WV)
Miller-Meeks
Moolenaar
Mooney
Moore (AL)
Moore (UT)
Mullin
Murphy (NC)
Nehls
Newhouse
Norman
Obernolte
Owens
Palazzo
Palmer
Pence
Perry
Pfluger
Posey
Reschenthaler
Rice (SC)
Rodgers (WA)
Rogers (AL)
Rogers (KY)
Rose
Rosendale
Rouzer
Roy
Rutherford
Salazar
Scalise
Schweikert
Scott, Austin
Sessions
Simpson
Smith (MO)
Smith (NE)
Smith (NJ)
Smucker
Spartz
Stauber
Steel
Stefanik
Steil
Steube
Stewart
Taylor
Tenney
Thompson (PA)
Tiffany
Timmons
Turner
Upton
Valadao
Van Drew
Van Duyne
Wagner
Walberg
Walorski
Waltz
Weber (TX)
Webster (FL)
Wenstrup
Westerman
Williams (TX)
Wilson (SC)
Wittman
Womack
Zeldin

NOT VOTING—4

Hartzler
Hollingsworth
Kinzinger
Schakowsky

□ 1241

Mr. BOST, Mrs. FLORES, and Mr. GARCÍA of California changed their vote from ''yea'' to ''nay.''

So the previous question was ordered.

The result of the vote was announced as above recorded.

MEMBERS RECORDED PURSUANT TO HOUSE RESOLUTION 8, 117TH CONGRESS

Babin (Weber (TX))
Bass (Neguse)
Blumenauer (Beyer)
Bourdeaux (Correa)
Boyle, Brendan F. (Neguse)
Brown (MD) (Trone)
Bush (Bowman)
Carter (LA) (Neguse)
Carter (TX) (Weber (TX))
Cherfilus-McCormick (Neguse)
Crist (Wasserman Schultz)
DeSaulnier (Beyer)
Evans (Beyer)
Gosar (Gaetz)
Green (TN) (Fleischmann)
Guthrie (Barr)
Huffman (Neguse)
Jones (Beyer)
Joyce (PA) (Keller)
Kahele (Correa)
Kirkpatrick (Pallone)
Levin (MI) (Correa)
McBath (Bishop (GA))
McNerney (Pallone)
Meeks (Velázquez)
Moore (WI) (Beyer)
Rice (SC) (Meijer)
Ruppersberger (Trone)
Rush (Bishop (GA))
Sires (Pallone)
Stevens (Kuster)
Stewart (Crawford)
Taylor (Weber (TX))
Thompson (CA) (Beyer)
Vargas (Correa)
Walorski (Banks)
Williams (GA) (Neguse)
Wilson (SC) (Norman)

The SPEAKER pro tempore (Mr. MRVAN). The question is on the resolution.

The question was taken; and the Speaker pro tempore announced that the ayes appeared to have it.

Mr. RESCHENTHALER. Mr. Speaker, on that I demand the yeas and nays.

The yeas and nays were ordered.

This will be a 5-minute vote.

The vote was taken by electronic device, and there were—yeas 216, nays 208, not voting 6, as follows:

[Roll No. 403]

YEAS—216

Adams
Aguilar
Allred
Auchincloss
Axne
Barragán
Bass
Beatty
Bera
Beyer
Bishop (GA)
Blumenauer
Blunt Rochester
Bonamici
Bourdeaux
Bowman
Boyle, Brendan F.
Brown (MD)
Brown (OH)
Brownley
Bush
Bustos
Butterfield
Carbajal
Cárdenas
Carson
Carter (LA)
Cartwright
Case
Casten
Castor (FL)
Castro (TX)
Cherfilus-McCormick
Chu
Cicilline
Clark (MA)
Clarke (NY)
Cleaver
Clyburn
Cohen
Connolly
Cooper
Correa
Costa
Courtney
Craig
Crist
Crow
Cuellar
Davids (KS)
Davis, Danny K.
Dean
DeFazio
DeGette
DeLauro
DelBene
Demings
DeSaulnier
Deutch
Dingell
Doggett
Doyle, Michael F.
Escobar
Eshoo
Espaillat
Evans
Fletcher
Foster
Gallego
Garamendi
García (IL)
Garcia (TX)
Gomez
Gonzalez, Vicente
Gottheimer
Green, Al (TX)
Grijalva
Harder (CA)
Hayes
Higgins (NY)
Himes
Horsford
Houlahan
Hoyer
Huffman
Jackson Lee
Jacobs (CA)
Jayapal
Jeffries
Johnson (GA)
Johnson (TX)
Jones
Kahele
Kaptur
Keating
Kelly (IL)
Kildee
Kilmer
Kim (NJ)
Kind
Kirkpatrick
Krishnamoorthi
Kuster
Lamb
Langevin
Larsen (WA)
Larson (CT)
Lawrence
Lawson (FL)
Lee (CA)
Lee (NV)
Leger Fernandez
Levin (CA)
Levin (MI)
Lieu
Lofgren
Lowenthal
Luria
Lynch
Malinowski
Maloney, Carolyn B.
Maloney, Sean
Manning
Matsui
McBath
McCollum
McEachin
McGovern
McNerney
Meeks
Meng
Mfume
Moore (WI)
Morelle
Moulton
Mrvan
Murphy (FL)
Nadler
Napolitano
Neal
Neguse
Newman
Norcross
O'Halleran
Ocasio-Cortez
Omar
Pallone
Panetta
Pappas
Pascrell
Payne
Perlmutter
Peters
Phillips
Pingree
Pocan
Porter
Pressley
Price (NC)
Quigley
Raskin
Rice (NY)
Ross
Roybal-Allard
Ruiz
Ruppersberger
Rush
Ryan
Sánchez
Sarbanes
Scanlon
Schakowsky
Schiff
Schneider
Schrader
Schrier
Scott (VA)
Scott, David
Sewell
Sherman
Sherrill
Sires
Slotkin
Smith (WA)
Soto
Spanberger
Speier
Stansbury
Stanton
Stevens
Strickland
Suozzi
Swalwell
Takano
Thompson (CA)
Thompson (MS)
Titus
Tlaib
Tonko
Torres (CA)
Torres (NY)
Trahan
Trone
Underwood
Vargas
Veasey
Velázquez
Wasserman Schultz
Waters
Watson Coleman
Welch
Wexton
Wild
Williams (GA)
Wilson (FL)
Yarmuth

NAYS—208

Allen
Amodei
Armstrong
Arrington
Babin
Bacon
Baird
Balderson
Banks
Barr
Bentz
Bergman
Bice (OK)
Biggs
Bilirakis
Bishop (NC)
Boebert
Bost
Brady
Brooks
Buchanan
Buck
Bucshon
Budd
Burchett
Burgess
Calvert
Cammack
Carey
Carl
Carter (GA)
Carter (TX)
Cawthorn
Chabot
Cheney
Cline
Cloud
Clyde
Cole
Comer
Conway
Crawford
Crenshaw
Davidson
Davis, Rodney
DesJarlais
Diaz-Balart
Donalds
Duncan
Dunn
Ellzey
Emmer
Estes
Fallon
Feenstra
Ferguson
Fischbach
Fitzgerald
Fitzpatrick
Fleischmann
Flood
Flores
Foxx
Franklin, C. Scott
Fulcher
Gaetz
Gallagher
Garbarino
Garcia (CA)
Gibbs
Gimenez
Gohmert
Golden
Gonzales, Tony
Gonzalez (OH)
Good (VA)
Gooden (TX)
Gosar
Granger
Graves (LA)
Graves (MO)
Green (TN)
Greene (GA)
Griffith
Grothman
Guest
Guthrie
Harris
Harshbarger
Hern
Herrell
Herrera Beutler
Hice (GA)
Higgins (LA)
Hill
Hinson
Hollingsworth
Hudson
Huizenga
Issa
Jackson
Jacobs (NY)
Johnson (LA)
Johnson (OH)
Johnson (SD)
Jordan
Joyce (OH)
Joyce (PA)
Katko
Keller
Kelly (MS)
Kelly (PA)
Kim (CA)
Kustoff
LaHood
LaMalfa
Lamborn
Latta
LaTurner
Lesko
Letlow
Long
Loudermilk
Lucas
Luetkemeyer
Mace
Malliotakis
Mann
Massie
Mast
McCarthy
McCaul
McClain
McClintock
McHenry
McKinley
Meijer
Meuser
Miller (IL)
Miller (WV)
Miller-Meeks
Moolenaar
Mooney
Moore (AL)
Moore (UT)
Mullin
Murphy (NC)
Nehls
Newhouse
Norman
Obernolte
Owens
Palazzo
Palmer
Pence
Perry
Pfluger
Posey
Reschenthaler
Rice (SC)
Rodgers (WA)
Rogers (AL)
Rogers (KY)
Rose
Rosendale
Rouzer
Roy
Rutherford
Salazar
Scalise
Schweikert
Scott, Austin
Sessions
Simpson
Smith (MO)
Smith (NE)
Smith (NJ)
Smucker
Spartz
Stauber
Steel
Stefanik
Steil
Steube
Stewart
Taylor
Tenney
Thompson (PA)
Tiffany
Timmons
Turner
Upton
Valadao
Van Drew
Van Duyne
Wagner
Walberg
Walorski
Waltz
Weber (TX)
Webster (FL)
Wenstrup
Westerman
Williams (TX)
Wilson (SC)
Wittman
Womack
Zeldin

NOT VOTING—6

Aderholt
Curtis
Frankel, Lois
Hartzler
Khanna
Kinzinger

□ 1253

So the resolution was agreed to.

The result of the vote was announced as above recorded.

A motion to reconsider was laid on the table.

Stated for:

Ms. LOIS FRANKEL of Florida. Mr. Speaker, had I been present, I would have voted "yea" on rollcall No. 403.

MEMBERS RECORDED PURSUANT TO HOUSE RESOLUTION 8, 117TH CONGRESS

Babin (Weber (TX))	Evans (Beyer)	Moore (WI) (Beyer)
Bass (Neguse)	Gosar (Gaetz)	Rice (SC) (Meijer)
Blumenauer (Beyer)	Green (TN) (Fleischmann)	Ruppersberger (Trone)
Bourdeaux (Correa)	Guthrie (Barr)	Rush (Bishop (GA))
Boyle, Brendan F. (Neguse)	Huffman (Neguse)	Sires (Pallone)
Bush (Bowman)	Jones (Beyer)	Stevens (Kuster)
Carter (LA) (Neguse)	Joyce (PA) (Keller)	Stewart (Crawford)
Carter (TX) (Weber (TX))	Kahele (Correa)	Taylor (Weber (TX))
Cherfilus-McCormick (Neguse)	Kirkpatrick (Pallone)	Thompson (CA) (Beyer)
Crist (Wasserman Schultz)	Levin (MI) (Correa)	Vargas (Correa)
DeSaulnier (Beyer)	McBath (Bishop (GA))	Walorski (Banks)
	McNerney (Pallone)	Williams (GA) (Neguse)
	Meeks (Velázquez)	Wilson (SC) (Norman)

MESSAGE FROM THE PRESIDENT

A message in writing from the President of the United States was communicated to the House by Mr. Adrian Swann, one of his secretaries.

LEGISLATIVE BRANCH APPROPRIATIONS ACT, 2022

Ms. JOHNSON of Texas. Mr. Speaker, pursuant to House Resolution 1289, I call up the bill (H.R. 4346) making appropriations for Legislative Branch for the fiscal year ending September 30, 2022, and for other purposes, with the Senate amendment to the House amendment to the Senate amendment thereto, and ask for its immediate consideration.

The Clerk read the title of the bill.

The SPEAKER pro tempore. The Clerk will designate the Senate amendment to the House amendment to the Senate amendment.

Senate amendment to the House amendment to the Senate amendment:

In lieu of the matter proposed to be inserted by the amendment of the House to the amendment of the Senate, insert the following:

SECTION 1. TABLE OF CONTENTS.

The table of contents for this Act is as follows:

Sec. 1. Table of contents.
Sec. 2. References.

DIVISION A—CHIPS ACT OF 2022

Sec. 101. Short title.
Sec. 102. Creating helpful incentives to produce semiconductors (CHIPS) for America fund.
Sec. 103. Semiconductor incentives.
Sec. 104. Opportunity and inclusion.
Sec. 105. Additional GAO reporting requirements.
Sec. 106. Appropriations for wireless supply chain innovation.
Sec. 107. Advanced manufacturing investment credit.

DIVISION B—RESEARCH AND INNOVATION

Sec. 10000. Table of contents.
Sec. 10001. Short title.
Sec. 10002. Definitions.
Sec. 10003. Budgetary effects.

TITLE I—DEPARTMENT OF ENERGY SCIENCE FOR THE FUTURE

Sec. 10101. Mission of the Office of Science.
Sec. 10102. Basic energy sciences program.
Sec. 10103. Biological and environmental research.
Sec. 10104. Advanced scientific computing research program.
Sec. 10105. Fusion energy research.
Sec. 10106. High energy physics program.
Sec. 10107. Nuclear physics program.
Sec. 10108. Science laboratories infrastructure program.
Sec. 10109. Accelerator research and development.
Sec. 10110. Isotope research, development, and production.
Sec. 10111. Increased collaboration with teachers and scientists.
Sec. 10112. High intensity laser research initiative; helium conservation program; Office of Science emerging biological threat preparedness research initiative; midscale instrumentation and research equipment program; authorization of appropriations.
Sec. 10113. Established program to stimulate competitive research.
Sec. 10114. Research security.

TITLE II—NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY FOR THE FUTURE

Sec. 10201. Definitions.

Subtitle A—Authorization of Appropriations

Sec. 10211. Authorization of appropriations.

Subtitle B—Measurement Research

Sec. 10221. Engineering biology and biometrology.
Sec. 10222. Greenhouse gas measurement research.
Sec. 10223. NIST authority for cybersecurity and privacy activities.
Sec. 10224. Software security and authentication.
Sec. 10225. Digital identity management research.
Sec. 10226. Biometrics research and testing.
Sec. 10227. Federal biometric performance standards.
Sec. 10228. Protecting research from cybersecurity theft.
Sec. 10229. Dissemination of resources for research institutions.
Sec. 10230. Advanced communications research.
Sec. 10231. Neutron scattering.
Sec. 10232. Artificial intelligence.
Sec. 10233. Sustainable chemistry research and education.
Sec. 10234. Premise plumbing research.
Sec. 10235. Dr. David Satcher Cybersecurity Education Grant Program.

Subtitle C—General Activities

Sec. 10241. Educational outreach and support for underrepresented communities.
Sec. 10242. Other transactions authority.
Sec. 10243. Report to Congress on collaborations with government agencies.
Sec. 10244. Hiring critical technical experts.
Sec. 10245. International standards development.
Sec. 10246. Standard technical update.
Sec. 10247. GAO study of NIST research security policies and protocols.
Sec. 10248. Standards development organization grants.

Subtitle D—Hollings Manufacturing Extension Partnership

Sec. 10251. Establishment of expansion awards pilot program as a part of the Hollings Manufacturing Extension Partnership.
Sec. 10252. Update to Hollings Manufacturing Extension Partnership.
Sec. 10253. National Supply Chain Database.
Sec. 10254. Hollings Manufacturing Extension Partnership activities.
Sec. 10255. Amendment to the Hollings Manufacturing Extension Partnership relating to institutions of higher education.

Subtitle E—Manufacturing USA Program

Sec. 10261. Supporting geographic diversity.
Sec. 10262. Expanding opportunities through the Manufacturing USA Program.
Sec. 10263. Promoting domestic production of technologies developed under Manufacturing USA Program.

TITLE III—NATIONAL SCIENCE FOUNDATION FOR THE FUTURE

Subtitle A—Preliminary Matters

Sec. 10301. Sense of Congress.
Sec. 10302. Definitions.
Sec. 10303. Authorization of appropriations.

Subtitle B—STEM Education

Sec. 10311. PreK–12 STEM education.
Sec. 10312. Undergraduate STEM education.
Sec. 10313. Graduate STEM education.
Sec. 10314. STEM workforce data.
Sec. 10315. Cyber workforce development research and development.
Sec. 10316. Federal cyber scholarship-for-service program.
Sec. 10317. Cybersecurity workforce data initiative.
Sec. 10318. Microelectronics workforce development activities.
Sec. 10319. Incorporation of art and design into certain STEM education.
Sec. 10320. Mandatory cost-sharing.
Sec. 10321. Programs to address the STEM workforce.

Subtitle C—Broadening Participation

Sec. 10321. Presidential awards for excellence in mathematics and science.
Sec. 10322. Robert Noyce Teacher Scholarship program update.
Sec. 10323. NSF Eddie Bernice Johnson INCLUDES Initiative.
Sec. 10324. Broadening participation on major facilities awards.
Sec. 10325. Expanding geographic and institutional diversity in research.
Sec. 10326. Diversity in tech research.
Sec. 10327. Chief Diversity Officer of the NSF.
Sec. 10328. Research and dissemination to increase the participation of women and underrepresented minorities in STEM fields.
Sec. 10329. Activities to expand STEM opportunities.
Sec. 10330. Intramural emerging research institutions pilot program.

Subtitle D—NSF Research Security

Sec. 10331. Office of Research Security and Policy.
Sec. 10332. Chief of Research Security.
Sec. 10333. Reporting to Congress.
Sec. 10334. Online resource.
Sec. 10335. Research awards.
Sec. 10336. Authorities.
Sec. 10337. Responsible conduct in research training.
Sec. 10338. Research security and integrity information sharing analysis organization.
Sec. 10339. Plan with respect to controlled information and background screening.
Sec. 10339A. Foundation funding to institutions hosting or supporting Confucius Institutes.
Sec. 10339B. Foreign financial support.
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Subtitle E—Fundamental Research

Sec. 10341. Broader impacts.

Sec. 10342. Sense of Congress.
Sec. 10343. Research ethics.
Sec. 10344. Research reproducibility and replicability.
Sec. 10345. Climate change research.
Sec. 10346. Social, behavioral, and economic sciences.
Sec. 10347. Measuring impacts of Federally funded research and development.
Sec. 10348. Food-energy-water research.
Sec. 10349. Biological Field Stations and Marine Laboratories.
Sec. 10350. Sustainable chemistry research and education.
Sec. 10351. Risk and resilience research.
Sec. 10352. Unmanned aircraft systems technologies.
Sec. 10353. Accelerating unmanned maritime systems technologies.
Sec. 10354. Leveraging international expertise in research.
Sec. 10355. Biological research collections.
Sec. 10356. Clean water research and technology acceleration.
Sec. 10357. Technology and behavioral science research.
Sec. 10358. Manufacturing research amendment.
Sec. 10359. Critical minerals mining research and development.
Sec. 10360. Study of AI research capacity.
Sec. 10361. Advancing IoT for Precision Agriculture Capabilities Act.
Sec. 10362. Astronomy and satellite constellations.
Sec. 10363. Research on the impact of inflation.
Sec. 10364. Microgravity utilization policy.
Sec. 10365. Recognition of the Arecibo Observatory.

Subtitle F—Research Infrastructure

Sec. 10371. Facility operation and maintenance.
Sec. 10372. Reviews.
Sec. 10373. Helium conservation.
Sec. 10374. Advanced computing.
Sec. 10375. National secure data service.

Subtitle G—Directorate for Technology, Innovation, and Partnerships

Sec. 10381. Establishment.
Sec. 10382. Purposes.
Sec. 10383. Activities.
Sec. 10384. Requirements.
Sec. 10385. Assistant Director.
Sec. 10386. Advisory committee.
Sec. 10387. Challenges and focus areas.
Sec. 10388. Regional Innovation Engines.
Sec. 10389. Translation accelerator.
Sec. 10390. Test beds.
Sec. 10391. Planning and capacity building awards.
Sec. 10392. Entrepreneurial fellowships.
Sec. 10393. Scholarships and fellowships.
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Sec. 10395. Scaling innovations in PreK–12 STEM education.
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Sec. 10397. Coordination of activities.
Sec. 10398. Ethical, legal, and societal considerations.
Sec. 10399. Reports and roadmaps.
Sec. 10399A. Evaluation.

Subtitle H—Administrative Amendments

Sec. 10399D. Supporting veterans in STEM careers.
Sec. 10399E. Sunshine Act compliance.
Sec. 10399F. Science and engineering indicators report submission.

TITLE IV—BIOECONOMY RESEARCH AND DEVELOPMENT

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Sec. 10402. National engineering biology research and development initiative.
Sec. 10403. Initiative coordination.
Sec. 10404. Advisory committee on engineering biology research and development.
Sec. 10405. External review of ethical, legal, environmental, safety, security, and societal issues.
Sec. 10406. Agency activities.
Sec. 10407. Rule of construction.

TITLE V—BROADENING PARTICIPATION IN SCIENCE

Subtitle A—STEM Opportunities

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Sec. 10502. Collection and reporting of data on federal research awards.
Sec. 10503. Policies for review of Federal research awards.
Sec. 10504. Collection of data on demographics of faculty.
Sec. 10505. Cultural and institutional barriers to expanding the academic and Federal STEM workforce.
Sec. 10506. Existing activities.
Sec. 10507. Report to Congress.
Sec. 10508. Merit review.
Sec. 10509. Determination of budgetary effects.
Sec. 10510. Definition.

Subtitle B—Rural STEM Education Research

Sec. 10511. Definition.
Sec. 10512. National Science Foundation rural STEM activities.
Sec. 10513. Opportunities for online education.
Sec. 10514. National Academies evaluation.
Sec. 10515. GAO review.
Sec. 10516. NIST engagement with rural communities.

Subtitle C—MSI STEM Achievement

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Sec. 10522. Agency responsibilities.
Sec. 10523. Research at the National Science Foundation.
Sec. 10524. Capacity-building program for developing universities.
Sec. 10525. Tribal Colleges and Universities program.
Sec. 10526. Definitions.

Subtitle D—Combating Sexual Harassment in Science

Sec. 10531. Findings.
Sec. 10532. Purpose.
Sec. 10533. Definition.
Sec. 10534. Research awards.
Sec. 10535. Responsible Conduct Guide.
Sec. 10536. Interagency working group.
Sec. 10537. National Academies assessment.
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Sec. 10539. Authorization of appropriations.

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Subtitle B—National Science and Technology Strategy

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Sec. 10612. Strategy and report on the Nation's economic security, science, research, and innovation to support the national security strategy.
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Sec. 10621. Regional innovation capacity.
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Sec. 10631. Requirements for foreign talent recruitment programs.
Sec. 10632. Malign foreign talent recruitment program prohibition.
Sec. 10633. Review of contracts and agreements.
Sec. 10634. Research security training requirement for Federal research award personnel.
Sec. 10635. Research funds accounting.
Sec. 10636. Person or entity of concern prohibition.
Sec. 10637. Nondiscrimination.
Sec. 10638. Definitions.

Subtitle E—Coastal and Ocean Acidification Research and Innovation

Sec. 10641. Short title.
Sec. 10642. Purposes.
Sec. 10643. Definitions.
Sec. 10644. Interagency working group.
Sec. 10645. Strategic research plan.
Sec. 10646. NOAA ocean acidification activities.
Sec. 10647. NSF ocean acidification activities.
Sec. 10648. NASA ocean acidification activities.
Sec. 10649. Authorization of appropriations.

Subtitle F—Interagency Working Group

Sec. 10651. Interagency working group.

Subtitle G—Quantum Networking and Communications

Sec. 10661. Quantum networking and communications.

Subtitle H—Blockchain Specialist

Sec. 10671. Establishment of blockchain and cryptocurrency specialist position within OSTP.

Subtitle I—Partnerships for Energy Security and Innovation

Sec. 10691. Foundation for Energy Security and Innovation.

Subtitle J—Energizing Technology Transfer

Sec. 10701. Definitions.

PART 1—NATIONAL CLEAN ENERGY TECHNOLOGY TRANSFER PROGRAMS

Sec. 10713. National clean energy incubator program.
Sec. 10714. Clean energy technology university prize competition.
Sec. 10715. Clean energy technology transfer coordination.

PART 2—SUPPORTING TECHNOLOGY DEVELOPMENT AT THE NATIONAL LABORATORIES

Sec. 10716. Lab partnering service pilot program.
Sec. 10717. Lab-embedded entrepreneurship program.
Sec. 10718. Small business voucher program.
Sec. 10719. Entrepreneurial leave program.
Sec. 10720. National Laboratory non-Federal employee outside employment authority.

PART 3—DEPARTMENT OF ENERGY MODERNIZATION

Sec. 10722. Office of Technology Transitions.
Sec. 10723. Management of Department of Energy demonstration projects.
Sec. 10724. Streamlining prize competitions.
Sec. 10725. Cost-share waiver extension.
Sec. 10726. Special hiring authority for scientific, engineering, and project management personnel.
Sec. 10727. Technology transfer reports and evaluation.

Subtitle K—Micro Act

Sec. 10731. Microelectronics research for energy innovation.

Subtitle L—National Nuclear University Research Infrastructure Reinvestment

Sec. 10741. Short title.
Sec. 10742. Purposes.
Sec. 10743. University infrastructure collaboration.
Sec. 10744. Advanced nuclear research infrastructure enhancement subprogram.
Sec. 10745. Science education and human resources scholarships, fellowships, and research and development projects.

Subtitle M—Steel Upgrading Partnerships and Emissions Reduction

Sec. 10751. Low-emissions steel manufacturing research program.

Subtitle N—Applied Laboratories Infrastructure Restoration and Modernization

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Subtitle P—Fission for the Future
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Sec. 10812. Space Launch System configurations.
Sec. 10813. Rocket engine test infrastructure.
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Sec. 10822. Search for life.
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Subtitle D—Space Technology
Sec. 10841. Space nuclear capabilities.
Sec. 10842. Prioritization of low-enriched uranium technology.
Subtitle E—STEM Engagement
Sec. 10851. Office of STEM Engagement.
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Sec. 10861. Program, workforce, and industrial base reviews.
Sec. 10862. Modification of lease of non-excess property.
DIVISION C—SUPPLEMENTAL APPROPRIATIONS TO ADDRESS THREATS TO THE SUPREME COURT OF THE UNITED STATES

SEC. 2. REFERENCES.

Except as expressly provided otherwise, any reference to ''this Act'' contained in any division of this Act shall be treated as referring only to the provisions of that division.

DIVISION A—CHIPS ACT OF 2022

SEC. 101. SHORT TITLE.

This division may be cited as the ''CHIPS Act of 2022''.

SEC. 102. CREATING HELPFUL INCENTIVES TO PRODUCE SEMICONDUCTORS (CHIPS) FOR AMERICA FUND.

(a) CHIPS FOR AMERICA FUND.—

(1) ESTABLISHMENT.—There is established in the Treasury of the United States a fund to be known as the ''Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America Fund'' (referred to in this subsection as the ''Fund'') for the Secretary of Commerce to carry out sections 9902, 9904, and 9906 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4652, 4654, and 4656; Public Law 116–283). Amounts in the Fund to carry out sections 9904 and 9906 of Public Law 116–283 shall be transferred to and merged with accounts within the Department of Commerce to be used for such purposes, except that amounts transferred to carry out section 9904 of Public Law 116–283 shall remain available until September 30, 2025.

(2) APPROPRIATION.—

(A) In addition to amounts otherwise available for such purposes, there is appropriated to the Fund established in subsection (a)(1), out of amounts in the Treasury not otherwise appropriated—

(i) for fiscal year 2022, $24,000,000,000, to remain available until expended, of which $19,000,000,000 shall be for section 9902 of Public Law 116–283, $2,000,000,000 shall be for subsection (c) of section 9906 of Public Law 116–283, $2,500,000,000 shall be for subsection (d) of section 9906 of Public Law 116–283, and $500,000,000 shall be for subsections (e) and (f) of section 9906 of Public Law 116–283;

(ii) for fiscal year 2023, $7,000,000,000 to remain available until expended, of which $5,000,000,000 shall be for section 9902 of Public Law 116–283 and $2,000,000,000 shall be for subsections (c), (d), (e), and (f) of section 9906 of Public Law 116–283;

(iii) for fiscal year 2024, $6,300,000,000, to remain available until expended, of which $5,000,000,000 shall be for section 9902 of Public Law 116–283 and $1,300,000,000 shall be for subsections (c), (d), (e), and (f) of section 9906 of Public Law 116–283;

(iv) for fiscal year 2025, $6,100,000,000, to remain available until expended, of which $5,000,000,000 shall be for section 9902 of Public Law 116–283 and $1,100,000,000 shall be for subsections (c), (d), (e), and (f) of section 9906 of Public Law 116–283; and

(v) for fiscal year 2026, $6,600,000,000, to remain available until expended, of which $5,000,000,000 shall be for section 9902 of Public Law 116– 283 and $1,600,000,000 shall be for subsections (c), (d), (e), and (f) of section 9906 of Public Law 116–283.

(B) DIRECT LOANS AND LOAN GUARANTEES.—The Secretary of Commerce may use—

(i) up to $6,000,000,000 of the amounts made available for fiscal year 2022 for section 9902 of Public Law 116–283 for the cost of direct loans and loan guarantees, as authorized by section 9902 of Public Law 116–283, provided that—

(I) such costs, including the cost of modifying such loans and loan guarantees shall be as defined in section 502 of the Congressional Budget Act of 1974; and

(II) these funds are available to subsidize gross obligations for the principal amount of direct loans and total loan principal, any part of which is to be guaranteed, not to exceed $75,000,000,000;

(ii) up to 2 percent of the amounts made available in each fiscal year for salaries and expenses, administration, and oversight purposes to carry out sections 9902 and 9906 of Public Law 116–283, of which $5,000,000 in each of fiscal years 2022 through 2026 shall be transferred to the Office of Inspector General of the Department of Commerce to oversee expenditures from the Fund; and

(iii) up to $2,300,000 of the amounts made available in fiscal year 2022 to carry out section 9904 of Public Law 116–283.

(3) ASSISTANCE FOR MATURE TECHNOLOGY NODES.—Of the amount available in fiscal year 2022 to implement section 9902 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4652), $2,000,000,000 shall be to provide Federal financial assistance to covered entities to incentivize investment in facilities and equipment in the United States for the fabrication, assembly, testing, or packaging of semiconductors at mature technology nodes under subsection (e) of that section, as added by section 103 of this Act.

(4) ALLOCATION AUTHORITY.—

(A) SUBMISSION OF COST ESTIMATES.—The President shall submit to Congress detailed account, program, and project allocations of the full amount made available under subsection (a)(2)—

(i) for fiscal years 2022 and 2023, not later than 60 days after the date of enactment of this Act; and

(ii) for each subsequent fiscal year through 2026, as part of the annual budget submission of the President under section 1105(a) of title 31, United States Code.

(B) ALTERNATE ALLOCATION.—

(i) IN GENERAL.—The Committees on Appropriations of the House of Representatives and the Senate may provide for alternate allocation of amounts made available under subsection (a)(2), including by account, program, and project.

(ii) ALLOCATION BY PRESIDENT.—

(I) NO ALTERNATE ALLOCATIONS.—If Congress has not enacted legislation establishing alternate allocations, including by account, program, and project, by the date on which the Act making full-year appropriations for the Departments of Commerce and Justice, Science, and Related Agencies for the applicable fiscal year is enacted into law, only then shall amounts made available under subsection (a)(2) be allocated by the President or apportioned or allotted by account, program, and project pursuant to title 31, United States Code.

(II) INSUFFICIENT ALTERNATE ALLOCATION.—If Congress enacts legislation establishing alternate allocations, including by account, program, and project, for amounts made available under subsection (a)(2) that are less than the full amount appropriated under that subsection, the difference between the amount appropriated and the alternate allocation shall be allocated by the President and apportioned and allotted by account, program, and project pursuant to title 31, United States Code.

(b) CHIPS FOR AMERICA DEFENSE FUND.—

(1) ESTABLISHMENT.—There is established in the Treasury of the United States a fund to be known as the ''Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America Defense Fund'' (referred to in this subsection as the ''Fund'') to provide for those requirements that are necessary to carry out section 9903(b) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4653(b)). Amounts in the Fund shall be transferred to and merged with accounts within the Department of Defense to be used for such purposes. Amounts in the Fund or transferred to and merged with accounts within the Department of Defense may not be used for construction of facilities.

(2) APPROPRIATION.—In addition to amounts otherwise available for such purposes, there is appropriated to the Fund established in subsection (b)(1), out of amounts in the Treasury not otherwise appropriated—

(A) for fiscal year 2023, $400,000,000, to remain available until September 30, 2023;

(B) for fiscal year 2024, $400,000,000, to remain available until September 30, 2024;

(C) for fiscal year 2025, $400,000,000, to remain available until September 30, 2025;

(D) for fiscal year 2026, $400,000,000, to remain available until September 30, 2026; and

(E) for fiscal year 2027, $400,000,000, to remain available until September 30, 2027.

(3) ALLOCATION AUTHORITY.—

(A) SUBMISSION OF COST ESTIMATES.—The President shall submit to Congress detailed account, program element, and project allocations of the full amount made available under subsection (b)(2)—

(i) for fiscal year 2023, not later than 60 days after the date of enactment of this Act; and

(ii) for each subsequent fiscal year through 2027, as part of the annual budget submission of the President under section 1105(a) of title 31, United States Code.

(B) ALTERNATE ALLOCATION.—

(i) IN GENERAL.—The Committees on Appropriations of the House of Representatives and the Senate may provide for alternate allocation of amounts made available under subsection (b)(2), including by account, program element, and project.

(ii) ALLOCATION BY PRESIDENT.—

(I) NO ALTERNATE ALLOCATIONS.—If Congress has not enacted legislation establishing alternate allocations, including by account, program element, and project, by the date on which the Act making full-year appropriations for the Department of Defense for the applicable fiscal year is enacted into law, only then shall amounts made available under subsection (b)(2) be allocated by the President or apportioned or allotted by account, program element, and project pursuant to title 31, United States Code.

(II) INSUFFICIENT ALTERNATE ALLOCATION.—If Congress enacts legislation establishing alternate allocations, including by account, program element, and project, for amounts made available under subsection (b)(2) that are less than the full amount appropriated under that subsection, the difference between the amount appropriated and the alternate allocation shall be allocated by the President and apportioned and allotted by account, program element, and project pursuant to title 31, United States Code.

(c) CHIPS FOR AMERICA INTERNATIONAL TECHNOLOGY SECURITY AND INNOVATION FUND.—

(1) ESTABLISHMENT.—There is established in the Treasury of the United States a fund to be known as the ''Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America International Technology Security and Innovation Fund'' (referred to in this subsection as the ''Fund'') to provide for international information and communications technology security and semiconductor supply chain activities, including to support the development and adoption of secure and trusted telecommunications technologies, secure semiconductors, secure semiconductors supply chains, and other emerging technologies and to carry out sections 9905 and 9202(a)(2) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4655 and 47 U.S.C. 906(a)(2)), as appropriate. Amounts in the Fund shall be transferred by the Secretary of State to accounts within the Department of State, the United States Agency for International Development, the Export-Import Bank, and the United States International Development Finance Corporation, as appropriate, to be used for such purposes and under the terms and conditions of the account to which transferred.

(2) APPROPRIATION.—

(A) In addition to amounts otherwise available for such purposes, there is appropriated to the Fund established in subsection (c)(1), out of amounts in the Treasury not otherwise appropriated—

(i) for fiscal year 2023, $100,000,000, to remain available until September 30, 2027;

(ii) for fiscal year 2024, $100,000,000, to remain available until September 30, 2028;

(iii) for fiscal year 2025, $100,000,000, to remain available until September 30, 2029;

(iv) for fiscal year 2026, $100,000,000, to remain available until September 30, 2030; and

(v) for fiscal year 2027, $100,000,000, to remain available until September 30, 2031.

(B) USE.—In carrying out this subsection, the Secretary of State may use up to $5,000,000 of the amounts made available in each fiscal year for the Fund for salaries and expenses, administration, and oversight purposes, of which $500,000 in each of fiscal years 2023 through 2027 shall be transferred to the Office of Inspector General of the Department of State to oversee expenditures under the Fund.

(3) ALLOCATION AUTHORITY.—

(A) SUBMISSION OF COST ESTIMATES.—The President shall submit to Congress detailed account, program, project, and activity allocations of the full amount made available under subsection (c)(2)—

(i) for fiscal year 2023, not later than 90 days after the date of enactment of this Act; and

(ii) for each subsequent fiscal year through 2027, as part of the annual budget submission of the President under section 1105(a) of title 31, United States Code.

(B) ALTERNATE ALLOCATION.—

(i) IN GENERAL.—The Committees on Appropriations of the House of Representatives and the Senate may provide for alternate allocation of amounts made available under subsection (c)(2), including by account, program, project, and activity.

(ii) ALLOCATION BY PRESIDENT.—

(I) NO ALTERNATE ALLOCATIONS.—If Congress has not enacted legislation establishing alternate allocations, including by account, program, project, and activity, by the date on which the Act making full-year appropriations for the Department of State, Foreign Operations, and Related Programs for the applicable fiscal year is enacted into law, only then shall amounts made available under subsection (c)(2) be allocated by the President or apportioned or allotted by account, program, project, and activity pursuant to title 31, United States Code.

(II) INSUFFICIENT ALTERNATE ALLOCATION.—If Congress enacts legislation establishing alternate allocations, including by account, program, project, and activity, for amounts made available under subsection (c)(2) that are less than the full amount appropriated under that subsection, the difference between the amount appropriated and the alternate allocation shall be allocated by the President and apportioned and allotted by account, program, project, and activity pursuant to title 31, United States Code.

(d) CREATING HELPFUL INCENTIVES TO PRODUCE SEMICONDUCTORS (CHIPS) FOR AMERICA WORKFORCE AND EDUCATION FUND.—

(1) ESTABLISHMENT.—There is established in the Treasury of the United States a fund to be known as the ''Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America Workforce and Education Fund'' (referred to in this subsection as the ''Fund'') for the National Science Foundation for microelectronics workforce development activities to meet the requirements under section 9906 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4656).

(2) APPROPRIATION.—In addition to amounts otherwise available for such purposes, there is appropriated to the Fund established in subsection (d)(1), out of amounts in the Treasury not otherwise appropriated—

(A) for fiscal year 2023, $25,000,000, to remain available until expended;

(B) for fiscal year 2024, $25,000,000, to remain available until expended;

(C) for fiscal year 2025, $50,000,000, to remain available until expended;

(D) for fiscal year 2026, $50,000,000, to remain available until expended; and

(E) for fiscal year 2027, $50,000,000, to remain available until expended.

(3) ALLOCATION AUTHORITY.—

(A) SUBMISSION OF COST ESTIMATES.—The President shall submit to Congress detailed account, program, and project allocations of the full amount made available under paragraph (2)—

(i) for fiscal year 2023, not later than 60 days after the date of enactment of this Act; and

(ii) for each subsequent fiscal year through 2027, as part of the annual budget submission of the President under section 1105(a) of title 31, United States Code.

(B) ALTERNATE ALLOCATION.—

(i) IN GENERAL.—The Committees on Appropriations of the House of Representatives and the Senate may provide for alternate allocation of amounts made available under paragraph (2), including by account, program, and project.

(ii) ALLOCATION BY PRESIDENT.—

(I) NO ALTERNATE ALLOCATIONS.—If Congress has not enacted legislation establishing alternate allocations, including by account, program, and project, by the date on which the Act making full-year appropriations for the Departments of Commerce and Justice, Science, and Related Agencies for the applicable fiscal year is enacted into law, only then shall amounts made available under subsection (d)(2) be allocated by the President or apportioned or allotted by account, program, and project pursuant to title 31, United States Code.

(II) INSUFFICIENT ALTERNATE ALLOCATION.—If Congress enacts legislation establishing alternate allocations, including by account, program, and project, for amounts made available under subsection (d)(2) that are less than the full amount appropriated under that subsection, the difference between the amount appropriated and the alternate allocation shall be allocated by the President and apportioned and allotted by account, program, and project pursuant to title 31, United States Code.

(e) SEQUESTRATION.—Section 255(g)(1)(A) of the Balanced Budget and Emergency Deficit Control Act of 1985 (2 U.S.C. 905(g)(1)(A)) is amended by inserting after ''Continuing Fund, Southwestern Power Administration (89–5649–0–2–271).'' the following:

''Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America Fund.

''Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America Defense Fund.

''Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America International Technology Security and Innovation Fund.

''Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America Workforce and Education Fund''.

(f) BUDGETARY EFFECTS.—

(1) STATUTORY PAYGO SCORECARDS.—The budgetary effects of this section shall not be entered on either PAYGO scorecard maintained pursuant to section 4(d) of the Statutory Pay-As-You-Go Act of 2010 (2 U.S.C. 933(d)).

(2) SENATE PAYGO SCORECARDS.—The budgetary effects of this section shall not be entered on any PAYGO scorecard maintained for purposes of section 4106 of H. Con. Res. 71 (115th Congress).

(3) CLASSIFICATION OF BUDGETARY EFFECTS.—Notwithstanding Rule 3 of the Budget Scorekeeping Guidelines set forth in the joint explanatory statement of the committee of conference accompanying Conference Report 105–217 and section 250(c)(8) of the Balanced Budget and Emergency Deficit Control Act of 1985, the budgetary effects of this section shall not be estimated—

(A) for purposes of section 251 of such Act;

(B) for purposes of an allocation to the Committee on Appropriations pursuant to section 302(a) of the Congressional Budget Act of 1974; and

(C) for purposes of paragraph (4)(C) of section 3 of the Statutory Pay-As-You-Go Act of 2010 as being included in an appropriation Act.

(g) LIMITATION ON USING AMOUNTS FOR STOCK BUYBACKS OR THE PAYMENT OF DIVIDENDS.—

(1) IN GENERAL.—A person receiving amounts appropriated under this section or from a covered fund may not use such amounts, as determined using the criteria for eligible uses of amounts under sections 9902(a)(4) and 9905(a)(4) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4652(a)(4), 15 U.S.C. 4655(a)(4)), the activities under section 9903(b) of such Act (15 U.S.C. 4653(b)), and the functions under 9906(c)(2) of such Act (15 U.S.C. 4656(c)(2)) —

(A) to purchase an equity security that is listed on a national securities exchange of such person or any parent company of such person; or

(B) to pay dividends or make other capital distributions with respect to the common stock (or equivalent interest) of the person.

(2) COVERED FUND.—In this subsection, the term ''covered fund'' means—

(A) the Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America Fund;

(B) the Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America Defense Fund;

(C) the Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America International Technology Security and Innovation Fund; and

(D) the Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America Workforce and Education Fund.

SEC. 103. SEMICONDUCTOR INCENTIVES.

(a) DEFINITIONS.—Section 9901 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4651) is amended—

(1) in paragraph (2)—

(A) by striking ''a private entity, a consortium of private entities, or a consortium of public and private entities'' and inserting ''a nonprofit entity, a private entity, a consortium of private entities, or a consortium of nonprofit, public, and private entities'';

(B) by inserting ''production,'' before ''or research and development''; and

(C) by striking ''of semiconductors.'' and inserting ''of semiconductors, materials used to manufacture semiconductors, or semiconductor manufacturing equipment.'';

(2) by redesignating paragraphs (5), (6), (7), (8), and (9) as paragraphs (6), (8), (9), (12), and (13), respectively;

(3) by inserting after paragraph (4), the following:

''(5) The term 'critical manufacturing industry'—

''(A) means an industry, industry group, or a set of related industries or related industry groups—

''(i) assigned a North American Industry Classification System code beginning with 31, 32, or 33; and

''(ii) for which the applicable industry group or groups in the North American Industry Classification System code cumulatively—

''(I) manufacture primary products and parts, the sum of which account for not less than 5 percent of the manufacturing value added by industry gross domestic product of the United States; and

''(II) employ individuals for primary products and parts manufacturing activities that, combined, account for not less than 5 percent of manufacturing employment in the United States; and

''(B) may include any other manufacturing industry designated by the Secretary based on the relevance of the manufacturing industry to the national and economic security of the United States, including the impacts of job losses.''; and

(4) by inserting after paragraph (6), as so redesignated, the following:

''(7) The term 'foreign country of concern' means—

''(A) a country that is a covered nation (as defined in section 4872(d) of title 10 United States Code); and

''(B) any country that the Secretary, in consultation with the Secretary of Defense, the Secretary of State, and the Director of National Intelligence, determines to be engaged in conduct that is detrimental to the national security or foreign policy of the United States.''; and

(5) by inserting after paragraph (9), as so redesignated, the following:

''(10) The term 'mature technology node' has the meaning given the term by the Secretary.

''(11) The term 'nonprofit entity' means an entity described in section 501(c)(3) of the Internal Revenue Code of 1986 and exempt from taxation under section 501(a) of such Code.''.

(b) SEMICONDUCTOR PROGRAM.—Section 9902 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4652) is amended—

(1) in subsection (a)(1)—

(A) by striking ''for semiconductor fabrication'' and inserting ''for the fabrication'';

(B) by inserting ''production,'' before ''or research and development''; and

(C) by striking the period at the end and inserting ''of semiconductors, materials used to manufacture semiconductors, or semiconductor manufacturing equipment.''; and

(2) in subsection (a)(2)—

(A) in subparagraph (B)(i), by striking ''; and'' at the end;

(B) in subparagraph (B)(ii)—

(i) in subclause (III), by striking ''and'' at the end;

(ii) in subclause (IV), by striking the period at the end and inserting a semicolon; and

(iii) by adding at the end the following:

''(V) determined—

''(aa) the type of semiconductor technology, equipment, materials, or research and development the covered entity will produce at the facility described in clause (i); and

''(bb) the customers, or categories of customers, to which the covered entity plans to sell the semiconductor technology, equipment, materials, or research and development described in item (aa); and

''(VI) documented, to the extent practicable, workforce needs and developed a strategy to meet such workforce needs consistent with the commitments described in subclauses (II) and (III);''; and

(C) by inserting after subparagraph (B)(ii) the following—

''(iii) with respect to the project described in clause (i), the covered entity has an executable plan to identify and mitigate relevant semiconductor supply chain security risks, such as risks associated with access, availability, confidentiality, integrity, and a lack of geographic diversification in the covered entity's supply chain; and

''(iv) with respect to any project for the production, assembly, or packaging of semiconductors, the covered entity has implemented policies and procedures to combat cloning, counterfeiting, and relabeling of semiconductors, as applicable.'';

(D) in subparagraph (C)—

(i) in clause (i)—

(I) in subclause (II), by striking ''is in the interest of the United States'' and inserting ''is in the economic and national security interests of the United States''; and

(II) in subclause (III), by striking ''and'' at the end;

(ii) in clause (ii)(IV), by striking ''and'' at the end;

(iii) by redesignating clause (iii) as clause (v); and

(iv) by inserting after clause (ii) the following:

''(iii) the Secretary shall consider the type of semiconductor technology produced by the covered entity and whether that semiconductor technology advances the economic and national security interests of the United States;

''(iv) the Secretary may not approve an application, unless the covered entity provides a plan that does not use Federal financial assistance to assist efforts to physically relocate existing facility infrastructure to another jurisdiction within the United States, unless the project is in the interest of the United States; and'';

(E) by redesignating subparagraph (D) as subparagraph (E); and

(F) by inserting after subparagraph (C) the following:

''(D) PRIORITY.—In awarding Federal financial assistance to covered entities under this subsection, the Secretary shall—

''(i) give priority to ensuring that a covered entity receiving financial assistance will—

''(I) manufacture semiconductors necessary to address gaps and vulnerabilities in the domestic supply chain across a diverse range of technology and process nodes; and

''(II) provide a secure supply of semiconductors necessary for the national security, manufacturing, critical infrastructure, and technology leadership of the United States and other essential elements of the economy of the United States; and

''(ii) ensure that the assistance is awarded to covered entities for both advanced and mature technology nodes to meet the priorities described in clause (i).'';

(3) in subsection (a)(4)(A), by striking ''used for semiconductors'' and inserting ''used for the purposes'';

(4) in subsection (a)(5)—

(A) in subparagraph (A), by striking ''major'';

(B) in subparagraph (D), by striking ''major''; and

(C) in subparagraph (E)(i), by striking ''major'';

(5) by inserting after subsection (a)(5) the following:

''(6) EXPANSION CLAWBACK.—

''(A) DEFINITION OF LEGACY SEMICONDUCTOR.—

''(i) IN GENERAL.—In this paragraph, the term 'legacy semiconductor'—

''(I) includes—

''(aa) a semiconductor technology that is of the 28 nanometer generation or older for logic;

''(bb) with respect to memory technology, analog technology, packaging technology, and any other relevant technology, any legacy generation of semiconductor technology relative to the generation described in item (aa), as determined by the Secretary, in consultation with the Secretary of Defense and the Director of National Intelligence; and

''(cc) any additional semiconductor technology identified by the Secretary in a public notice issued under clause (ii); and

''(II) does not include a semiconductor that is critical to national security, as determined by the Secretary, in consultation with the Secretary of Defense and the Director of National Intelligence.

''(ii) UPDATES.—Not later than 2 years after the date of enactment of the CHIPS Act of 2022, and not less frequently than once every 2 years thereafter for the 8-year period after the last award under this section is made, the Secretary, after public notice and an opportunity for comment and if applicable and necessary, shall issue a public notice identifying any additional semiconductor technology included in the meaning of the term 'legacy semiconductor' under clause (i).

''(iii) FUNCTIONS OF THE SECRETARY.—The functions of the Secretary under this paragraph shall not be subject to sections 551, 553 through 559, and 701 through 706 of title 5, United States Code.

''(iv) CONSULTATION.—In carrying out clause (ii), the Secretary shall consult with the Director of National Intelligence and the Secretary of Defense.

''(v) CONSIDERATIONS.—In carrying out clause (ii), the Secretary shall consider—

''(I) state-of-the-art semiconductor technologies in the United States and internationally, including in foreign countries of concern; and

''(II) consistency with export controls relating to semiconductors.

''(B) DEFINITION OF SEMICONDUCTOR MANUFACTURING.—In this paragraph, the term 'semiconductor manufacturing'—

''(i) has the meaning given the term by the Secretary, in consultation with the Secretary of Defense and the Director of National Intelligence; and

''(ii) includes front-end semiconductor fabrication.

''(C) REQUIRED AGREEMENT.—

''(i) IN GENERAL.—On or before the date on which the Secretary awards Federal financial assistance to a covered entity under this section, the covered entity shall enter into an agreement with the Secretary specifying that, during the 10-year period beginning on the date of the award, subject to clause (ii), the covered entity may not engage in any significant transaction, as defined in the agreement, involving the material expansion of semiconductor manufacturing capacity in the People's Republic of China or any other foreign country of concern.

''(ii) EXCEPTIONS.—The prohibition in the agreement required under clause (i) shall not apply to—

''(I) existing facilities or equipment of a covered entity for manufacturing legacy semiconductors; or

''(II) significant transactions involving the material expansion of semiconductor manufacturing capacity that—

''(aa) produces legacy semiconductors; and

''(bb) predominately serves the market of a foreign country of concern.

''(iii) AFFILIATED GROUP.—For the purpose of applying the requirements in an agreement required under clause (i), a covered entity shall include the covered entity receiving financial assistance under this section, as well as any member of the covered entity's affiliated group under section 1504(a) of the Internal Revenue Code of 1986, without regard to section 1504(b)(3) of such Code.

''(D) NOTIFICATION REQUIREMENTS.—During the applicable term of the agreement of a covered entity required under subparagraph (C)(i), the covered entity shall notify the Secretary of any planned significant transactions of the covered entity involving the material expansion of semiconductor manufacturing capacity in the People's Republic of China or any other foreign country of concern.

''(E) VIOLATION OF AGREEMENT.—

''(i) NOTIFICATION TO COVERED ENTITIES.—Not later than 90 days after the date of receipt of a notification described in subparagraph (D) from a covered entity, the Secretary, in consultation with the Secretary of Defense and the Director of National Intelligence, shall—

''(I) determine whether the significant transaction described in the notification would be a violation of the agreement of the covered entity required under subparagraph (C)(i); and

''(II) notify the covered entity of the Secretary's decision under subclause (I).

''(ii) OPPORTUNITY TO REMEDY.—Upon a notification under clause (i)(II) that a planned significant transaction of a covered entity is a violation of the agreement of the covered entity required under subparagraph (C)(i), the Secretary shall—

''(I) immediately request from the covered entity tangible proof that the planned significant transaction has ceased or been abandoned; and

''(II) provide the covered entity 45 days to produce and provide to the Secretary the tangible proof described in subclause (I).

''(iii) FAILURE BY THE COVERED ENTITY TO CEASE OR REMEDY THE ACTIVITY.—Subject to clause (iv), if a covered entity fails to remedy a violation as set forth under clause (ii), the Secretary shall recover the full amount of the Federal financial assistance provided to the covered entity under this section.

''(iv) MITIGATION.—If the Secretary, in consultation with the Secretary of Defense and the Director of National Intelligence, determines that a covered entity planning a significant transaction that would violate the agreement required under subparagraph (C)(i) could take measures in connection with the transaction to mitigate any risk to national security, the Secretary—

''(I) may negotiate, enter into, and enforce any agreement or condition for the mitigation; and,

''(II) waive the recovery requirement under clause (iii).

''(F) SUBMISSION OF RECORDS.—

''(i) IN GENERAL.—The Secretary may request from a covered entity records and other necessary information to review the compliance of the covered entity with the agreement required under subparagraph (C)(i).

''(ii) ELIGIBILITY.—In order to be eligible for Federal financial assistance under this section, a covered entity shall agree to provide records and other necessary information requested by the Secretary under clause (i).

''(G) CONFIDENTIALITY OF RECORDS.—

''(i) IN GENERAL.—Subject to clause (ii), any information derived from records or necessary information disclosed by a covered entity to the Secretary under this section—

''(I) shall be exempt from disclosure under section 552(b)(3) of title 5, United States Code; and

''(II) shall not be made public.

''(ii) EXCEPTIONS.—Clause (i) shall not prevent the disclosure of any of the following by the Secretary:

''(I) Information relevant to any administrative or judicial action or proceeding.

''(II) Information that a covered entity has consented to be disclosed to third parties.

''(III) Information necessary to fulfill the requirement of the congressional notification under subparagraph (H).

''(H) CONGRESSIONAL NOTIFICATION.—Not later than 60 days after the date on which the Secretary finds a violation by a covered entity of an agreement required under subparagraph (C)(i), and after providing the covered entity with an opportunity to provide information in response to that finding, the Secretary shall provide to the appropriate Committees of Congress—

''(i) a notification of the violation;

''(ii) a brief description of how the Secretary determined the covered entity to be in violation; and

''(iii) a summary of any actions or planned actions by the Secretary in response to the violation.

''(I) REGULATIONS.—The Secretary may issue regulations implementing this paragraph.''; and

(6) by adding at the end the following:

''(d) SENSE OF CONGRESS.—It is the sense of Congress that, in carrying out subsection (a), the Secretary should allocate funds in a manner that—

''(1) strengthens the security and resilience of the semiconductor supply chain, including by mitigating gaps and vulnerabilities;

''(2) provides a supply of secure semiconductors relevant for national security;

''(3) strengthens the leadership of the United States in semiconductor technology;

''(4) grows the economy of the United States and supports job creation in the United States;

''(5) bolsters the semiconductor and skilled technical workforces in the United States;

''(6) promotes the inclusion of economically disadvantaged individuals and small businesses; and

''(7) improves the resiliency of the semiconductor supply chains of critical manufacturing industries.

''(e) ADDITIONAL ASSISTANCE FOR MATURE TECHNOLOGY NODES.—

''(1) IN GENERAL.—The Secretary shall establish within the program established under subsection (a) an additional program that provides Federal financial assistance to covered entities to incentivize investment in facilities and equipment in the United States for the fabrication, assembly, testing, or packaging of semiconductors at mature technology nodes.

''(2) ELIGIBILITY AND REQUIREMENTS.—In order for an entity to qualify to receive Federal financial assistance under this subsection, the covered entity shall agree to—

''(A) submit an application under subsection (a)(2)(A);

''(B) meet the eligibility requirements under subsection (a)(2)(B);

''(C)(i) provide equipment or materials for the fabrication, assembly, testing, or packaging of semiconductors at mature technology nodes in the United States; or

''(ii) fabricate, assemble using packaging, or test semiconductors at mature technology nodes in the United States;

''(D) commit to using any Federal financial assistance received under this section to increase the production of semiconductors at mature technology nodes; and

''(E) be subject to the considerations described in subsection (a)(2)(C).

''(3) PROCEDURES.—In granting Federal financial assistance to covered entities under this subsection, the Secretary may use the procedures established under subsection (a).

''(4) CONSIDERATIONS.—In addition to the considerations described in subsection (a)(2)(C), in granting Federal financial assistance under this subsection, the Secretary may consider whether a covered entity produces or supplies equipment or materials used in the fabrication, assembly, testing, or packaging of semiconductors at mature technology nodes that are necessary to support a critical manufacturing industry.

''(5) PRIORITY.—In awarding Federal financial assistance to covered entities under this subsection, the Secretary shall give priority to covered entities that support the resiliency of semiconductor supply chains for critical manufacturing industries in the United States.

''(6) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out this subsection $2,000,000,000, which shall remain available until expended.

''(f) CONSTRUCTION PROJECTS.—Section 602 of the Public Works and Economic Development Act of 1965 (42 U.S.C. 3212) shall apply to a construction project that receives financial assistance from the Secretary under this section.

''(g) LOANS AND LOAN GUARANTEES.—

''(1) IN GENERAL.—Subject to the requirements of subsection (a) and this subsection, the Secretary may make or guarantee loans to covered entities as financial assistance under this section.

''(2) CONDITIONS.—The Secretary may select eligible projects to receive loans or loan guarantees under this subsection if the Secretary determines that—

''(A) the covered entity—

''(i) has a reasonable prospect of repaying the principal and interest on the loan; and

''(ii) has met such other criteria as may be established and published by the Secretary; and

''(B) the amount of the loan (when combined with amounts available to the loan recipient from other sources) will be sufficient to carry out the project.

''(3) REASONABLE PROSPECT OF REPAYMENT.—The Secretary shall base a determination of whether there is a reasonable prospect of repayment of the principal and interest on a loan under paragraph (2)(A)(i) on a comprehensive evaluation of whether the covered entity has a reasonable prospect of repaying the principal and interest, including, as applicable, an evaluation of—

''(A) the strength of the contractual terms of the project the covered entity plans to perform (if commercially reasonably available);

''(B) the forecast of noncontractual cash flows supported by market projections from reputable sources, as determined by the Secretary;

''(C) cash sweeps and other structure enhancements;

''(D) the projected financial strength of the covered entity—

''(i) at the time of loan close; and

''(ii) throughout the loan term after the project is completed;

''(E) the financial strength of the investors and strategic partners of the covered entity, if applicable;

''(F) other financial metrics and analyses that the private lending community and nationally recognized credit rating agencies rely on, as determined appropriate by the Secretary; and

''(G) such other criteria the Secretary may determine relevant.

''(4) RATES, TERMS, AND REPAYMENTS OF LOANS.—A loan provided under this subsection—

''(A) shall have an interest rate that does not exceed a level that the Secretary determines appropriate, taking into account, as of the date on which the loan is made, the cost of funds to the Department of the Treasury for obligations of comparable maturity; and

''(B) shall have a term of not more than 25 years.

''(5) ADDITIONAL TERMS.—A loan or guarantee provided under this subsection may include any other terms and conditions that the Secretary determines to be appropriate.

''(6) RESPONSIBLE LENDER.—No loan may be guaranteed under this subsection, unless the Secretary determines that—

''(A) the lender is responsible; and

''(B) adequate provision is made for servicing the loan on reasonable terms and protecting the financial interest of the United States.

''(7) ADVANCED BUDGET AUTHORITY.—New loans may not be obligated and new loan guarantees may not be committed to under this subsection, unless appropriations of budget authority to cover the costs of such loans and loan guarantees are made in advance in accordance with section 504(b) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661c(b)).

''(8) CONTINUED OVERSIGHT.—The loan agreement for a loan guaranteed under this subsection shall provide that no provision of the loan agreement may be amended of waived without the consent of the Secretary.

''(h) OVERSIGHT.—Not later than 4 years after disbursement of the first financial award under subsection (a), the Inspector General of the Department of Commerce shall audit the program under this section to assess—

''(1) whether the eligibility requirements for covered entities receiving financial assistance under the program are met;

''(2) whether eligible entities use the financial assistance received under the program in accordance with the requirements of this section;

''(3) whether the covered entities receiving financial assistance under this program have carried out the commitments made to worker and community investment under subsection (a)(2)(B)(ii)(II) by the target date for completion set by the Secretary under subsection (a)(5)(A);

''(4) whether the required agreement entered into by covered entities and the Secretary under subsection (a)(6)(C)(i), including the notification process, has been carried out to provide covered entities sufficient guidance about a violation of the required agreement;

''(5) whether the Secretary has provided timely Congressional notification about violations of the required agreement under subsection (a)(6)(C)(i), including the required information on how the Secretary reached a determination of whether a covered entity was in violation under subsection (a)(6)(E); and

''(6) whether the Secretary has sufficiently reviewed any covered entity engaging in a listed exception under subsection (a)(6)(C)(ii).

''(i) PROHIBITION ON USE OF FUNDS.—No funds made available under this section may be used to construct, modify, or improve a facility outside of the United States.''.

(c) ADVANCED MICROELECTRONICS RESEARCH AND DEVELOPMENT.—Section 9906 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4656) is amended—

(1) in subsection (a)(3)(A)(ii)—

(A) in subclause (II), by inserting '', including for technologies based on organic and inorganic materials'' after ''components''; and

(B) in subclause (V), by striking ''and supply chain integrity'' and inserting ''supply chain integrity, and workforce development'';

(2) in subsection (c)—

(A) in paragraph (1)—

(i) by inserting ''and grow the domestic semiconductor workforce'' after ''prototyping of advanced semiconductor technology''; and

(ii) by adding at the end the following: ''The Secretary may make financial assistance awards, including construction awards, in support of the national semiconductor technology center.''; and

(B) in paragraph (2)—

(i) in subparagraph (B), by inserting ''and capitalize'' before ''an investment fund''; and

(ii) by striking subparagraph (C) and inserting the following:

''(C) To work with the Secretary of Labor, the Director of the National Science Foundation, the Secretary of Energy, the private sector, institutions of higher education, and workforce training entities to incentivize and expand geographically diverse participation in graduate, undergraduate, and community college programs relevant to microelectronics, including through—

''(i) the development and dissemination of curricula and research training experiences; and

''(ii) the development of workforce training programs and apprenticeships in advanced microelectronic design, research, fabrication, and packaging capabilities.'';

(3) in subsection (d)—

(A) by striking ''the Manufacturing USA institute'' and inserting ''a Manufacturing USA institute''; and

(B) by adding at the end the following: ''The Director may make financial assistance awards, including construction awards, in support of the National Advanced Packaging Manufacturing Program.'';

(4) in subsection (f)—

(A) in the matter preceding paragraph (1)—

(i) by striking ''a Manufacturing USA Institute'' and inserting ''not more than 3 Manufacturing USA Institutes'';

(ii) by striking ''is focused on semiconductor manufacturing.'' and inserting ''are focused on semiconductor manufacturing. The Secretary of Commerce may award financial assistance to any Manufacturing USA Institute for work relating to semiconductor manufacturing.''; and

(iii) by striking ''Such institute may emphasize'' and inserting ''Such institutes may emphasize''; and

(5) by adding at the end the following:

''(h) CONSTRUCTION PROJECTS.—Section 602 of the Public Works and Economic Development Act of 1965 (42 U.S.C. 3212) shall apply to a construction project that receives financial assistance under this section.''.

(d) ADDITIONAL AUTHORITIES.—Division H of title XCIX of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4651 et seq.) is amended by adding at the end the following:

''SEC. 9909. ADDITIONAL AUTHORITIES.

''(a) IN GENERAL.—In carrying out the responsibilities of the Department of Commerce under this division, the Secretary may—

''(1) enter into agreements, including contracts, grants and cooperative agreements, and other transactions as may be necessary and on such terms as the Secretary considers appropriate;

''(2) make advance payments under agreements and other transactions authorized under paragraph (1) without regard to section 3324 of title 31, United States Code;

''(3) require a person or other entity to make payments to the Department of Commerce upon application and as a condition for receiving support through an award of assistance or other transaction;

''(4) procure temporary and intermittent services of experts and consultants in accordance with section 3109 of title 5, United States Code;

''(5) notwithstanding section 3104 of title 5, United States Code, or the provisions of any other law relating to the appointment, number, classification, or compensation of employees, make appointments of scientific, engineering, and professional personnel, and fix the basic pay of such personnel at a rate to be determined by the Secretary at rates not in excess of the highest total annual compensation payable at the rate determined under section 104 of title 3, United States Code, except that the Secretary shall appoint not more than 25 personnel under this paragraph;

''(6) with the consent of another Federal agency, enter into an agreement with that Federal agency to use, with or without reimbursement, any service, equipment, personnel, or facility of that Federal agency; and

''(7) establish such rules, regulations, and procedures as the Secretary considers appropriate.

''(b) REQUIREMENT.—Any funds received from a payment made by a person or entity pursuant to subsection (a)(3) shall be credited to and merged with the account from which support to the person or entity was made''.

(e) CONFORMING AMENDMENT.—The table of contents for division H of title XCIX of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (Public Law 116–283) is amended by adding after the item relating to section 9908 the following:

''9909. Additional authorities.''.

SEC. 104. OPPORTUNITY AND INCLUSION.

(a) ESTABLISHMENT.—Not later than 180 days after the date of enactment of this Act, the Secretary of Commerce shall establish activities in the Department of Commerce, within the program established under section 9902 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4652), to carry out this section using funds appropriated under this Act.

(b) IN GENERAL.—The Secretary of Commerce shall assign personnel to lead and support the activities carried out under this section, including coordination with other workforce development activities of the Department of Commerce or of Federal agencies, as defined in section 551 of title 5, United States Code, as appropriate.

(c) ACTIVITIES.—Personnel assigned by the Secretary to carry out the activities under this section shall—

(1) assess the eligibility of a covered entity, as defined in section 9901 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4651), for financial assistance for a project with respect to the requirements under subclauses (II) and (III) of section 9902(a)(2)(B)(ii) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4652(a)(2)(B)(ii)(II) and (III));

(2) ensure that each covered entity, as defined in section 9901 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4651),that is awarded financial assistance under section 9902 of that Act (15 U.S.C. 4652) is carrying out the commitments of the covered entity to economically disadvantaged individuals as described in the application of the covered entity under that section by the target dates for completion established by the Secretary of Commerce under subsection(a)(5)(A) of that section; and

(3) increase participation of and outreach to economically disadvantaged individuals, minority-owned businesses, veteran-owned businesses, and women-owned businesses, as defined by the Secretary of Commerce, respectively, in the geographic area of a project under section 9902 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4652) and serve as a resource for those individuals, businesses, and covered entities.

(d) STAFF.—The activities under this section shall be staffed at the appropriate levels to carry out the functions and responsibilities under this section until 95 percent of the amounts of funds made available for the program established under section 9902 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4652) have been expended.

(e) REPORT.—Beginning on the date that is 1 year after the date on which the Secretary of Commerce establishes the activities described in subsection (c), the Secretary of Commerce shall submit to the appropriate committees of Congress, as defined in section 9901(1) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4651), and make publicly available on the website of the Department of Commerce an annual report regarding the actions taken by the Department of Commerce under this section.

SEC. 105. ADDITIONAL GAO REPORTING REQUIREMENTS.

(a) NDAA.—Section 9902(c) of William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4652(c)) is amended—

(1) in paragraph (1)—

(A) in subparagraph (B)—

(i) in clause (i), by striking ''; and'' and inserting a semicolon; and

(ii) by adding at the end the following:

''(iii) the Federal Government could take specific actions to address shortages in the semiconductor supply chain, including—

''(I) demand-side incentives, including incentives related to the information and communications technology supply chain; and

''(II) additional incentives, at national and global scales, to accelerate utilization of leading-edge semiconductor nodes to address shortages in mature semiconductor nodes; and''; and

(B) in subparagraph (C)—

(i) in clause (iii), by striking ''; and'' and inserting a semicolon; and

(ii) by inserting after clause (iv) the following:

''(v) how projects are supporting the semiconductor needs of critical infrastructure industries in the United States, including those industries designated by the Cybersecurity and Infrastructure Security Agency as essential infrastructure industries; and''; and

(2) by inserting after paragraph (1)(C)(iv) the following:

''(D) drawing on data made available by the Department of Labor or other sources, to the extent practicable, an analysis of—

''(i) semiconductor industry data regarding businesses that are—

''(I) majority owned and controlled by minority individuals;

''(II) majority owned and controlled by women; or

''(III) majority owned and controlled by both women and minority individuals;

''(ii) the number and amount of contracts and subcontracts awarded by each covered entity using funds made available under subsection (a) disaggregated by recipients of each such contract or subcontracts that are majority owned and controlled by minority individuals and majority owned and controlled by women; and

''(iii) aggregated workforce data, including data by race or ethnicity, sex, and job categories.''.

(b) DEPARTMENT OF DEFENSE.—Section 9202(a)(1)(G)(ii)(I) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (47 U.S.C. 906(a)(1)(G)(ii)(I)) is amended by inserting ''(including whether recipients are majority owned and controlled by minority individuals and majority owned and controlled by women)'' after ''to whom''.

SEC. 106. APPROPRIATIONS FOR WIRELESS SUPPLY CHAIN INNOVATION.

(a) DIRECT APPROPRIATIONS.—In addition to amounts otherwise available for such purposes, there is appropriated to the Public Wireless Supply Chain Innovation Fund established under section 9202(a)(1) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4652(a)(1)), out of amounts in the Treasury not otherwise appropriated—

(1) $150,000,000 for fiscal year 2022, to remain available until September 30, 2031; and

(2) $1,350,000,000 for fiscal year 2023, to remain available until September 30, 2032.

(b) USE OF FUNDS, ADMINISTRATION, AND OVERSIGHT.—Of the amounts made available under subsection (a)—

(1) not more than 5 percent of the amounts allocated pursuant to subsection (c) in a given fiscal year may be used by the Assistant Secretary of Commerce for Communications and Information to administer the programs funded from the Public Wireless Supply Chain Innovation Fund; and

(2) not less than $2,000,000 per fiscal year shall be transferred to the Office of Inspector General of the Department of Commerce for oversight related to activities conducted using amounts provided under this section.

(c) ALLOCATION AUTHORITY.—

(1) SUBMISSION OF COST ESTIMATES.—The President shall submit to Congress detailed account, program, and project allocations of the amount recommended for allocation in a fiscal year from amounts made available under subsection (a)—

(A) for fiscal years 2022 and 2023, not later than 60 days after the date of enactment of this Act; and

(B) for each subsequent fiscal year through 2032, as part of the annual budget submission of the President under section 1105(a) of title 31, United States Code.

(2) ALTERNATE ALLOCATION.—

(A) IN GENERAL.—The Committees on Appropriations of the House of Representatives and the Senate may provide for alternate allocation of amounts recommended for allocation in a given fiscal year from amounts made available under subsection (a), including by account, program, and project.

(B) ALLOCATION BY PRESIDENT.—

(i) NO ALTERNATE ALLOCATIONS.—If Congress has not enacted legislation establishing alternate allocations, including by account, program, and project, by the date on which the Act making full-year appropriations for the Departments of Commerce and Justice, Science, and Related Agencies for the applicable fiscal year is enacted into law, only then shall amounts recommended for allocation for that fiscal year from amounts made available under subsection (a) be allocated by the President or apportioned or allotted by account, program, and project pursuant to title 31, United States Code.

(ii) INSUFFICIENT ALTERNATE ALLOCATION.—If Congress enacts legislation establishing alternate allocations, including by account, program, and project, for amounts recommended for allocation in a given fiscal year from amounts made available under subsection (a) that are less than the full amount recommended for allocation for that fiscal year, the difference between the amount recommended for allocation and the alternate allocation shall be allocated by the President and apportioned and allotted by account, program, and project pursuant to title 31, United States Code.

(d) SEQUESTRATION.—Section 255(g)(1)(A) of the Balanced Budget and Emergency Deficit Control Act of 1985 (2 U.S.C. 905(g)(1)(A)) is amended by inserting after ''Postal Service Fund (18–4020–0–3–372).'' the following:

''Public Wireless Supply Chain Innovation Fund.''.

(e) BUDGETARY EFFECTS.—

(1) STATUTORY PAYGO SCORECARDS.—The budgetary effects of this section shall not be entered on either PAYGO scorecard maintained pursuant to section 4(d) of the Statutory Pay-As-You-Go Act of 2010.

(2) SENATE PAYGO SCORECARDS.—The budgetary effects of this section shall not be entered on any PAYGO scorecard maintained for purposes of section 4106 of H. Con. Res. 71 (115th Congress).

(3) CLASSIFICATION OF BUDGETARY EFFECTS.—Notwithstanding Rule 3 of the Budget Scorekeeping Guidelines set forth in the joint explanatory statement of the committee of conference accompanying Conference Report 105–217 and section 250(c)(8) of the Balanced Budget and Emergency Deficit Control Act of 1985, the budgetary effects of this section shall not be estimated—

(A) for purposes of section 251 of such Act;

(B) for purposes of an allocation to the Committee on Appropriations pursuant to section 302(a) of the Congressional Budget Act of 1974; and

(C) for purposes of paragraph (4)(C) of section 3 of the Statutory Pay-As-You-Go Act of 2010 as being included in an appropriation Act.

SEC. 107. ADVANCED MANUFACTURING INVESTMENT CREDIT.

(a) IN GENERAL.—Subpart E of part IV of subchapter A of chapter 1 of the Internal Revenue Code of 1986 is amended by inserting after section 48C the following new section:

''SEC. 48D. ADVANCED MANUFACTURING INVESTMENT CREDIT.

''(a) ESTABLISHMENT OF CREDIT.—For purposes of section 46, the advanced manufacturing investment credit for any taxable year is an amount equal to 25 percent of the qualified investment for such taxable year with respect to any advanced manufacturing facility of an eligible taxpayer.

''(b) QUALIFIED INVESTMENT.—

''(1) IN GENERAL.—For purposes of subsection (a), the qualified investment with respect to any advanced manufacturing facility for any taxable year is the basis of any qualified property placed in service by the taxpayer during such taxable year which is part of an advanced manufacturing facility.

''(2) QUALIFIED PROPERTY.—

''(A) IN GENERAL.—For purposes of this subsection, the term 'qualified property' means property—

''(i) which is tangible property,

''(ii) with respect to which depreciation (or amortization in lieu of depreciation) is allowable,

''(iii) which is—

''(I) constructed, reconstructed, or erected by the taxpayer, or

''(II) acquired by the taxpayer if the original use of such property commences with the taxpayer, and

''(iv) which is integral to the operation of the advanced manufacturing facility.

''(B) BUILDINGS AND STRUCTURAL COMPONENTS.—

''(i) IN GENERAL.—The term 'qualified property' includes any building or its structural components which otherwise satisfy the requirements under subparagraph (A).

''(ii) EXCEPTION.—Clause (i) shall not apply with respect to a building or portion of a building used for offices, administrative services, or other functions unrelated to manufacturing.

''(3) ADVANCED MANUFACTURING FACILITY.—For purposes of this section, the term 'advanced manufacturing facility' means a facility for which the primary purpose is the manufacturing of semiconductors or semiconductor manufacturing equipment.

''(4) COORDINATION WITH REHABILITATION CREDIT.—The qualified investment with respect to any advanced manufacturing facility for any taxable year shall not include that portion of the basis of any property which is attributable to qualified rehabilitation expenditures (as defined in section 47(c)(2)).

''(5) CERTAIN PROGRESS EXPENDITURE RULES MADE APPLICABLE.—Rules similar to the rules of subsections (c)(4) and (d) of section 46 (as in effect on the day before the date of the enactment of the Revenue Reconciliation Act of 1990) shall apply for purposes of subsection (a).

''(c) ELIGIBLE TAXPAYER.—For purposes of this section, the term 'eligible taxpayer' means any taxpayer which—

''(1) is not a foreign entity of concern (as defined in section 9901(6) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021), and

''(2) has not made an applicable transaction (as defined in section 50(a)) during the taxable year.

''(d) ELECTIVE PAYMENT.—

''(1) IN GENERAL.—Except as otherwise provided in paragraph (2)(A), in the case of a taxpayer making an election (at such time and in such manner as the Secretary may provide) under this subsection with respect to the credit determined under subsection (a) with respect to such taxpayer, such taxpayer shall be treated as making a payment against the tax imposed by subtitle A (for the taxable year with respect to

which such credit was determined) equal to the amount of such credit.

''(2) SPECIAL RULES.—For purposes of this subsection—

''(A) APPLICATION TO PARTNERSHIPS AND S CORPORATIONS.—

''(i) IN GENERAL.—In the case of the credit determined under subsection (a) with respect to any property held directly by a partnership or S corporation, any election under paragraph (1) shall be made by such partnership or S corporation. If such partnership or S corporation makes an election under such paragraph (in such manner as the Secretary may provide) with respect to such credit—

''(I) the Secretary shall make a payment to such partnership or S corporation equal to the amount of such credit,

''(II) paragraph (3) shall be applied with respect to such credit before determining any partner's distributive share, or shareholder's pro rata share, of such credit,

''(III) any amount with respect to which the election in paragraph (1) is made shall be treated as tax exempt income for purposes of sections 705 and 1366, and

''(IV) a partner's distributive share of such tax exempt income shall be based on such partner's distributive share of the otherwise applicable credit for each taxable year.

''(ii) COORDINATION WITH APPLICATION AT PARTNER OR SHAREHOLDER LEVEL.—In the case of any property held directly by a partnership or S corporation, no election by any partner or shareholder shall be allowed under paragraph (1) with respect to any credit determined under subsection (a) with respect to such property.

''(B) ELECTIONS.—Any election under paragraph (1) shall be made not later than the due date (including extensions of time) for the return of tax for the taxable year for which the election is made, but in no event earlier than 270 days after the date of the enactment of this section. Any such election, once made, shall be irrevocable. Except as otherwise provided in this subparagraph, any election under paragraph (1) shall apply with respect to any credit for the taxable year for which the election is made.

''(C) TIMING.—The payment described in paragraph (1) shall be treated as made on the later of the due date (determined without regard to extensions) of the return of tax for the taxable year or the date on which such return is filed.

''(D) TREATMENT OF PAYMENTS TO PARTNERSHIPS AND S CORPORATIONS.—For purposes of section 1324 of title 31, United States Code, the payments under subparagraph (A)(i)(I) shall be treated in the same manner as a refund due from a credit provision referred to in subsection (b)(2) of such section.

''(E) ADDITIONAL INFORMATION.—As a condition of, and prior to, any amount being treated as a payment which is made by the taxpayer under paragraph (1) or any payment being made pursuant to subparagraph (A), the Secretary may require such information or registration as the Secretary deems necessary or appropriate for purposes of preventing duplication, fraud, improper payments, or excessive payments under this section.

''(F) EXCESSIVE PAYMENT.—

''(i) IN GENERAL.—In the case of any amount treated as a payment which is made by the taxpayer under paragraph (1), or any payment made pursuant to subparagraph (A), which the Secretary determines constitutes an excessive payment, the tax imposed on such taxpayer by chapter 1 for the taxable year in which such determination is made shall be increased by an amount equal to the sum of—

''(I) the amount of such excessive payment, plus

''(II) an amount equal to 20 percent of such excessive payment.

''(ii) REASONABLE CAUSE.—Clause (i)(II) shall not apply if the taxpayer demonstrates to the satisfaction of the Secretary that the excessive payment resulted from reasonable cause.

''(iii) EXCESSIVE PAYMENT DEFINED.—For purposes of this subparagraph, the term 'excessive payment' means, with respect to property for which an election is made under this subsection for any taxable year, an amount equal to the excess of—

''(I) the amount treated as a payment which is made by the taxpayer under paragraph (1), or the amount of the payment made pursuant to subparagraph (A), with respect to such property for such taxable year, over

''(II) the amount of the credit which, without application of this subsection, would be otherwise allowable (determined without regard to section 38(c)) under subsection (a) with respect to such property for such taxable year.

''(3) DENIAL OF DOUBLE BENEFIT.—In the case of a taxpayer making an election under this subsection with respect to the credit determined under subsection (a), such credit shall be reduced to zero and shall, for any other purposes under this title, be deemed to have been allowed to the taxpayer for such taxable year.

''(4) MIRROR CODE POSSESSIONS.—In the case of any possession of the United States with a mirror code tax system (as defined in section 24(k)), this subsection shall not be treated as part of the income tax laws of the United States for purposes of determining the income tax law of such possession unless such possession elects to have this subsection be so treated.

''(5) BASIS REDUCTION AND RECAPTURE.—Rules similar to the rules of subsections (a) and (c) of section 50 shall apply with respect to—

''(A) any amount treated as a payment which is made by the taxpayer under paragraph (1), and

''(B) any payment made pursuant to paragraph (2)(A).

''(6) REGULATIONS.—The Secretary shall issue such regulations or other guidance as may be necessary or appropriate to carry out the purposes of this subsection, including—

''(A) regulations or other guidance providing rules for determining a partner's distributive share of the tax exempt income described in paragraph (2)(A)(i)(III), and

''(B) guidance to ensure that the amount of the payment or deemed payment made under this subsection is commensurate with the amount of the credit that would be otherwise allowable (determined without regard to section 38(c)).

''(e) TERMINATION OF CREDIT.—The credit allowed under this section shall not apply to property the construction of which begins after December 31, 2026.''.

(b) RECAPTURE IN CONNECTION WITH CERTAIN EXPANSIONS.—

(1) IN GENERAL.—Section 50(a) of the Internal Revenue Code of 1986 is amended redesignating paragraphs (3) through (5) as paragraphs (4) through (6), respectively, and by inserting after paragraph (2) the following new paragraph:

''(3) CERTAIN EXPANSIONS IN CONNECTION WITH ADVANCED MANUFACTURING FACILITIES.—

''(A) IN GENERAL.—If there is a an applicable transaction by an applicable taxpayer before the close of the 10-year period beginning on the date such taxpayer placed in service investment credit property which is eligible for the advanced manufacturing investment credit under section 48D(a), then the tax under this chapter for the taxable year in which such transaction occurs shall be increased by 100 percent of the aggregate decrease in the credits allowed under section 38 for all prior taxable years which would have resulted solely from reducing to zero any credit determined under section 46 which is attributable to the advanced manufacturing investment credit under section 48D(a) with respect to such property.

''(B) EXCEPTION.—Subparagraph (A) shall not apply if the applicable taxpayer demonstrates to the satisfaction of the Secretary that the applicable transaction has been ceased or abandoned within 45 days of a determination and notice by the Secretary.

''(C) REGULATIONS AND GUIDANCE.—The Secretary shall issue such regulations or other guidance as the Secretary determines necessary or appropriate to carry out the purposes of this paragraph, including regulations or other guidance which provide for requirements for recordkeeping or information reporting for purposes of administering the requirements of this paragraph.''.

(2) APPLICABLE TRANSACTION; APPLICABLE TAXPAYER.—Section 50(a)(6) of the Internal Revenue Code of 1986, as redesignated by paragraph (1), is amended adding at the end the following new subparagraphs:

''(D) APPLICABLE TRANSACTION.—For purposes of this subsection—

''(i) IN GENERAL.—The term 'applicable transaction' means, with respect to any applicable taxpayer, any significant transaction (as determined by the Secretary, in coordination with the Secretary of Commerce and the Secretary of Defense) involving the material expansion of semiconductor manufacturing capacity of such applicable taxpayer in the People's Republic of China or a foreign country of concern (as defined in section 9901(7) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021).

''(ii) EXCEPTION.—Such term shall not include a transaction which primarily involves the expansion of manufacturing capacity for legacy semiconductors (as defined in section 9902(a)(6) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021).

''(E) APPLICABLE TAXPAYER.—For purposes of this subsection, the term 'applicable taxpayer' means any taxpayer who has been allowed a credit under section 48D(a) for any prior taxable year.''.

(3) CONFORMING AMENDMENTS.—

(A) Section 50(a)(4) of the Internal Revenue Code of 1986, as redesignated by paragraph (1), is amended—

(i) by inserting '', or any applicable transaction to which paragraph (3)(A) applies'' after ''paragraphs (1) and (2)'', and

(ii) by inserting ''or applicable transaction'' after ''such cessation''.

(B) Section 50(a)(6)(C) of such Code, as redesignated by paragraph (1), is amended by striking ''paragraph (1) or (2)'' and inserting ''paragraph (1), (2), or (3)''.

(C) Section 1371(d)(1) of such Code is amended by striking ''section 50(a)(4)'' and inserting ''section 50(a)(5)''.

(c) EXEMPTION OF ELECTIVE PAYMENTS FROM SEQUESTRATION.—Subsection (d) of section 255 of the Balanced Budget and Emergency Deficit Control Act of 1985 (2 U.S.C. 905) is amended to read as follows:

''(d) REFUNDABLE INCOME TAX CREDITS AND CERTAIN ELECTIVE PAYMENTS.—

''(1) REFUNDABLE INCOME TAX CREDITS.—Payments to individuals made pursuant to provisions of the Internal Revenue Code of 1986 establishing refundable tax credits shall be exempt from reduction under any order issued under this part.

''(2) CERTAIN ELECTIVE PAYMENTS.—Payments made to taxpayers pursuant to elections under subsection (d) of section 48D of the Internal Revenue Code of 1986, or amounts treated as payments which are made by taxpayers under paragraph (1) of such subsection, shall be exempt from reduction under any order issued under this part.''.

(d) CONFORMING AMENDMENTS.—

(1) Paragraph (6) of section 46 of the Internal Revenue Code of 1986 is amended to read as follows:

''(6) the advanced manufacturing investment credit.''.

(2) Section 49(a)(1)(C) of such Code is amended—

(A) by striking ''and'' at the end of clause (iv),

(B) by striking the period at the end of clause (v) and inserting '', and'', and

(C) by adding at the end the following new clause:

''(vi) the basis of any qualified property (as defined in subsection (b)(2) of section 48D) which is part of an advanced manufacturing facility (as defined in subsection (b)(3) of such section).''.

(3) Section 50(a)(2)(E) of such Code is amended by striking ''or 48C(b)(2)'' and inserting ''48C(b)(2), or 48D(b)(5)''.

(4) The table of sections for subpart E of part IV of subchapter A of chapter 1 of such Code is amended by inserting after the item relating to section 48C the following new item:

''Sec. 48D. Advanced manufacturing investment credit.''.

(e) BUDGETARY EFFECTS.—

(1) STATUTORY PAYGO SCORECARDS.—The budgetary effects of this section shall not be entered on either PAYGO scorecard maintained pursuant to section 4(d) of the Statutory Pay-As-You-Go Act of 2010 (2 U.S.C. 933(d)).

(2) SENATE PAYGO SCORECARDS.—The budgetary effects of this section shall not be entered on any PAYGO scorecard maintained for purposes of section 4106 of H. Con. Res. 71 (115th Congress).

(3) CLASSIFICATION OF BUDGETARY EFFECTS.—Notwithstanding Rule 3 of the Budget Scorekeeping Guidelines set forth in the joint explanatory statement of the committee of conference accompanying Conference Report 105–217 and section 250(c)(8) of the Balanced Budget and Emergency Deficit Control Act of 1985, the budgetary effects of this section shall not be estimated—

(A) for purposes of section 251 of such Act;

(B) for purposes of an allocation to the Committee on Appropriations pursuant to section 302(a) of the Congressional Budget Act of 1974; and

(C) for purposes of paragraph (4)(C) of section 3 of the Statutory Pay-As-You-Go Act of 2010 as being included in an appropriation Act.

(f) EFFECTIVE DATE.—

(1) IN GENERAL.—Except as provided in paragraph (2), the amendments made by this section shall apply to property placed in service after December 31, 2022, and, for any property the construction of which begins prior to January 1, 2023, only to the extent of the basis thereof attributable to the construction, reconstruction, or erection after the date of enactment of this Act.

(2) EXEMPTION OF ELECTIVE PAYMENTS FROM SEQUESTRATION.—The amendment made by subsection (c) shall apply to any sequestration order issued under the Balanced Budget and Emergency Deficit Control Act of 1985 (2 U.S.C. 900 et seq.) on or after December 31, 2022.

DIVISION B—RESEARCH AND INNOVATION

SEC. 10000. TABLE OF CONTENTS.

The table of contents for this division is as follows:

DIVISION B—RESEARCH AND INNOVATION

Sec. 10000. Table of contents.
Sec. 10001. Short title.
Sec. 10002. Definitions.
Sec. 10003. Budgetary effects.

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Sec. 10102. Basic energy sciences program.
Sec. 10103. Biological and environmental research.
Sec. 10104. Advanced scientific computing research program.
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Sec. 10111. Increased collaboration with teachers and scientists.
Sec. 10112. High intensity laser research initiative; helium conservation program; Office of Science emerging biological threat preparedness research initiative; midscale instrumentation and research equipment program; authorization of appropriations.
Sec. 10113. Established program to stimulate competitive research.
Sec. 10114. Research security.

TITLE II—NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY FOR THE FUTURE

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Sec. 10221. Engineering biology and biometrology.
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Sec. 10243. Report to Congress on collaborations with government agencies.
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Sec. 10245. International standards development.
Sec. 10246. Standard technical update.
Sec. 10247. GAO study of NIST research security policies and protocols.
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Subtitle D—Hollings Manufacturing Extension Partnership

Sec. 10251. Establishment of expansion awards pilot program as a part of the Hollings Manufacturing Extension Partnership.
Sec. 10252. Update to Hollings Manufacturing Extension Partnership.
Sec. 10253. National Supply Chain Database.
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Sec. 10255. Amendment to the Hollings Manufacturing Extension Partnership relating to institutions of higher education.

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Sec. 10261. Supporting geographic diversity.
Sec. 10262. Expanding opportunities through the Manufacturing USA Program.
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TITLE III—NATIONAL SCIENCE FOUNDATION FOR THE FUTURE

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Sec. 10302. Definitions.
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Sec. 10316. Federal cyber scholarship-for-service program.
Sec. 10317. Cybersecurity workforce data initiative.
Sec. 10318. Microelectronics workforce development activities.
Sec. 10319. Incorporation of art and design into certain STEM education.
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SEC. 10001. SHORT TITLE.

This division may be cited as the ''Research and Development, Competition, and Innovation Act''.

SEC. 10002. DEFINITIONS.

In this division:

(1) ARTIFICIAL INTELLIGENCE.—The term ''artificial intelligence'' or ''AI'' has the meaning given such term in section 5002 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 9401).

(2) AWARDEE.—The term ''awardee'' means the legal entity to which Federal assistance is awarded and that is accountable to the Federal Government for the use of the funds provided.

(3) AWARD PERSONNEL.—The term ''award personnel'' means principal investigators and coprincipal investigators, faculty, postdoctoral researchers, and other employees supported by a grant, cooperative agreement, or contract under Federal law.

(4) BIOMANUFACTURING.—The term ''biomanufacturing'' means the utilization of biological systems to develop new and advance existing products, tools, and processes at commercial scale.

(5) EMERGING RESEARCH INSTITUTION.—The term ''emerging research institution'' means an institution of higher education with an established undergraduate or graduate program that has less than $50,000,000 in Federal research expenditures.

(6) ENGINEERING BIOLOGY.—The term ''engineering biology'' means the application of engineering design principles and practices to biological systems, including molecular and cellular systems, to advance fundamental understanding of complex natural systems and to enable novel or optimize functions and capabilities.

(7) EPSCoR.—The term ''EPSCoR'' has the meaning given the term in section 502 of the America COMPETES Reauthorization Act of 2010 (42 U.S.C. 1862p note).

(8) EPSCoR INSTITUTION.—The term ''EPSCoR institution'' means an institution of higher education, nonprofit organization, or other institution located in a jurisdiction eligible to participate in the program under section 113 of the National Science Foundation Authorization Act of 1988 (42 U.S.C. 1862g).

(9) FEDERAL LABORATORY.—The term ''Federal laboratory'' has the meaning given such term in section 4 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3703).

(10) FEDERAL RESEARCH AGENCY.—The term ''Federal research agency'' means any Federal agency with an annual extramural research expenditure of over $100,000,000 in fiscal year 2022 constant dollars.

(11) FOUNDATION.—The term ''Foundation'' means the National Science Foundation.

(12) HISTORICALLY BLACK COLLEGE AND UNIVERSITY.—The term ''historically Black college and university'' has the meaning given the term ''part B institution'' in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061).

(13) INSTITUTION OF HIGHER EDUCATION.—The term ''institution of higher education'' has the meaning given the term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

(14) INTERAGENCY WORKING GROUP ON INCLUSION IN STEM.—The term ''interagency working group on inclusion in STEM'' means the interagency working group established by section 308 of the American Innovation and Competitiveness Act (42 U.S.C. 6626).

(15) LABOR ORGANIZATION.—The term ''labor organization'' has the meaning given the term in section 2(5) of the National Labor Relations Act (29 U.S.C. 152(5)), except that such term shall also include—

(A) any organization composed of labor organizations, such as a labor union federation or a State or municipal labor body; and

(B) any organization which would be included in the definition for such term under such section 2(5) but for the fact that the organization represents—

(i) individuals employed by the United States, any wholly owned Government corporation, any Federal Reserve Bank, or any State or political subdivision thereof;

(ii) individuals employed by persons subject to the Railway Labor Act (45 U.S.C. 151 et seq.); or

(iii) individuals employed as agricultural laborers.

(16) LOW-INCOME INDIVIDUAL.—The term ''low-income individual'' means an individual from a family whose taxable income for the preceding year did not exceed 150 percent of an amount equal to the poverty level determined by using criteria of poverty established by the Bureau of the Census.

(17) MANUFACTURING EXTENSION CENTER.—The term ''manufacturing extension center'' has the meaning given the term ''Center'' in section 25(a) of the National Institute of Standards and Technology Act (15 U.S.C. 278k(a)).

(18) MANUFACTURING USA INSTITUTE.—The term ''Manufacturing USA institute'' means a Manufacturing USA institute described in section 34(d) of the National Institute of Standards and Technology Act (15 U.S.C. 278s(d)).

(19) MINORITY-SERVING INSTITUTION.—The term ''minority-serving institution'' means a Hispanic-serving institution as defined in section 502(a) of the Higher Education Act of 1965 (20 U.S.C. 1101a(a)); an Alaska Native-serving institution or Native Hawaiian-serving institution as defined in section 317(b) of such Act (20 U.S.C. 1059d(b)); or a Predominantly Black institution, Asian American and Native American Pacific Islander-serving institution, or Native American-serving nontribal institution as defined in section 371(c) of such Act (20 U.S.C. 1067q(c)).

(20) NATIONAL ACADEMIES.—The term ''National Academies'' means the National Academies of Sciences, Engineering, and Medicine.

(21) NON-PROFIT ORGANIZATION.—The term ''non-profit organization'' means an organization which is described in section 501(c)(3) of the Internal Revenue Code of 1986 and exempt from tax under section 501(a) of such code.

(22) PREK–12.—The term ''PreK–12'' means pre-kindergarten through grade 12.

(23) QUANTUM INFORMATION SCIENCE.—The term ''quantum information science'' has the meaning given such term in section 2 of the National Quantum Initiative Act (15 U.S.C. 8801).

(24) RECIPIENT.—The term ''recipient'' means an entity, usually a non-Federal entity, that receives a Federal award directly from a Federal research agency. The term ''recipient'' does not include entities that receive subawards or individuals that are the beneficiaries of the award.

(25) RESEARCH AND DEVELOPMENT AWARD.—The term ''research and development award'' means support provided to an individual or entity by a Federal research agency to carry out research and development activities, which may include support in the form of a grant, contract, cooperative agreement, or other such transaction. The term does not include a grant, contract, agreement or other transaction for the procurement of goods or services to meet the administrative needs of a Federal research agency.

(26) SKILLED TECHNICAL WORK.—The term ''skilled technical work'' means an occupation that requires a high level of knowledge in a technical domain and does not require a bachelor's degree for entry.

(27) STEM.—The term ''STEM'' means science, technology, engineering, and mathematics, including computer science.

(28) STEM EDUCATION.—The term ''STEM education'' has the meaning given the term in section 2 of the STEM Education Act of 2015 (42 U.S.C. 6621 note).

(29) TECHNICAL STANDARD.—The term ''technical standard'' has the meaning given such term in section 12(d)(5) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note).

(30) TRIBAL COLLEGE OR UNIVERSITY.—The term ''Tribal College or University'' has the meaning given such term in section 316 of the Higher Education Act of 1965 (20 U.S.C. 1059c).

SEC. 10003. BUDGETARY EFFECTS.

(a) STATUTORY PAYGO SCORECARDS.—The budgetary effects of this division shall not be entered on either PAYGO scorecard maintained pursuant to section 4(d) of the Statutory Pay-As-You-Go Act of 2010 (2 U.S.C. 933(d)).

(b) SENATE PAYGO SCORECARDS.—The budgetary effects of this division shall not be entered on any PAYGO scorecard maintained for purposes of section 4106 of H. Con. Res. 71 (115th Congress).

(c) CLASSIFICATION OF BUDGETARY EFFECTS.—Notwithstanding Rule 3 of the Budget Scorekeeping Guidelines set forth in the joint explanatory statement of the committee of conference accompanying Conference Report 105–217 and section 250(c)(8) of the Balanced Budget and Emergency Deficit Control Act of 1985, the budgetary effects of this division shall not be estimated—

(1) for purposes of section 251 of such Act;

(2) for purposes of an allocation to the Committee on Appropriations pursuant to section 302(a) of the Congressional Budget Act of 1974; and

(3) for purposes of paragraph (4)(C) of section 3 of the Statutory Pay-As-You-Go Act of 2010 as being included in an appropriation Act.

TITLE I—DEPARTMENT OF ENERGY SCIENCE FOR THE FUTURE

SEC. 10101. MISSION OF THE OFFICE OF SCIENCE.

Section 209 of the Department of Energy Organization Act (42 U.S.C. 7139) is amended by adding at the end the following:

''(d) USER FACILITIES.—The Director shall carry out the construction, operation, and maintenance of user facilities to support the mission described in subsection (c). As practicable, these facilities shall serve the needs of the Department, industry, the academic community, and other relevant entities for the purposes of advancing the missions of the Department, improving the competitiveness of the United States, protecting public health and safety, and addressing other national priorities including emergencies.

''(e) COORDINATION.—

''(1) IN GENERAL.—The Secretary—

''(A) shall ensure the coordination of the Office of Science with the other activities of the Department, including the transfer of knowledge, capabilities, and relevant technologies

from basic research programs of the Department to applied research and development programs of the Department for the purpose of enabling development of mission-relevant technologies;

''(B) shall support joint activities among the programs of the Department;

''(C) shall coordinate with other relevant Federal agencies operating under existing authorizations relating to subjects relating to the mission described in subsection (c) in supporting advancements in related research areas as appropriate; and

''(D) may form partnerships to enhance the utilization of and ensure access to user facilities by other Federal agencies.

''(2) OFFICE OF SCIENCE.—The Director—

''(A) shall ensure the coordination of programs and activities carried out by the Office of Science; and

''(B) shall direct all programs which have not recently completed a future planning roadmap consistent with the funding of such programs authorized under the Research and Development, Competition, and Innovation Act to complete such a roadmap.''.

SEC. 10102. BASIC ENERGY SCIENCES PROGRAM.

(a) DEPARTMENT OF ENERGY RESEARCH AND INNOVATION ACT.—Section 303 of the Department of Energy Research and Innovation Act (42 U.S.C. 18641) is amended—

(1) by redesignating subsections (a) through (e) as subsections (c) through (g), respectively;

(2) by inserting before subsection (c), as so redesignated, the following:

''(a) PROGRAM.—As part of the activities authorized under section 209 of the Department of Energy Organization Act (42 U.S.C. 7139), the Director shall carry out a research and development program in basic energy sciences, including materials sciences and engineering, chemical sciences, physical biosciences, geosciences, and other disciplines, to understand, model, and control matter and energy at the electronic, atomic, and molecular levels in order to provide the foundations for new energy technologies, address scientific grand challenges, and support the energy, environment, and national security missions of the Department.

''(b) SUSTAINABLE CHEMISTRY.—In carrying out chemistry-related research and development activities under this section, the Director shall prioritize research and development of sustainable chemistry to support clean, safe, and economic alternatives and methodologies to traditional chemical products and processes.'';

(3) in subsection (d), as so redesignated—

(A) in paragraph (3)—

(i) in subparagraph (C), by striking ''and'' at the end;

(ii) by redesignating subparagraph (D) as subparagraph (E); and

(iii) by inserting after subparagraph (C) the following:

''(D) autonomous chemistry and materials synthesis and characterization facilities that leverage advances in artificial intelligence; and''; and

(B) by adding at the end the following:

''(4) ADVANCED PHOTON SOURCE UPGRADE.—

''(A) DEFINITIONS.—In this paragraph:

''(i) FLUX.—The term 'flux' means the rate of flow of photons.

''(ii) HARD X-RAY.—The term 'hard x-ray' means a photon with energy greater than 20 kiloelectron volts.

''(B) UPGRADE.—The Secretary shall provide for the upgrade to the Advanced Photon Source described in the publication approved by the Basic Energy Sciences Advisory Committee on June 9, 2016, entitled 'Report on Facility Upgrades', including the development of a multibend achromat lattice to produce a high flux of coherent x-rays within the hard x-ray energy region and a suite of beamlines optimized for this source.

''(C) START OF OPERATIONS.—The Secretary shall, subject to the availability of appropriations, ensure that the start of full operations of the upgrade under this paragraph occurs before March 31, 2026.

''(D) FUNDING.—Out of funds authorized to be appropriated under subsection (j), there is authorized to be appropriated to the Secretary to carry out the upgrade under this paragraph $14,200,000 for fiscal year 2023.

''(5) SPALLATION NEUTRON SOURCE PROTON POWER UPGRADE.—

''(A) IN GENERAL.—The Secretary shall provide for the proton power upgrade to the Spallation Neutron Source.

''(B) PROTON POWER UPGRADE DEFINED.—In this paragraph, the term 'proton power upgrade' means the Spallation Neutron Source power upgrade described in—

''(i) the publication entitled 'Facilities for the Future of Science: A Twenty-Year Outlook', published by the Office of Science of the Department in December, 2003;

''(ii) the publication entitled 'Four Years Later: An Interim Report on Facilities for the Future of Science: A Twenty-Year Outlook', published by the Office of Science of the Department in August, 2007; and

''(iii) the publication approved by the Basic Energy Sciences Advisory Committee on June 9, 2016, entitled 'Report on Facility Upgrades'.

''(C) START OF OPERATIONS.—The Secretary shall, subject to the availability of appropriations, ensure that the start of full operations of the upgrade under this paragraph occurs before July 30, 2028, with the option for early operation in 2025.

''(D) FUNDING.—Out of funds authorized to be appropriated under subsection (j), there is authorized to be appropriated to the Secretary to carry out the upgrade under this paragraph—

''(i) $17,000,000 for fiscal year 2023;

''(ii) $14,202,000 for fiscal year 2024; and

''(iii) $1,567,000 for fiscal year 2025.

''(6) SPALLATION NEUTRON SOURCE SECOND TARGET STATION.—

''(A) IN GENERAL.—The Secretary shall provide for a second target station for the Spallation Neutron Source.

''(B) SECOND TARGET STATION DEFINED.—In this paragraph, the term 'second target station' means the Spallation Neutron Source second target station described in—

''(i) the publication entitled, 'Facilities for the Future of Science: A Twenty-Year Outlook', published by the Office of Science of the Department in December, 2003;

''(ii) the publication entitled, 'Four Years Later: An Interim Report on Facilities for the Future of Science: A Twenty-Year Outlook', published by the Office of Science of the Department in August, 2007; and

''(iii) the publication approved by the Basic Energy Sciences Advisory Committee on June 9, 2016, entitled 'Report on Facility Upgrades'.

''(C) START OF OPERATIONS.—The Secretary shall, subject to the availability of appropriations, ensure that the start of full operations of the second target station under this paragraph occurs before December 31, 2033, with the option for early operation in 2029.

''(D) FUNDING.—Out of funds authorized to be appropriated under subsection (j), there are authorized to be appropriated to the Secretary to carry out the activities under this paragraph, including construction—

''(i) $127,000,000 for fiscal year 2023;

''(ii) $205,000,000 for fiscal year 2024;

''(iii) $279,000,000 for fiscal year 2025;

''(iv) $300,000,000 for fiscal year 2026; and

''(v) $281,000,000 for fiscal year 2027.

''(7) ADVANCED LIGHT SOURCE UPGRADE.—

''(A) DEFINITIONS.—In this paragraph:

''(i) FLUX.—The term 'flux' means the rate of flow of photons.

''(ii) SOFT X-RAY.—The term 'soft x-ray' means a photon with energy in the range from 50 to 2,000 electron volts.

''(B) UPGRADE.—The Secretary shall provide for the upgrade to the Advanced Light Source described in the publication approved by the Basic Energy Sciences Advisory Committee on June 9, 2016, entitled 'Report on Facility Upgrades', including the development of a multibend achromat lattice to produce a high flux of coherent x-rays within the soft x-ray energy region.

''(C) START OF OPERATIONS.—The Secretary shall, subject to the availability of appropriations, ensure that the start of full operations of the upgrade under this paragraph occurs before September 30, 2029.

''(D) FUNDING.—Out of funds authorized to be appropriated under subsection (j), there are authorized to be appropriated to the Secretary to carry out the upgrade under this paragraph—

''(i) $135,000,000 for fiscal year 2023;

''(ii) $102,500,000 for fiscal year 2024;

''(iii) $50,000,000 for fiscal year 2025; and

''(iv) $1,400,000 for fiscal year 2026.

''(8) LINAC COHERENT LIGHT SOURCE II HIGH ENERGY UPGRADE.—

''(A) DEFINITIONS.—In this paragraph:

''(i) HIGH ENERGY.—The term 'high energy', with respect to an x-ray, means a photon with an energy in the 5 to 13 kiloelectron volt range.

''(ii) HIGH REPETITION RATE.—The term 'high repetition rate' means the delivery of x-ray pulses up to 1,000,000 pulses per second.

''(iii) ULTRA-SHORT PULSE.—The term 'ultra-short pulse', with respect to an x-ray, means that the x-ray has bursts capable of durations of less than 100 femtoseconds.

''(B) UPGRADE.—The Secretary shall—

''(i) provide for the upgrade to the Linac Coherent Light Source II facility described in the publication approved by the Basic Energy Sciences Advisory Committee on June 9, 2016, entitled 'Report on Facility Upgrades', including the development of experimental capabilities for high energy x-rays to reveal fundamental scientific discoveries; and

''(ii) ensure such upgrade enables the production and use of high energy, ultra-short pulse x-rays delivered at a high repetition rate.

''(C) START OF OPERATIONS.—The Secretary shall, subject to the availability of appropriations, ensure that the start of full operations of the upgrade under this paragraph occurs before December 31, 2026.

''(D) FUNDING.—Out of funds authorized to be appropriated under subsection (j), there are authorized to be appropriated to the Secretary to carry out the upgrade under this paragraph—

''(i) $100,000,000 for fiscal year 2023;

''(ii) $130,000,000 for fiscal year 2024;

''(iii) $135,000,000 for fiscal year 2025; and

''(iv) $99,343,000 for fiscal year 2026.

''(9) CRYOMODULE REPAIR AND MAINTENANCE FACILITY.—

''(A) IN GENERAL.—The Secretary shall provide for the construction of a cryomodule repair and maintenance facility to service the Linac Coherent Light Source II and subsequent upgrades.

''(B) CONSULTATION REQUIRED.—The Secretary shall consult with the private sector, institutions of higher education, National Laboratories, and relevant Federal agencies to ensure that the facility described in subparagraph (A) has the capability to maintain, repair, and test superconducting radio frequency accelerator components.

''(C) FUNDING.—Out of funds authorized to be appropriated under subsection (j), there are authorized to be appropriated to the Secretary to carry out the activities under this paragraph—

''(i) $29,300,000 for fiscal year 2023;

''(ii) $24,000,000 for fiscal year 2024;

''(iii) $20,000,000 for fiscal year 2025; and

''(iv) $15,700,000 for fiscal year 2026.

''(10) NANOSCALE SCIENCE RESEARCH CENTER RECAPITALIZATION PROJECT.—

''(A) IN GENERAL.—The Secretary shall provide for the recapitalization of the Nanoscale Science Research Centers, to include the upgrade of equipment at each Center supported by the Office of Science on the date of enactment of

the Research and Development, Competition, and Innovation Act, to accelerate advances in the various fields of science including nanoscience, materials, chemistry, biology, and quantum information science.

''(B) FUNDING.—Out of funds authorized to be appropriated under subsection (j), there are authorized to be appropriated to the Secretary to carry out the recapitalization under this paragraph—

''(i) $25,000,000 for fiscal year 2023; and

''(ii) $25,000,000 for fiscal year 2024.

''(11) NATIONAL SYNCHROTRON LIGHT SOURCE II BEAMLINE BUILDOUT.—

''(A) IN GENERAL.—The Secretary shall provide for the development and construction of experimental stations to provide significant additional beamline and instrument capacity, complement the existing portfolio of beamlines, and complete the buildout of the National Synchrotron Light Source II.

''(B) START OF OPERATIONS.—Subject to the availability of appropriations, the Secretary—

''(i) shall begin carrying out subparagraph (A) not later than September 30, 2036; and

''(ii) may begin carrying out subparagraph (A)—

''(I) in calendar year 2033; or

''(II) after the construction of individual beamlines is complete.''; and

(4) by adding at the end the following:

''(h) COMPUTATIONAL MATERIALS AND CHEMICAL SCIENCES.—

''(1) IN GENERAL.—The Director shall support a program of research and development for the application of advanced computing practices to foundational and emerging research problems in chemistry and materials science. Research activities shall include—

''(A) chemical catalysis research and development;

''(B) the use of large data sets to model materials phenomena, including through advanced characterization of materials, materials synthesis, processing, and innovative use of experimental and theoretical data;

''(C) codesign of chemical system and chemistry modeling software with advanced computing systems and hardware technologies; and

''(D) modeling of chemical processes, assemblies, and reactions such as molecular dynamics and quantum chemistry, including through novel computing methods.

''(2) COMPUTATIONAL MATERIALS AND CHEMICAL SCIENCES CENTERS.—

''(A) IN GENERAL.—In carrying out the activities authorized under paragraph (1), the Director shall select and establish up to 6 computational materials and chemical sciences centers to—

''(i) develop open-source, robust, and validated computational codes and user-friendly software, coupled with innovative use of experimental and theoretical data, to enable the design, discovery, and development of new materials and chemical systems; and

''(ii) focus on overcoming challenges and maximizing the benefits of exascale and other high performance computing underpinned by accelerated node technologies.

''(B) SELECTION.—The Director shall select centers under subparagraph (A) on a competitive, merit-reviewed basis. The Director shall consider applications from the National Laboratories, institutions of higher education, multi-institutional collaborations, and other appropriate entities.

''(C) DURATION.—

''(i) NEW CENTERS.—A center selected under subparagraph (A) shall receive support for a period of not more than 5 years beginning on the date of establishment of that center, subject to the availability of appropriations.

''(ii) EXISTING CENTERS.—A center already in existence on the date of enactment of the Research and Development, Competition, and Innovation Act may continue to receive support for a period of not more than 5 years beginning on the date of establishment of that center.

''(D) RENEWAL.—Upon the expiration of any period of support of a center under this subsection, the Director may renew support for the center, on a merit-reviewed basis, for a period of not more than 5 years.

''(i) MATERIALS RESEARCH DATABASE.—

''(1) IN GENERAL.—The Director shall support the development of a web-based platform to develop and provide access to a database of computed information on known and predicted materials properties and computational tools to accelerate breakthroughs in materials discovery and design.

''(2) PROGRAM.—In carrying out this subsection, the Director shall—

''(A) conduct cooperative research among National Laboratories, industry, academia, and other research institutions to advance understanding, prediction, and manipulation of materials and facilitate the design of novel materials;

''(B) develop and maintain data infrastructure at user facilities that generate data to collect, analyze, label, and otherwise prepare the data for inclusion in the database;

''(C) leverage existing high performance computing systems to conduct high throughput calculations, and develop computational and data mining algorithms for the prediction of material properties;

''(D) strengthen the foundation for new technologies and advanced manufacturing; and

''(E) drive the development of advanced materials for applications that span the Department's missions in energy, environment, and national security.

''(3) COORDINATION.—In carrying out this subsection, the Director shall leverage programs and activities across the Department, including computational materials and chemical sciences centers established under subsection (h).

''(4) FUNDING.—Out of funds authorized to be appropriated under subsection (j), there is authorized to be appropriated to the Secretary to carry out activities under this subsection $10,000,000 for each of fiscal years 2023 through 2027.

''(j) AUTHORIZATION OF APPROPRIATIONS.—Out of funds authorized to be appropriated to the Office of Science in a fiscal year, there are authorized to be appropriated to the Secretary to carry out the activities described in this section—

''(1) $2,685,414,000 for fiscal year 2023;

''(2) $2,866,890,840 for fiscal year 2024;

''(3) $2,987,727,170 for fiscal year 2025;

''(4) $3,062,732,781 for fiscal year 2026; and

''(5) $3,080,067,167 for fiscal year 2027.''.

(b) ARTIFICIAL PHOTOSYNTHESIS.—Section 973 of the Energy Policy Act of 2005 (42 U.S.C. 16313) is amended—

(1) in subsection (b), by striking paragraph (4) and inserting the following:

''(4) FUNDS.—Of the funds authorized to be appropriated for basic energy sciences in a fiscal year, there is authorized to be appropriated to the Secretary to carry out activities under this subsection $50,000,000 for each of fiscal years 2023 through 2027.''; and

(2) in subsection (c), by striking paragraph (4) and inserting the following:

''(4) FUNDS.—Of the funds authorized to be appropriated for basic energy sciences in a fiscal year, there is authorized to be appropriated to the Secretary to carry out activities under this subsection $50,000,000 for each of fiscal years 2023 through 2027.''.

(c) ELECTRICITY STORAGE RESEARCH INITIATIVE.—Section 975 of the Energy Policy Act of 2005 (42 U.S.C. 16315) is amended—

(1) in subsection (a)—

(A) in paragraph (1)—

(i) in subparagraph (A)(ii), by striking ''and'' after the semicolon at the end;

(ii) in subparagraph (B), by striking the period at the end and inserting ''; and''; and

(iii) by adding at the end the following:

''(C) to ensure the competitiveness of the United States in energy storage by fostering an ecosystem linking fundamental research and development to deployment of storage solutions while minimizing the environmental impacts of energy storage technologies.''; and

(B) in paragraph (2)—

(i) in subparagraph (A), by striking ''and'' after the semicolon at the end;

(ii) in subparagraph (B), by striking the period at the end and inserting ''; and''; and

(iii) by adding at the end the following:

''(C) any other relevant office of the Department.'';

(2) in subsection (b), by striking paragraph (4) and inserting the following:

''(4) FUNDING.—Of the funds authorized to be appropriated for basic energy sciences in a fiscal year, there is authorized to be appropriated to the Secretary to carry out activities under this subsection $50,000,000 for each of fiscal years 2023 through 2027.'';

(3) in subsection (c), by striking paragraph (4) and inserting the following:

''(4) FUNDING.—Of the funds authorized to be appropriated for basic energy sciences in a fiscal year, there is authorized to be appropriated to the Secretary to carry out activities under this subsection $50,000,000 for each of fiscal years 2023 through 2027.''; and

(4) in subsection (d), by striking paragraph (4) and inserting the following:

''(4) FUNDING.—Of the funds authorized to be appropriated for basic energy sciences in a fiscal year, there is authorized to be appropriated to the Secretary to carry out activities under this subsection $20,000,000 for each of fiscal years 2023 through 2027.''.

(d) FOUNDATIONAL NUCLEAR SCIENCE.—

(1) IN GENERAL.—The Director of the Office of Science shall support a program of research and development to bridge scientific barriers to, and expand theoretical and fundamental knowledge relevant to, understanding nuclear materials and matter for the benefit of commerce, medicine, and national security.

(2) ACTIVITIES.—As part of the program described in paragraph (1)—

(A) the Director of the Office of Science shall support basic research to pursue distinct lines of scientific inquiry, including—

(i) research in nuclear materials science, including the application of advanced computing practices to foundational and emerging research areas in nuclear materials science and discovery, such as—

(I) the advanced characterization of materials;

(II) materials synthesis;

(III) processing;

(IV) the innovative use of experimental and theoretical data; and

(V) mechanical behavior in unique environments, including the effects of radiation;

(ii) electrochemistry research and associated techniques for processing nuclear materials;

(iii) the development of advanced instrumentation and nuclear data collection to inform the activities described in clauses (i) and (ii); and

(iv) any other area of research, as determined by the Director of the Office of Science; and

(B) the Assistant Secretary for Nuclear Energy shall consult with the Director of the Office of Science to support the direction of translational research, development, and validation of physical concepts developed under the program.

(3) FUNDING.—Of the funds authorized to be appropriated for basic energy sciences in a fiscal year, there is authorized to be appropriated to the Secretary of Energy to carry out activities under this subsection $50,000,000 for each of fiscal years 2023 through 2027.

(e) CARBON MATERIALS SCIENCE INITIATIVE.—

(1) INITIATIVE.—

(A) IN GENERAL.—The Director of the Office of Science (referred to in this subsection as the ''Director'') shall establish a research initiative, to be known as the ''Carbon Materials Science Initiative'' (referred to in this subsection as the

''Initiative''), to expand the fundamental knowledge of coal, coal-wastes, and carbon ore chemistry useful for understanding the conversion of carbon to material products.

(B) COORDINATION.—In carrying out programs and activities under the Initiative, the Director shall leverage expertise and resources from the Office of Fossil Energy and Carbon Management and the United States Geological Survey.

(C) TEAMS.—

(i) IN GENERAL.—In carrying out the Initiative, the Director shall establish and organize activities among multidisciplinary teams to leverage, to the maximum extent practicable, expertise from the National Laboratories, institutions of higher education, and the private sector.

(ii) GOALS.—The multidisciplinary teams described in clause (i) shall pursue expedient, milestone-driven research goals established by the Director.

(2) RESEARCH PROGRAM.—

(A) IN GENERAL.—The Director shall carry out under the Initiative a program to support, and discover fundamental knowledge relevant to, carbon materials and carbon ore processing research.

(B) ACTIVITIES.—As part of the program described in subparagraph (A), the Director shall, in coordination with the Assistant Secretary of Energy for Fossil Energy and Carbon Management, as appropriate, support research to pursue distinct lines of scientific inquiry, including—

(i) methods of extraction, processing, recycling, and utilization of the materials and valuable minerals contained in raw coal and coal-waste;

(ii) methods of improving performance, cost, and availability of materials for use in carbon capture systems; and

(iii) unconventional pathways and materials for conversion of carbon dioxide molecules, minerals, and materials.

(C) REVIEW.—The Director shall periodically review activities carried out under the program described in subparagraph (A) to evaluate the achievement of scientific objectives and research milestones.

(D) COORDINATION WITH EXISTING PROGRAMS AND CENTERS.—In carrying out the program described in subparagraph (A), the Director shall—

(i) ensure coordination and knowledge sharing with—

(I) the United States Geological Survey; and

(II) the programs and the Carbon Utilization Research Center established under section 969A of the Energy Policy Act of 2005 (42 U.S.C. 16298a); and

(ii) avoid duplication of efforts to the maximum extent practicable.

(3) CARBON MATERIALS RESEARCH CENTERS.—

(A) IN GENERAL.—In carrying out the activities authorized under paragraph (2), the Director shall establish 1 center in each of the 2 major coal-producing regions of the United States, each of which shall—

(i) be known as a ''Carbon Materials Research Center'' (referred to in this paragraph as a ''Center''); and

(ii) focus on early stage research and development activities, including—

(I) developing and advancing methods of extracting, processing, or recycling carbon or other valuable materials or minerals from raw coal, coal-waste, or other solid carbon materials, for the development of new carbon-based materials;

(II) methods of improving the structural, physical, and chemical properties of carbon-based materials or other valuable materials from raw coal, coal-waste, or other solid carbon materials and their recyclability;

(III) overcoming the challenges and maximizing the benefits of commercially extracting, producing, or improving coal-derived carbon and resulting products; and

(IV) identifying novel pathways and materials for carbon storage and conversion into useful products.

(B) SELECTION.—The Director shall—

(i) select Centers under subparagraph (A) on a competitive, merit-reviewed basis; and

(ii) consider applications from the National Laboratories, institutions of higher education, multi-institutional collaborations, and other appropriate entities.

(C) DURATION.—A Center shall receive support for a period of not more than 5 years beginning on the date of establishment of that Center, subject to the availability of appropriations.

(D) RENEWAL.—On the expiration of any period of support of a Center, the Director may renew support for that Center, on a merit-reviewed basis, for a period of not more than 5 years.

(E) EXISTING FACILITIES.—The Director shall—

(i) ensure that the research activities carried out by the Centers are not duplicative of existing efforts; and

(ii) if practicable, leverage existing user facilities and other capabilities of the Department of Energy to carry out the research objectives of the Centers.

(f) CARBON SEQUESTRATION RESEARCH AND GEOLOGIC COMPUTATIONAL SCIENCE INITIATIVE.—

(1) INITIATIVE.—

(A) IN GENERAL.—The Secretary of Energy (referred to in this subsection as the ''Secretary'') shall establish a research initiative, to be known as the ''Carbon Sequestration Research and Geologic Computational Science Initiative'' (referred to in this subsection as the ''Initiative''), to expand the fundamental knowledge, data collection, data analysis, and modeling of subsurface geology for the purpose of advancing carbon sequestration in geologic formations.

(B) LEVERAGING.—In carrying out programs and activities under the Initiative, the Secretary shall leverage expertise and resources from the Office of Fossil Energy and Carbon Management and the United States Geological Survey.

(C) TEAMS.—

(i) IN GENERAL.—In carrying out the Initiative, the Secretary shall establish and organize activities among multidisciplinary teams to leverage, to the maximum extent practicable, expertise from the National Laboratories, institutions of higher education, and the private sector.

(ii) GOALS.—The multidisciplinary teams described in clause (i) shall pursue aggressive, milestone-driven research goals established by the Secretary.

(D) ADDITIONAL ACTIVITIES.—The Secretary may organize additional activities under this subsection through other organizational structures.

(2) RESEARCH PROGRAM.—

(A) IN GENERAL.—The Secretary shall carry out under the Initiative a program to support research needed for, and discover knowledge relevant to, the sequestration of carbon in geologic formations.

(B) ACTIVITIES.—As part of the program described in subparagraph (A), the Director of the Office of Science shall support fundamental research to pursue distinct lines of scientific inquiry, including—

(i) gathering geologic data for pore space characterization, including improvements to geologic seismic imaging;

(ii) evaluating pore space quality, including evaluation of geologic samples, to determine appropriate sequestration zones for carbon;

(iii) testing carbon sequestration;

(iv) monitoring carbon migration in geologic formations;

(v) advancements in data analytics, including the analysis of seismic data, and computational science to improve the advanced computing, visualization, and imaging of geologic formations for the sequestration of carbon; and

(vi) predictive understanding of coupled processes in complex subsurface geologic systems for secure carbon storage.

(C) REVIEW.—The Secretary shall periodically review activities carried out under the program described in subparagraph (A) to evaluate achievement of scientific objectives and research milestones.

(3) CARBON STORAGE RESEARCH AND GEOLOGIC COMPUTATIONAL SCIENCE CENTERS.—

(A) IN GENERAL.—In carrying out the activities authorized under paragraph (2), the Secretary shall select and establish not more than 2 carbon storage research and geologic computational science centers (referred to in this paragraph as a ''Center'') to develop and advance improvements to data collection, analysis, and modeling of subsurface geology for the purpose of advancing carbon sequestration in geologic formations.

(B) SELECTION.—

(i) IN GENERAL.—The Secretary shall—

(I) select Centers under subparagraph (A) on a competitive, merit-reviewed basis; and

(II) to the maximum extent practicable, locate each Center in a geographically diverse region with established and ongoing geologic carbon sequestration research and demonstration.

(ii) APPLICATIONS.—In selecting Centers under subparagraph (A), the Secretary shall consider applications from institutions of higher education, multi-institutional collaborations, and other appropriate entities.

(C) DURATION.—

(i) NEW CENTERS.—A Center established after the date of enactment of this Act shall receive support for a period of not more than 5 years beginning on the date of establishment of that Center, subject to the availability of appropriations.

(ii) EXISTING CENTERS.—A Center already in existence on the date of enactment of this Act may continue to receive support for a period of not more than 5 years beginning on that date of enactment.

(iii) RENEWAL.—On expiration of a period of support described in clause (i) or (ii), the Secretary may renew support for the Center, on a merit-reviewed basis, for a period of not more than 5 years.

(4) COORDINATION WITH EXISTING PROGRAMS AND CENTERS.—In carrying out this subsection, the Secretary shall—

(A) ensure coordination with—

(i) the United States Geological Survey; and

(ii) the programs established under section 963 of the Energy Policy Act of 2005 (42 U.S.C. 16293); and

(B) avoid duplication of efforts to the maximum extent practicable.

(g) FUNDING FOR CARBON INITIATIVES.—Of the funds authorized to be appropriated for basic energy sciences in a fiscal year, there is authorized to be appropriated to the Secretary to carry out activities under subsections (e) and (f) $50,000,000 for each of fiscal years 2023 through 2027.

SEC. 10103. BIOLOGICAL AND ENVIRONMENTAL RESEARCH.

(a) PROGRAM; BIOLOGICAL SYSTEMS; BIOMOLECULAR CHARACTERIZATION AND IMAGING SCIENCE.—Section 306 of the Department of Energy Research and Innovation Act (42 U.S.C. 18644) is amended—

(1) in subsection (c), by redesignating paragraphs (6) through (8) as paragraphs (5) through (7), respectively;

(2) by redesignating subsections (b) through (d) as subsections (d) through (f), respectively;

(3) by striking subsection (a) and inserting the following:

''(a) PROGRAM.—As part of the duties of the Director authorized under section 209 of the Department of Energy Organization Act (42 U.S.C. 7139), and coordinated with the activities authorized under sections 303 and 304, the Director shall carry out a program of research and development in the areas of biological systems science

and climate and environmental science, including subsurface science, relevant to the development of new energy technologies and to support the energy, environmental, and national security missions of the Department.

''(b) BIOLOGICAL SYSTEMS.—The Director shall carry out research and development activities in genomic science including fundamental research on plants and microbes to increase systems-level understanding of the complex biological systems, which may include activities—

''(1) to provide a fundamental understanding of the biology of plants, fungi, and microbes as a basis for developing innovative processes for bioenergy and bioproducts and accelerate breakthroughs and new knowledge that would enable the cost-effective, sustainable production of—

''(A) advanced biofuels;

''(B) bioenergy; and

''(C) biobased materials;

''(2) to conduct foundational functional systems biology research—

''(A) to support expanded biosystems design research; and

''(B) to understand—

''(i) fundamental genome structure; and

''(ii) phenomes, including functional genomics of gene products at genome scale;

''(3) to develop biosystems designs and synthetic biology approaches for new nonfood plant-derived and microbially derived bioproducts as a basis for new bioeconomy and biotechnology applications in bioproducts production, resource recovery, recycling, and upcycling ventures;

''(4) to better understand the behavior of microbiomes in the environment and the interdependencies between plants and microbes in a sustainable ecosystem;

''(5) to improve fundamental understanding of plant and microbial processes impacting the global carbon cycle, including processes for removing carbon dioxide from the atmosphere, through photosynthesis and other biological processes, for sequestration, storage, and utilization;

''(6) to understand the microbiome mechanisms and microbiota used to transform, immobilize, or remove contaminants from subsurface environments and that affect the cycling and disposition of carbon, nutrients, and contaminants in the environment;

''(7) to develop the computational approaches and integrated platforms for open access collaborative science;

''(8) to leverage tools and approaches across the Office of Science to expand research to include novel processes, methods, and science to develop bio-based chemicals, polymers, inorganic materials, including research—

''(A) to advance fungal, microbial, and plant biosystems design research to advance the understanding of how CRISPR tools and other gene editing tools and technologies work in nature, in the laboratory, and in practice;

''(B) to deepen genome-enabled knowledge of the roles of microbes and microbial communities, including fungi, in—

''(i) supporting plant and tree growth, productivity, performance, adaptation, and resilience in changing environmental conditions; and

''(ii) optimizing end uses of biomass;

''(C) to develop biosystems design methods and tools to increase the efficiency of photosynthesis in plants; and

''(D) to increase the scale and pace of characterizing the functions and physical characteristics of microbes and microbial communities to improve biosystems design;

''(9) to conduct research focused on developing analysis techniques and simulation capabilities, including artificial intelligence and machine learning, on high-performance computing platforms to accelerate collaborative and reproducible systems biology research;

''(10) to develop and improve new technologies for bioimaging, measurement, and characterization purposes to understand the structural, spatial, and temporal relationships of metabolic processes governing phenotypic expression in plants and microbes;

''(11) to conduct research focused on genotype-to-phenotype translations to develop a predictive understanding of cellular function under a variety of relevant environmental and bioenergy-related conditions;

''(12) to conduct metagenomic and metadata assembly research sequencing and analysis; and

''(13) to develop other relevant methods and processes as determined by the Director.

''(c) BIOMOLECULAR CHARACTERIZATION AND IMAGING SCIENCE.—The Director shall carry out research and development activities in biomolecular characterization and imaging science, including development of new and integrative imaging and analysis platforms and biosensors to understand the expression, structure, and function of genome information encoded within cells and for real-time measurements in ecosystems and field sites of relevance to the mission of the Department.''; and

(4) by adding at the end the following:

''(l) DEFINITIONS.—In this section:

''(1) ADVANCED BIOFUEL.—The term 'advanced biofuel' has the meaning given the term in section 9001 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8101).

''(2) BIOENERGY.—The term 'bioenergy' means energy derived from biofuels.

''(3) BIOMASS.—The term 'biomass' has the meaning given the term in section 203(b) of the Energy Policy Act of 2005 (42 U.S.C. 15852(b)).

''(4) BIOPRODUCT.—The term 'bioproduct' has the meaning given the term 'biobased product' in section 9001 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8101).''.

(b) LOW-DOSE RADIATION RESEARCH PROGRAM.—Paragraph (8) of subsection (e) of section 306 of the Department of Energy Research and Innovation Act (42 U.S.C. 18644), as redesignated by subsection (a)(2), is amended—

(1) in subparagraph (C), by striking ''and'';

(2) in subparagraph (D), by striking the period at the end and inserting a semicolon; and

(3) by adding at the end the following:

''(E) $40,000,000 for fiscal year 2025;

''(F) $50,000,000 for fiscal year 2026; and

''(G) $50,000,000 for fiscal year 2027.''.

(c) LOW-DOSE RADIATION AND SPACE RADIATION RESEARCH PROGRAM.—Subsection (f) of section 306 of the Department of Energy Research and Innovation Act (42 U.S.C. 18644), as redesignated by subsection (a)(2), is amended to read as follows:

''(f) LOW-DOSE RADIATION AND SPACE RADIATION RESEARCH PROGRAM.—

''(1) IN GENERAL.—The Secretary, in consultation with the Administrator of the National Aeronautics and Space Administration, shall carry out a basic research program on the similarities and differences between the effects of exposure to low-dose radiation on Earth, in low Earth orbit, and in the space environment.

''(2) PURPOSE.—The purpose of the program described in paragraph (1) is to accelerate breakthroughs in low-dose and low dose-rate radiation research and development as described in subsection (e) and to inform the advancement of new tools, technologies, and advanced materials needed to facilitate long-duration space exploration.''.

(d) CLIMATE, ENVIRONMENTAL SCIENCE, AND OTHER ACTIVITIES.—Section 306 of the Department of Energy Research and Innovation Act (42 U.S.C. 18644) (as amended by subsection (a)) is amended by inserting after subsection (f) the following:

''(g) EARTH AND ENVIRONMENTAL SYSTEMS SCIENCES ACTIVITIES.—

''(1) IN GENERAL.—As part of the activities authorized under subsection (a), and in coordination with activities carried out under subsection (b), the Director shall coordinate with the National Oceanic and Atmospheric Administration, the National Science Foundation, the Environmental Protection Agency, the National Aeronautics and Space Administration, the Department of Agriculture, the Department of the Interior, and any other relevant agencies to carry out activities relating to Earth and environmental systems science research, which may include activities—

''(A) to understand, observe, measure, and model the response of Earth's atmosphere and biosphere to changing concentrations of greenhouse gas emissions and any associated changes in climate, including frequency and intensity of extreme weather events;

''(B) to understand the coupled physical, chemical, and biological processes to transform, immobilize, remove, or move carbon, nitrogen, and other energy production-derived contaminants such as radionuclides and heavy metals, and understand the process of sequestration and transformation of these, carbon dioxide, and other relevant molecules in subsurface environments;

''(C) to understand, observe, and model the cycling of water, carbon, and nutrients in terrestrial systems across spatiotemporal scales;

''(D) to understand the biological, biogeochemical, and physical processes across the multiple scales that control the flux of environmentally relevant compounds between the terrestrial surface and the atmosphere; and

''(E) to understand and predict interactions among natural and human systems to inform potential mitigation and adaptation options for increased concentrations of greenhouse gas emissions and any associated changes in climate.

''(2) PRIORITIZATION.—In carrying out the program authorized under paragraph (1), the Director shall prioritize—

''(A) the development of software and algorithms to enable the productive application of environmental systems and extreme weather in climate and Earth system prediction models in high-performance computing systems; and

''(B) capabilities that support the Department's mission needs for energy and infrastructure security, resilience, and reliability.

''(3) ENVIRONMENTAL SYSTEMS SCIENCE RESEARCH.—

''(A) IN GENERAL.—As part of the activities described in paragraph (1), the Director shall carry out research to advance an integrated, robust, and scale-aware predictive understanding of environmental systems, including the role of hydrobiogeochemistry, from the subsurface to the top of the vegetative canopy that considers effects of seasonal to interannual variability and change.

''(B) CLEAN WATER AND WATERSHED RESEARCH.—As part of the activities described in subparagraph (A), the Director shall—

''(i) support interdisciplinary research to significantly advance our understanding of water availability, quality, and the impact of human activity and a changing climate on urban and rural watershed systems, including in freshwater environments;

''(ii) consult with the Interagency Research, Development, and Demonstration Coordination Committee on the Nexus of Energy and Water for Sustainability established under section 1010 of the Energy Act of 2020 (Public Law 116–260) on energy-water nexus research activities;

''(iii) engage with representatives of research and academic institutions, nonprofit organizations, State, territorial, local, and Tribal governments, and industry, who have expertise in technologies, technological innovations, or practices relating to the energy-water nexus, as applicable; and

''(iv) coordinate with the National Oceanic and Atmospheric Administration, the National Science Foundation, the Environmental Protection Agency, the National Aeronautics and Space Administration, the Department of Agriculture, the Department of the Interior, and any other relevant agency.

''(C) COORDINATION.—

''(i) DIRECTOR.—The Director shall carry out activities under this paragraph in accordance with priorities established by the Secretary to support and accelerate the decontamination of relevant facilities managed by the Department.

''(ii) SECRETARY.—The Secretary shall ensure the coordination of activities of the Department, including activities under this paragraph, to support and accelerate the decontamination of relevant facilities managed by the Department.

''(4) CLIMATE AND EARTH MODELING.—As part of the activities described in paragraph (1), the Director, in collaboration with the Advanced Scientific Computing Research program described in section 304 and other programs carried out by the Department, as applicable, and in coordination with the National Oceanic and Atmospheric Administration, the National Science Foundation, the National Aeronautics and Space Administration, and other relevant agencies, shall carry out research to develop, evaluate, and use high-resolution regional climate, global climate, Earth system, and other relevant models to inform decisions on reducing greenhouse gas emissions and the resulting impacts of a changing global climate. Such modeling shall include—

''(A) integrated capabilities for modeling multisectoral interactions, including the impacts of climate policies on human systems and the interdependencies and risks at the energy-water-land nexus;

''(B) greenhouse gas emissions, air quality, energy supply and demand, and other critical elements; and

''(C) interaction among human and Earth systems informed by interdisciplinary research, including the economic and social sciences.

''(5) MIDSCALE FUNDING MECHANISM.—

''(A) IN GENERAL.—Any of the activities authorized in this subsection may be carried out, in lieu of individual research grants—

''(i) by competitively selected midscale, multi-institutional research centers;

''(ii) by large-scale experiments or user facilities; or

''(iii) through existing facilities and systems of the Department or the National Oceanic and Atmospheric Administration.

''(B) CONSIDERATION.—The Biological and Environmental Research Advisory Committee shall provide recommendations to the Director on projects most suitable for the research centers described in subparagraph (A).

''(6) ATMOSPHERIC SYSTEMS AND SCIENCES RESEARCH PROGRAM.—

''(A) IN GENERAL.—As part of the activities carried out under paragraph (1), the Director shall carry out a program, to be known as the 'Atmospheric Systems and Sciences Research Program', to use observations to improve understanding of atmospheric processes, under which the Director, in coordination, and as appropriate, collaboration, with the National Oceanic and Atmospheric Administration and other relevant Federal agencies conducting research under the topics described in this subparagraph, shall conduct research relating to—

''(i) better understanding the atmosphere and the interaction of the atmosphere with the surface of the Earth;

''(ii) understanding sources of uncertainty in Earth system models, including with respect to the interdependence of clouds, atmospheric aerosols, radiation processes, and precipitation;

''(iii) understanding the radiative balance and hydrological cycle of Earth;

''(iv) demonstrating the improved predictability of regional and global atmospheric models due to improved process-level understanding;

''(v) atmospheric regimes with large uncertainties in earth system prediction, aerosol processes, warm boundary-layer processes, convective processes, and high-latitude processes;

''(vi) reduced uncertainty and improved simulation capability of earth system models of the atmospheric system in a holistic, comprehensive fashion; and

''(vii) understanding and modeling representation of priority research areas, including aerosol, warm boundary layer, convective, and high-latitude processes.

''(B) ACTIVITIES.—In carrying out the Atmospheric Systems and Sciences Research Program, the Director shall, in coordination, and as appropriate, in collaboration, with other relevant Federal agencies—

''(i) collect data and conduct research to advance atmospheric and Earth system modeling capabilities;

''(ii) develop or participate in existing or future integrated, scalable test-beds that—

''(I) incorporate process-level understanding of the life cycles of aerosols, clouds, and precipitation; and

''(II) can be incorporated into other models;

''(iii) improve data, analysis, and prediction systems in marine, littoral, terrestrial, and arctic environments, including those environments sensitive to changes in the climate, relating to the energy and science mission of the Department; and

''(iv) support the development of technologies relating to—

''(I) more accurate cloud, aerosol, and other atmospheric sensors;

''(II) observing sensor networks; and

''(III) computational predictive modeling.

''(C) USE OF ATMOSPHERIC RADIATION MEASUREMENT PROGRAM FACILITIES AND INFRASTRUCTURE.—To support the Atmospheric Systems and Sciences Research Program and, in coordination, and as appropriate, in collaboration, with the National Oceanic and Atmospheric Administration and other relevant Federal agencies, to improve fundamental understanding of the physical and chemical processes that impact the formation, life cycle, and radiative impacts of cloud and aerosol particles, atmospheric processes, and surface or subsurface phenomena, the Director shall use the facilities and infrastructure of the Atmospheric Radiation Measurement User Facility, the Global Monitoring Laboratory of the National Oceanic and Atmospheric Administration, or other Earth and Environmental Systems Sciences User Facilities—

''(i) to provide support to environmental scientists by collecting high-quality and well-characterized in-situ, remote-sensing, and aircraft observations of—

''(I) the microphysical properties of clouds and atmospheric aerosols;

''(II) the coincident and highly detailed dynamical and thermodynamic properties of the atmospheric environment that contains those clouds and aerosols;

''(III) the properties of precipitation;

''(IV) the properties of radiation and the background environment; and

''(V) the properties of surface or subsurface phenomena;

''(ii) to carry out laboratory studies and ground-based and airborne field campaigns to target specific atmospheric and surface or subsurface processes relating to the energy and science mission of the Department in different locations and across a range of environments, including by developing technologies to assist in advancing predictive capabilities;

''(iii) to build data sets that can be incorporated into atmospheric models; and

''(iv) to enhance observations by using modeling and simulations that test the accuracy of climate model parameterizations.

''(h) BIOLOGICAL AND ENVIRONMENTAL RESEARCH USER FACILITIES.—

''(1) IN GENERAL.—The Director shall carry out a program for the development, construction, operation, and maintenance of user facilities to enhance the collection and analysis of observational data related to complex biological, climate, and environmental systems.

''(2) SELECTION.—

''(A) IN GENERAL.—The Director shall select user facilities under paragraph (1) on a competitive, merit-reviewed basis.

''(B) APPLICANTS.—In selecting user facilities under paragraph (1), the Director shall consider applications from the National Laboratories, institutions of higher education, multi-institutional collaborations, and other appropriate entities.

''(3) FACILITY REQUIREMENTS.—To the maximum extent practicable, the user facilities developed, constructed, operated, or maintained under paragraph (1) shall include—

''(A) distributed field research and observation platforms for understanding earth system processes;

''(B) analytical techniques, instruments, and modeling resources, including high-throughput molecular phenotyping, for understanding and predicting the functional processes of biological and environmental systems;

''(C) integrated high-throughput sequencing, advanced bioanalytic techniques, DNA design and synthesis, metabolomics, and computational analysis; and

''(D) such other facilities as the Director considers appropriate, consistent with section 209 of the Department of Energy Organization Act (42 U.S.C. 7139).

''(4) EXISTING FACILITIES.—In carrying out the program established under paragraph (1), the Director is encouraged to evaluate the capabilities of existing user facilities and, to the maximum extent practicable, invest in modernization of those capabilities to address emerging research priorities.

''(5) EARTH AND ENVIRONMENTAL SYSTEMS SCIENCES USER FACILITIES.—In carrying out the program established under paragraph (1), the Director shall operate at least 1 user facility to advance the collection, validation, and analysis of atmospheric data, including through activities—

''(A) to advance knowledge of the Earth and environmental systems and improve model representations; and

''(B) to measure the impact of atmospheric gases, aerosols, and clouds on the Earth and environmental systems.

''(6) MICROBIAL MOLECULAR PHENOTYPING CAPABILITY PROJECT.—

''(A) IN GENERAL.—The Secretary shall provide for the expansion of the Environmental Molecular Sciences Laboratory, or subsequent facility successor, to advance high-throughput microbial plant and molecular phenotyping capability to accelerate discovery of new protein functions and metabolic pathways in microbial systems.

''(B) CAPABILITIES.—In carrying out subparagraph (A), the Secretary shall ensure the following capabilities:

''(i) Coupled high-throughput autonomous experimental and multimodal analytical capabilities.

''(ii) Direct integration of automated multiomics analyses, biomolecular and cellular imaging, and functional biological assays with high-throughput microbial culturing and cultivation capabilities at timescales relevant to biological processes under natural and perturbed environmental conditions.

''(C) DATA COORDINATION.—In carrying out subparagraph (A), the Secretary shall ensure integration and coordination with existing data platforms and user facilities of the Department.

''(D) START OF OPERATIONS.—Subject to the availability of appropriations, the Secretary shall begin carrying out subparagraph (A) not later than September 29, 2027.

''(E) FUNDING.—Of the funds authorized to be appropriated under subsection (k) for a fiscal year, there are authorized to be appropriated to the Secretary to carry out this paragraph—

''(i) $550,000 for fiscal year 2023;

''(ii) $29,000,000 for fiscal year 2024;

''(iii) $32,000,000 for fiscal year 2025;

''(iv) $30,500,000 for fiscal year 2026; and

''(v) $27,500,000 for fiscal year 2027.

''(7) USER FACILITIES INTEGRATION AND COLLABORATION PROGRAM.—

''(A) IN GENERAL.—The Director shall support a program of collaboration between user facilities to encourage and enable researchers to more readily integrate the tools, expertise, resources, and capabilities of multiple Office of Science user facilities (as described in subsection (d) of section 209 of the Department of Energy Organization Act (42 U.S.C. 7139)) to further research and advance emerging technologies.

''(B) ACTIVITIES.—The program shall advance the integration of automation, robotics, computational biology, bioinformatics, biosensing, cellular platforms and other relevant emerging technologies as determined by the Director to enhance productivity and scientific impact of user facilities.

''(8) COORDINATION.—In carrying out the program authorized under paragraph (1), the Director shall ensure that the Office of Science coordinates with—

''(A) the National Oceanic Atmospheric Administration, the Environmental Protection Agency, the National Aeronautics and Space Administration, the Department of Agriculture, the Department of the Interior, and any other relevant Federal agency on the collection, validation, and analysis of atmospheric data; and

''(B) relevant stakeholders, including institutions of higher education, nonprofit research institutions, industry, State, territorial, local, and Tribal governments, and other appropriate entities to ensure access to the best available relevant atmospheric and historical weather data.

''(i) TERRESTRIAL-AQUATIC INTERFACE RESEARCH INITIATIVE.—

''(1) IN GENERAL.—The Director shall carry out a research program to enhance the understanding of terrestrial-aquatic interface. In carrying out the program, the Director shall prioritize efforts to enhance the collection of observational data, and shall develop models to analyze the natural and human processes that interact in littoral zones.

''(2) LITTORAL DATA COLLECTION SYSTEM.—The Director shall establish an integrated system of geographically diverse field research sites in order to improve the scientific understanding and predictability of the major land water interfaces of the United States through improved data quantity and quality, including in—

''(A) the Great Lakes region;

''(B) the Pacific coast;

''(C) the Atlantic coast;

''(D) the Arctic;

''(E) the Gulf coast; and

''(F) the coasts of United States territories and freely associated States.

''(3) EXISTING INFRASTRUCTURE.—In carrying out the programs and establishing the field research sites under paragraphs (1) and (2), the Secretary shall leverage existing research and development infrastructure supported by the Department, including the Department's existing marine and coastal research lab.

''(4) COORDINATION.—For the purposes of carrying out the programs and establishing the field research sites under paragraphs (1) and (2), the Secretary may enter into agreements with Federal departments and agencies with complementary capabilities, including the National Oceanic and Atmospheric Administration and any other relevant Federal agency as appropriate.

''(5) REPORT.—Not earlier than 2 years after the date of enactment of the Research and Development, Competition, and Innovation Act, the Director shall provide to the Committee on Science, Space, and Technology, the Committee on Natural Resources, and the Committee on Appropriations of the House of Representatives, and the Committee on Energy and Natural Resources and the Committee on Appropriations of the Senate, a report examining whether the system described in paragraph (2) should be established as a National User Facility within the Department or as a research facility within another Federal agency.

''(6) INTEROPERABILITY.—

''(A) IN GENERAL.—The Director shall ensure that activities carried out under paragraphs (1) and (2), including observation, data collection, monitoring, and model development and enhancements, are interoperable and may be integrated with existing related systems at the National Oceanic and Atmospheric Administration and other relevant Federal agencies, as practicable.

''(B) RESOURCES.—In carrying out subparagraph (A), in support of interoperability, as practicable, the Director may make available to other Federal agencies high performance computing resources.

''(C) NOAA.—The National Oceanic and Atmospheric Administration shall integrate the data collected under the programs carried out under paragraphs (1) and (2) into relevant data systems and models, as practicable.

''(j) ENGINEERED ECOSYSTEMS INITIATIVE.—

''(1) IN GENERAL.—The Secretary shall establish within the Biological and Environmental Research program an initiative focused on the development of engineered ecosystems through the application of artificial intelligence, novel sensing capabilities, and other emerging technologies.

''(2) INTERAGENCY COORDINATION.—The Secretary shall coordinate with the Director of the National Science Foundation, the Administrator of the National Oceanic and Atmospheric Administration, the Director of the U.S. Geological Survey, the Secretary of Agriculture, and other relevant officials to avoid duplication of research and observational activities and to ensure that activities carried out under the initiative established under paragraph (1) are complimentary to activities being undertaken by other agencies.

''(3) REPORT.—Not later than 180 days after the date of enactment of the Research and Development, Competition, and Innovation Act, the Secretary shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report on the activity authorized under this subsection.

''(k) AUTHORIZATION OF APPROPRIATIONS.—Out of funds authorized to be appropriated for the Office of Science in a fiscal year, there are authorized to be appropriated to the Secretary to carry out the activities described in this section—

''(1) $885,420,000 for fiscal year 2023;

''(2) $946,745,200 for fiscal year 2024;

''(3) $1,001,149,912 for fiscal year 2025;

''(4) $1,068,818,907 for fiscal year 2026; and

''(5) $1,129,948,041 for fiscal year 2027.''.

(e) BIOENERGY RESEARCH CENTERS.—Section 977 of the Energy Policy Act of 2005 (42 U.S.C. 16317) is amended by striking subsection (f) and inserting the following:

''(f) BIOENERGY RESEARCH CENTERS.—

''(1) IN GENERAL.—In carrying out the program under section 306(a) of the Department of Energy Research and Innovation Act (42 U.S.C. 18644(a)), the Director shall support up to 6 bioenergy research centers to conduct fundamental research in plant and microbial systems biology, biological imaging and analysis, and genomics, and to accelerate advanced research and development of advanced biofuels, bioenergy or biobased materials, chemicals, and products that are produced from a variety of regionally diverse feedstocks, and to facilitate the translation of research results to industry. The activities of the centers authorized under this subsection may include—

''(A) accelerating the domestication of bioenergy-relevant plants, microbes, and associated microbial communities to enable high-impact, value-added coproduct development at multiple points in the bioenergy supply chain;

''(B) developing the science and technological advances to ensure process sustainability is considered in the creation of advanced biofuels and bioproducts from lignocellulosic biomass; and

''(C) using the latest tools in genomics, molecular biology, catalysis science, chemical engineering, systems biology, and computational and robotics technologies to sustainably produce and transform biomass into advanced biofuels and bioproducts.

''(2) SELECTION AND DURATION.—

''(A) IN GENERAL.—A center established under paragraph (1) shall be selected on a competitive, merit-reviewed basis for a period of not more than 5 years, subject to the availability of appropriations, beginning on the date of establishment of that center.

''(B) APPLICATIONS.—The Director shall consider applications from National Laboratories, multi-institutional collaborations, and other appropriate entities.

''(C) EXISTING CENTERS.—A center already in existence on the date of enactment of the Research and Development, Competition, and Innovation Act may continue to receive support for a period of not more than 5 years beginning on the date of establishment of that center.

''(D) NEW CENTERS.—The Director shall select any new center pursuant to paragraph (1) on a competitive, merit-reviewed basis, with special consideration for applications from an institution of higher education (as defined in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001)) that is located in an eligible jurisdiction (as defined in section 2203(b)(3)(A) of the Energy Policy Act of 1992 (42 U.S.C. 13503(b)(3)(A))).

''(3) RENEWAL.—After the end of the applicable period described in paragraph (2), the Director may renew support for a center for a period of not more than 5 years on a merit-reviewed basis. For a center in operation for 10 years after its previous selection on a competitive, merit-reviewed basis, the Director may renew support for the center on a competitive, merit-reviewed basis for a period of not more than 5 years, and may subsequently provide an additional renewal on a merit-reviewed basis for a period of not more than 5 years.

''(4) ACTIVITIES.—Centers shall undertake research activities to accelerate the production of advanced biofuels and bioproducts from biomass resources by identifying the most suitable species of plants for use as energy crops; and improving methods of breeding, propagation, planting, producing, harvesting, storage and processing. Activities may include the following:

''(A) Research activities to increase sustainability, including—

''(i) advancing knowledge of how bioenergy crop interactions with biotic and abiotic environmental factors influence crop growth, yield, and quality;

''(ii) identifying the most impactful research areas that address the economics of advanced biofuels and bioproducts production; and

''(iii) utilizing multiscale modeling to advance predictive understanding of advanced biofuel cropping ecosystems.

''(B) Research activities to further feedstock development, including lignocellulosic, algal, gaseous wastes including carbon oxides and methane, and direct air capture of single carbon gases via plants and microbes, including—

''(i) developing genetic and genomic tools, high-throughput analytical tools, and biosystems design approaches to enhance bioenergy feedstocks and their associated microbiomes;

''(ii) conducting field testing of new potential bioenergy feedstock crops under environmentally benign and geographically diverse conditions to assess viability and robustness; and

''(iii) developing quantitative models informed by experimentation to predict how bioenergy feedstocks perform under diverse conditions.

''(C) Research activities to improve lignocellulosic deconstruction and separation methods, including—

''(i) developing feedstock-agnostic deconstruction processes capable of efficiently fractionating biomass into targeted output streams;

''(ii) gaining a detailed understanding of plant cell wall biosynthesis, composition, structure, and properties during deconstruction; and

''(iii) improving enzymes and approaches for biomass breakdown and cellulose, hemicellulose, and lignin processing.

''(D) Research activities to improve the feedstock conversion process for advanced biofuels and bioproducts, including—

''(i) developing high-throughput methods to screen or select high-performance microbial strains and communities to improve product formation rates, yields, and selectivity;

''(ii) establishing a broad set of platform microorganisms and microbial communities suitable for metabolic engineering to produce advanced biofuels and bioproducts and high-throughput methods for experimental validation of gene function;

''(iii) developing techniques to enhance microbial robustness for tolerating toxins to improve advanced biofuel and bioproduct yields and to gain a better understanding of the cellular and molecular bases of tolerance for major chemical classes of inhibitors found in these processes;

''(iv) advancing technologies for the use of batch, continuous, and consolidated bioprocessing;

''(v) identifying, creating, and optimizing microbial and chemical pathways to produce promising, atom-economical intermediates and final bioproducts from biomass with considerations given to environmentally benign processes;

''(vi) developing high-throughput, real-time, in situ analytical techniques to understand and characterize the pre- and post-bioproduct separation streams in detail;

''(vii) creating methodologies for efficiently identifying viable target molecules, identifying high-value bioproducts in existing biomass streams, and utilizing current byproduct streams;

''(viii) identifying and improving plant feedstocks with enhanced extractable levels of desired bioproducts or bioproduct precursors, including lignin streams; and

''(ix) developing integrated biological and chemical catalytic approaches to valorize and produce a diverse portfolio of advanced biofuels and bioproducts.

''(5) INDUSTRY PARTNERSHIPS.—Centers shall establish industry partnerships to translate research results to commercial applications.

''(6) COORDINATION.—In coordination with the Bioenergy Technologies Office of the Department, the Secretary shall support interdisciplinary research activities to improve the capacity, efficiency, resilience, security, reliability, and affordability, of the production and use of advanced biofuels and bioproducts, as well as activities to enable positive impacts and avoid the potential negative impacts that the production and use of advanced biofuels and bioproducts may have on ecosystems, people, and historically marginalized communities.

''(7) FUNDING.—Of the funds authorized to be appropriated under subsection (k) of section 306 of the Department of Energy Research and Innovation Act (42 U.S.C. 18644) for a fiscal year, there is authorized to be appropriated to the Secretary to carry out this subsection $30,000,000 per center established under paragraph (1) for each of fiscal years 2023 through 2027.

''(8) DEFINITIONS.—In this subsection:

''(A) ADVANCED BIOFUEL.—The term 'advanced biofuel' has the meaning given the term in section 9001 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8101).

''(B) BIOENERGY.—The term 'bioenergy' means energy derived from biofuels.

''(C) BIOMASS.—The term 'biomass' has the meaning given the term in section 203(b) of the Energy Policy Act of 2005 (42 U.S.C. 15852(b)).

''(D) BIOPRODUCT.—The term 'bioproduct' has the meaning given the term 'biobased product' in section 9001 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8101).''.

SEC. 10104. ADVANCED SCIENTIFIC COMPUTING RESEARCH PROGRAM.

(a) ADVANCED SCIENTIFIC COMPUTING RESEARCH.—Section 304 of the Department of Energy Research and Innovation Act (42 U.S.C. 18642) is amended—

(1) by redesignating subsections (a) through (c) as subsections (b) through (d), respectively;

(2) by inserting before subsection (b), as so redesignated, the following:

''(a) IN GENERAL.—As part of the activities authorized under section 209 of the Department of Energy Organization Act (42 U.S.C. 7139), the Director shall carry out, in coordination with academia and relevant public and private sector entities, a research, development, and demonstration program—

''(1) to steward applied mathematics, computational science, and computer science research relevant to the missions of the Department and the competitiveness of the United States;

''(2) to develop modeling, simulation, and other computational tools relevant to other scientific disciplines and to the development of new energy technologies and other technologies;

''(3) to advance computing and networking capabilities for data-driven discovery; and

''(4) to develop advanced scientific computing hardware and software tools for science and engineering.'';

(3) in subsection (c), as so redesignated—

(A) by striking ''The Director'' and inserting the following:

''(1) DIRECTOR.—The Director''; and

(B) by adding at the end the following:

''(2) COORDINATION.—The Under Secretary for Science shall ensure the coordination of the activities of the Department, including activities under this section, to determine and meet the computational and networking research and facility needs of the Office of Science and all other relevant energy technology and energy efficiency programs within the Department and with other Federal agencies as appropriate.'';

(4) by amending subsection (d), as so redesignated, to read as follows:

''(d) APPLIED MATHEMATICS AND SOFTWARE DEVELOPMENT FOR HIGH-END COMPUTING SYSTEMS AND COMPUTER SCIENCES RESEARCH.—

''(1) IN GENERAL.—The Director shall carry out activities to develop, test, and support—

''(A) mathematics, statistics, and algorithms for modeling complex systems relevant to the missions of the Department, including on advanced computing architectures; and

''(B) tools, languages, programming environments, and operations for high-end computing systems (as defined in section 2 of the American Super Computing Leadership Act of 2017 (15 U.S.C. 5541)).

''(2) PORTFOLIO BALANCE.—

''(A) IN GENERAL.—The Director shall maintain a balanced portfolio within the advanced scientific computing research and development program established under section 976 of the Energy Policy Act of 2005 (42 U.S.C. 16316) that supports robust investment in—

''(i) applied mathematical, computational, and computer sciences research needs relevant to the mission of the Department, including foundational areas that are critical to the advancement of energy sciences and technologies and new and emerging computing technologies; and

''(ii) associated high-performance computing hardware and facilities.

''(B) EXASCALE ECOSYSTEM SUSTAINMENT.—

''(i) SENSE OF CONGRESS.—It is the sense of Congress that the Exascale Computing Project has successfully created a broad ecosystem that provides shared software packages, novel evaluation systems, and applications relevant to the science and engineering requirements of the Department, and that such products must be maintained and improved in order that the full potential of the deployed systems can be continuously realized.

''(ii) SUSTAINMENT.—The Secretary shall seek to sustain and evolve the ecosystem described in clause (i) to ensure that the exascale software stack and other research software will continue to be maintained, hardened, and otherwise optimized for long-term use on exascale systems and beyond and reliable availability to the user community.''; and

(5) by adding at the end the following:

''(e) ADVANCED COMPUTING PROGRAM.—

''(1) IN GENERAL.—The Secretary shall establish a program to develop and implement a strategy for achieving computing systems with capabilities beyond exascale computing systems. In establishing this program, the Secretary shall—

''(A) maintain foundational research programs in mathematical, computational, and computer sciences focused on new and emerging computing needs within the mission of the Department, including post-Moore's law computing architectures, novel approaches to modeling and simulation, artificial intelligence and scientific machine learning, quantum computing, edge computing, extreme heterogeneity, including potential quantum accelerators, and distributed high-performance computing;

''(B) retain best practices and maintain support for essential hardware, applications, and software elements of the Exascale Computing Program that are necessary for sustaining the vitality of a long-term capable software ecosystem for exascale and beyond; and

''(C) develop a Department-wide strategy for balancing on-premises and cloud-based computing and scientific data management.

''(2) REPORT.—Not later than 1 year after the date of enactment of the Research and Development, Competition, and Innovation Act, the Secretary shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report on the development and implementation of the strategy described in paragraph (1).

''(f) GUIDANCE ON MITIGATION OF BIAS IN HIGH-PERFORMANCE COMPUTING CAPABILITIES.—In leveraging high-performance computing systems for research purposes, including through the use of machine learning algorithms for data analysis and artificial intelligence, the Secretary shall issue, and ensure adherence to, guidance for the Department, the National Laboratories, and users as to how those capabilities should be employed in a manner that mitigates and, to the maximum extent practicable, avoids harmful algorithmic bias.

''(g) ARCHITECTURAL RESEARCH IN HETEROGENEOUS COMPUTING SYSTEMS.—

''(1) IN GENERAL.—The Secretary shall carry out a program of research and development in heterogeneous and reconfigurable computing systems to expand understanding of the potential for heterogeneous and reconfigurable computing systems to deliver high performance, high efficiency computing for Department mission challenges. The program shall include research and development that explores the convergence of big data analytics, simulations, and artificial intelligence to drive the design of heterogeneous computing system architectures.

''(2) COORDINATION.—In carrying out the program described in paragraph (1), the Secretary shall ensure coordination between research activities undertaken by the Advanced Scientific Computing Research program and materials research supported by the Basic Energy Sciences program within the Office of Science.

''(h) ENERGY EFFICIENT COMPUTING PROGRAM.—

''(1) IN GENERAL.—The Secretary shall support a program of fundamental research, development, and demonstration of energy efficient computing and data center technologies relevant to advanced computing applications, including high-performance computing, artificial intelligence, and scientific machine learning.

''(2) EXECUTION.—

''(A) PROGRAM.—In carrying out the program under paragraph (1), the Secretary shall—

''(i) establish a partnership for National Laboratories, industry partners, and institutions of higher education for codesign of energy efficient

hardware, technology, software, and applications across all applicable program offices of the Department, and provide access to energy efficient computing resources to such partners;

''(ii) develop hardware and software technologies that decrease the energy needs of advanced computing practices, including through data center codesign;

''(iii) consider multiple heterogeneous computing architectures in collaboration with the program established under subsection (g), including neuromorphic computing, persistent computing, and ultrafast networking; and

''(iv) provide, as appropriate, on a competitive, merit-reviewed basis, access for researchers from institutions of higher education, National Laboratories, industry, and other Federal agencies to the energy efficient computing technologies developed pursuant to clause (i).

''(B) SELECTION OF PARTNERS.—In selecting participants for the partnership established under subparagraph (A)(i), the Secretary shall select participants through a competitive, merit review process.

''(C) REPORT.—Not later than 1 year after the date of enactment of the Research and Development, Competition, and Innovation Act, the Secretary shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report on—

''(i) the activities conducted under subparagraph (A); and

''(ii) the coordination and management of the program under subparagraph (A) to ensure an integrated research program across the Department.

''(i) ENERGY SCIENCES NETWORK.—

''(1) IN GENERAL.—The Secretary shall provide for upgrades to the Energy Sciences Network user facility in order to meet the research needs of the Department for highly reliable data transport capabilities optimized for the requirements of large-scale science.

''(2) CAPABILITIES.—In carrying out paragraph (1), the Secretary shall ensure the following capabilities:

''(A) To provide high bandwidth scientific networking across the continental United States and the Atlantic Ocean.

''(B) To ensure network reliability.

''(C) To protect the network infrastructure from cyberattacks.

''(D) To manage transport of exponentially increasing levels of data from the Department's National Laboratories and sites, user facilities, experiments, and sensors.

''(E) To contribute to the integration of heterogeneous computing frameworks and systems.

''(j) COMPUTATIONAL SCIENCE GRADUATE FELLOWSHIP.—

''(1) IN GENERAL.—The Secretary shall support the Computational Science Graduate Fellowship program in order to facilitate collaboration between graduate students and researchers at the National Laboratories, and contribute to the development of a diverse and inclusive computational workforce to help advance research in all areas of computational science relevant to the mission of the Department, including quantum computing.

''(2) FUNDING.—Of the funds authorized to be appropriated for the Advanced Scientific Computing Research Program, there are authorized to be appropriated to the Secretary for carrying out activities under this subsection—

''(A) $15,750,000 for fiscal year 2023;

''(B) $16,537,500 for fiscal year 2024;

''(C) $17,364,375 for fiscal year 2025;

''(D) $18,232,594 for fiscal year 2026; and

''(E) $19,144,223 for fiscal year 2027.

''(k) AUTHORIZATION OF APPROPRIATIONS.—Out of funds authorized to be appropriated for the Office of Science in a fiscal year, there are authorized to be appropriated to the Secretary to carry out the activities described in this section—

''(1) $1,126,950,000 for fiscal year 2023;

''(2) $1,194,109,500 for fiscal year 2024;

''(3) $1,265,275,695 for fiscal year 2025;

''(4) $1,340,687,843 for fiscal year 2026; and

''(5) $1,420,599,500 for fiscal year 2027.''.

(b) QUANTUM SCIENCE NETWORK.—

(1) DEFINITIONS.—Section 2 of the National Quantum Initiative Act (15 U.S.C. 8801) is amended—

(A) by redesignating paragraph (7) as paragraph (8); and

(B) by inserting after paragraph (6) the following:

''(7) QUANTUM NETWORK INFRASTRUCTURE.—The term 'quantum network infrastructure' means any facility, expertise, or capability that is necessary to enable the development and deployment of scalable and diverse quantum network technologies.''.

(2) DEPARTMENT OF ENERGY QUANTUM NETWORK INFRASTRUCTURE RESEARCH AND DEVELOPMENT PROGRAM.—

(A) IN GENERAL.—Title IV of the National Quantum Initiative Act (15 U.S.C. 8851 et seq.) is amended by adding at the end the following:

''SEC. 403. DEPARTMENT OF ENERGY QUANTUM NETWORK INFRASTRUCTURE RESEARCH AND DEVELOPMENT PROGRAM.

''(a) IN GENERAL.—The Secretary of Energy (referred to in this section as the 'Secretary') shall carry out a research, development, and demonstration program to accelerate innovation in quantum network infrastructure in order to—

''(1) facilitate the advancement of distributed quantum computing systems through the internet and intranet;

''(2) improve the precision of measurements of scientific phenomena and physical imaging technologies;

''(3) develop secure national quantum communications technologies and strategies;

''(4) demonstrate quantum networking utilizing the Department of Energy's Energy Sciences Network User Facility; and

''(5) advance the relevant domestic supply chains, manufacturing capabilities, and associated simulations or modeling capabilities.

''(b) PROGRAM.—In carrying out this section, the Secretary shall—

''(1) coordinate with—

''(A) the Director of the National Science Foundation;

''(B) the Director of the National Institute of Standards and Technology;

''(C) the Chair of the Subcommittee on Quantum Information Science of the National Science and Technology Council established under section 103(a); and

''(D) the Chair of the Subcommittee on the Economic and Security Implications of Quantum Science;

''(2) conduct cooperative research with industry, National Laboratories, institutions of higher education, and other research institutions to facilitate new quantum infrastructure methods and technologies, including—

''(A) quantum-limited detectors, ultra-low loss optical channels, space-to-ground connections, and classical networking and cybersecurity protocols;

''(B) entanglement and hyper-entangled state sources and transmission, control, and measurement of quantum states;

''(C) quantum interconnects that allow short range local connections between quantum processors;

''(D) transducers for quantum sources and signals between optical wavelength regimes, including telecommunications regimes and quantum computer-relevant domains, including microwaves;

''(E) development of quantum memory buffers and small-scale quantum computers that are compatible with photon-based quantum bits in the optical or telecommunications wavelengths;

''(F) long-range entanglement distribution, including allowing entanglement-based protocols between small- and large scale quantum processors, at the terrestrial and space-based level using quantum repeaters and optical or laser communications;

''(G) quantum routers, multiplexers, repeaters, and related technologies necessary to create secure long-distance quantum communication; and

''(H) integration of systems across the quantum technology stack into traditional computing networks, including the development of remote controlled, high-performance, and reliable implementations of key quantum network components by leveraging the expertise, infrastructure and supplemental investments at the National Laboratories in the Energy Sciences Network User Facility;

''(3) engage with the Quantum Economic Development Consortium and other organizations, as applicable, to transition component technologies to help facilitate as appropriate the development of a quantum supply chain for quantum network technologies;

''(4) advance basic research in advanced scientific computing, particle and nuclear physics, and material science to enhance the understanding, prediction, and manipulation of materials, processes, and physical phenomena relevant to quantum network infrastructure;

''(5) develop experimental tools and testbeds in collaboration with the Energy Sciences Network User Facility necessary to support cross-cutting fundamental research and development activities with diverse stakeholders from industry, National Laboratories, and institutions of higher education; and

''(6) consider quantum network infrastructure applications that span the Department of Energy's missions in energy, environment, and national security.

''(c) LEVERAGING.—In carrying out this section, the Secretary shall leverage resources, infrastructure, and expertise across the Department of Energy and from—

''(1) the National Institute of Standards and Technology;

''(2) the National Science Foundation;

''(3) the National Aeronautics and Space Administration;

''(4) other relevant Federal agencies;

''(5) the National Laboratories;

''(6) industry stakeholders;

''(7) institutions of higher education; and

''(8) the National Quantum Information Science Research Centers.

''(d) RESEARCH PLAN.—Not later than 180 days after the date of enactment of the Research and Development, Competition, and Innovation Act, the Secretary shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a 4-year research plan that identifies and prioritizes basic research needs relating to quantum network infrastructure.

''(e) STANDARD OF REVIEW.—The Secretary shall review activities carried out under this section to determine the achievement of technical milestones.

''(f) FUNDING.—Of the funds authorized to be appropriated for the Department of Energy's Office of Science, there is authorized to be appropriated to the Secretary to carry out the activities under this section $100,000,000 for each of fiscal years 2023 through 2027.

''SEC. 404. DEPARTMENT OF ENERGY QUANTUM USER EXPANSION FOR SCIENCE AND TECHNOLOGY PROGRAM.

''(a) IN GENERAL.—The Secretary of Energy (referred to in this section as the 'Secretary') shall establish and carry out a program, to be known as the 'Quantum User Expansion for Science and Technology program' or 'QUEST program', to encourage and facilitate access to United States quantum computing hardware and quantum computing clouds for research purposes—

''(1) to enhance the United States quantum research enterprise;

''(2) to educate the future quantum computing workforce;

''(3) to accelerate the advancement of United States quantum computing capabilities; and

''(4) to advance the relevant domestic supply chains, manufacturing processes, and associated simulations or modeling capabilities.

''(b) PROGRAM.—In carrying out this section, the Secretary shall—

''(1) coordinate with—

''(A) the Director of the National Science Foundation;

''(B) the Director of the National Institute of Standards and Technology;

''(C) the Chair of the Subcommittee on Quantum Information Science of the National Science and Technology Council established under section 103(a); and

''(D) the Chair of the Subcommittee on the Economic and Security Implications of Quantum Science;

''(2) provide researchers based within the United States with access to, and use of, United States quantum computing resources through a competitive, merit-reviewed process;

''(3) consider applications from the National Laboratories, multi-institutional collaborations, institutions of higher education, industry stakeholders, and any other entities that the Secretary determines are appropriate to provide national leadership on quantum computing related issues;

''(4) coordinate with private sector stakeholders, the user community, and interagency partners on program development and best management practices; and

''(5) to the extent practicable, balance user access to commercial prototypes available for use across a broad class of applications and Federal research prototypes that enable benchmarking a wider variety of early-stage devices.

''(c) LEVERAGING.—In carrying out this section, the Secretary shall leverage resources and expertise across the Department of Energy and from—

''(1) the National Institute of Standards and Technology;

''(2) the National Science Foundation;

''(3) the National Aeronautics and Space Administration;

''(4) other relevant Federal agencies;

''(5) the National Laboratories;

''(6) industry stakeholders;

''(7) institutions of higher education; and

''(8) the National Quantum Information Science Research Centers.

''(d) SECURITY.—In carrying out the activities authorized by this section, the Secretary, in consultation with the Director of the National Science Foundation and the Director of the National Institute of Standards and Technology, shall ensure proper security controls are in place to protect sensitive information, as appropriate.

''(e) FUNDING.—Of the funds authorized to be appropriated for the Department of Energy's Office of Science, there are authorized to be appropriated to the Secretary to carry out the activities under this section—

''(1) $30,000,000 for fiscal year 2023;

''(2) $31,500,000 for fiscal year 2024;

''(3) $33,075,000 for fiscal year 2025;

''(4) $34,728,750 for fiscal year 2026; and

''(5) $36,465,188 for fiscal year 2027.''.

(B) CLERICAL AMENDMENT.—The table of contents in section 1(b) of the National Quantum Initiative Act (Public Law 115–368; 132 Stat. 5092) is amended by inserting after the item relating to section 402 the following:

''Sec. 403. Department of Energy quantum network infrastructure research and development program.

''Sec. 404. Department of Energy quantum user expansion for science and technology program.''.

SEC. 10105. FUSION ENERGY RESEARCH.

(a) FUSION ENERGY RESEARCH.—Section 307 of the Department of Energy Research and Innovation Act (42 U.S.C. 18645) is amended—

(1) in subsection (b)—

(A) in paragraph (2), by redesignating subparagraphs (A) and (B) as clauses (i) and (ii), respectively, and indenting appropriately;

(B) by redesignating paragraphs (1) and (2) as subparagraphs (A) and (B), respectively, and indenting appropriately;

(C) in the matter preceding subparagraph (A) (as so redesignated), by striking ''As part of'' and inserting the following:

''(1) IN GENERAL.—As part of''; and

(D) by adding at the end the following:

''(2) AUTHORIZATION OF APPROPRIATIONS.—Out of funds authorized to be appropriated under subsection (q), there is authorized to be appropriated to the Secretary to carry out activities described in paragraph (1) $50,000,000 for each of fiscal years 2023 through 2027.'';

(2) in subsection (d)(3)—

(A) by striking ''(o)'' and inserting ''(q)'';

(B) by striking ''subsection (d)'' and inserting ''this subsection''; and

(C) by striking ''2025'' and inserting ''2027'';

(3) in subsection (e)(4)—

(A) by striking ''(o)'' and inserting ''(q)'';

(B) by striking ''subsection (e)'' and inserting ''this subsection''; and

(C) by striking ''2025'' and inserting ''2027'';

(4) in subsection (i)(10)—

(A) in the matter preceding subparagraph (A)—

(i) by striking ''(o)'' and inserting ''(q)''; and

(ii) by striking ''subsection (i)'' and inserting ''this subsection'';

(B) in subparagraph (D), by striking ''and'' at the end;

(C) in subparagraph (E), by striking the period at the end and inserting a semicolon; and

(D) by adding at the end the following:

''(F) $45,000,000 for fiscal year 2026; and

''(G) $45,000,000 for fiscal year 2027.'';

(5) by striking subsection (j) and inserting the following:

''(j) FUSION REACTOR SYSTEM DESIGN.—

''(1) IN GENERAL.—Not later than 180 days after the date of enactment of the Research and Development, Competition, and Innovation Act, the Director shall establish not less than 2 national teams described in paragraph (2) that shall—

''(A) develop conceptual pilot plant designs and technology roadmaps; and

''(B) create an engineering design of a pilot plant that will bring fusion to commercial viability.

''(2) NATIONAL TEAMS.—A national team referred to in paragraph (1) shall—

''(A) be composed of developers, manufacturers, universities, National Laboratories, and representatives of the engineering, procurement, and construction industries; and

''(B) include public-private partnerships.

''(3) AUTHORIZATION OF APPROPRIATIONS.—Of the funds authorized to be appropriated for Fusion Energy Sciences in a fiscal year, there are authorized to be appropriated to the Secretary to carry out this subsection—

''(A) $35,000,000 for fiscal year 2023;

''(B) $50,000,000 for fiscal year 2024;

''(C) $65,000,000 for fiscal year 2025;

''(D) $80,000,000 for fiscal year 2026; and

''(E) $80,000,000 for fiscal year 2027.'';

(6) by redesignating subsection (o) as subsection (r);

(7) by inserting after subsection (n) the following:

''(o) HIGH-PERFORMANCE COMPUTATION COLLABORATIVE RESEARCH PROGRAM.—

''(1) IN GENERAL.—The Secretary shall carry out a program to conduct and support collaborative research, development, and demonstration of fusion energy technologies, through high-performance computation modeling and simulation techniques, in order—

''(A) to support fundamental research in plasmas and matter at very high temperatures and densities;

''(B) to inform the development of a broad range of fusion energy systems; and

''(C) to facilitate the translation of research results in fusion energy science to industry.

''(2) COORDINATION.—In carrying out the program under paragraph (1), the Secretary shall coordinate with relevant Federal agencies, and prioritize the following objectives:

''(A) To use expertise from the private sector, institutions of higher education, and the National Laboratories to leverage existing, and develop new, computational software and capabilities that prospective users may use to accelerate research and development of fusion energy systems.

''(B) To develop computational tools to simulate and predict fusion energy science phenomena that may be validated through physical experimentation.

''(C) To increase the utility of the research infrastructure of the Department by coordinating with the Advanced Scientific Computing Research program within the Office of Science.

''(D) To leverage experience from existing modeling and simulation entities sponsored by the Department.

''(E) To ensure that new experimental and computational tools are accessible to relevant research communities, including private sector entities engaged in fusion energy technology development.

''(F) To ensure that newly developed computational tools are compatible with modern virtual engineering and visualization capabilities to accelerate the realization of fusion energy technologies and systems.

''(3) DUPLICATION.—The Secretary shall ensure the coordination of, and avoid unnecessary duplication of, the activities of the program under paragraph (1) with the activities of—

''(A) other research entities of the Department, including the National Laboratories, the Advanced Research Projects Agency—Energy, and the Advanced Scientific Computing Research program within the Office of Science; and

''(B) industry.

''(4) HIGH-PERFORMANCE COMPUTING FOR FUSION INNOVATION CENTER.—

''(A) IN GENERAL.—In carrying out the program under paragraph (1), the Secretary shall, in coordination with the Innovation Network for Fusion Energy, establish and operate a national High-Performance Computing for Fusion Innovation Center (referred to in this paragraph as the 'Center'), to support the program under paragraph (1) by providing, to the extent practicable, a centralized entity for multidisciplinary, collaborative, fusion energy research and development through high-performance computing and advanced data analytics technologies and processes.

''(B) ELIGIBLE ENTITIES.—An entity eligible to serve as the Center shall be—

''(i) a National Laboratory;

''(ii) an institution of higher education;

''(iii) a multi-institutional collaboration; or

''(iv) any other entity that the Secretary determines to be appropriate.

''(C) APPLICATION; SELECTION.—

''(i) APPLICATION.—To be eligible to serve as the Center, an eligible entity shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require.

''(ii) SELECTION.—The Secretary shall select the Center on a competitive, merit-reviewed basis.

''(D) EXISTING ACTIVITIES.—The Center may incorporate existing research activities that are consistent with the program under paragraph (1).

''(E) PRIORITIES.—

''(i) IN GENERAL.—The Center shall prioritize activities that utilize expertise and infrastructure from a balance among the private sector, institutions of higher education, and the National Laboratories to enhance existing computation tools and develop new computational software and capabilities to accelerate the commercial application of fusion energy systems.

''(ii) MAINTENANCE OF RESOURCE AVAILABILITY.—The Secretary may enter into contracts with commercial cloud computing providers to ensure that resource availability within the Department is not reduced or disproportionately distributed as a result of Center activities.

''(F) DURATION.—Subject to subparagraph (G), the Center shall receive support for a period of not more than 5 years, subject to the availability of appropriations.

''(G) RENEWAL.—On the expiration of the period of support of the Center under subparagraph (F), the Secretary may renew support for the Center, on a merit-reviewed basis, for a period of not more than 5 years.

''(p) MATERIAL PLASMA EXPOSURE EXPERIMENT.—

''(1) IN GENERAL.—The Secretary shall construct a Material Plasma Exposure Experiment facility as described in the 2020 publication approved by the Fusion Energy Sciences Advisory Committee entitled 'Powering the Future: Fusion and Plasmas'. The Secretary shall consult with the private sector, institutions of higher education, National Laboratories, and relevant Federal agencies to ensure that the facility is capable of meeting Federal research needs for steady state, high-heat-flux, and plasma-material interaction testing of fusion materials over a range of fusion energy relevant parameters.

''(2) FACILITY CAPABILITIES.—The Secretary shall ensure that the facility described in paragraph (1) will provide the following capabilities:

''(A) A magnetic field at the target of 1 Tesla.

''(B) An energy flux at the target of 10 MW/m^2.

''(C) The ability to expose previously irradiated plasma facing material samples to plasma.

''(3) START OF OPERATIONS.—The Secretary shall, subject to the availability of appropriations, ensure that the start of full operations of the facility described in paragraph (1) occurs before December 31, 2027.

''(4) FUNDING.—Of the funds authorized to be appropriated for Fusion Energy Sciences, there are authorized to be appropriated to the Secretary for the Office of Fusion Energy Sciences to complete construction of the facility described in paragraph (1)—

''(A) $21,895,000 for fiscal year 2023; and

''(B) $3,800,000 for fiscal year 2024.

''(q) MATTER IN EXTREME CONDITIONS INSTRUMENT UPGRADE.—

''(1) IN GENERAL.—The Secretary shall provide for the upgrade to the Matter in Extreme Conditions endstation at the Linac Coherent Light Source as described in the 2020 publication approved by the Fusion Energy Sciences Advisory Committee entitled 'Powering the Future: Fusion and Plasmas'. The Secretary shall consult with the private sector, institutions of higher education, National Laboratories, and relevant Federal agencies to ensure that this facility is capable of meeting Federal research needs for understanding physical and chemical changes to plasmas at fundamental timescales, and explore new regimes of dense material physics, astrophysics, planetary physics, and short-pulse laser-plasma interactions.

''(2) START OF OPERATIONS.—The Secretary shall, subject to the availability of appropriations, ensure that the start of full operations of the facility described in paragraph (1) occurs before December 31, 2028.''; and

(8) in subsection (r) (as so redesignated)—

(A) by striking ''There'' and inserting ''Out of funds authorized to be appropriated for the Office of Science in a fiscal year, there''; and

(B) by striking paragraphs (3) through (5) and inserting the following:

''(3) $1,025,500,400 for fiscal year 2023;

''(4) $1,043,489,724 for fiscal year 2024;

''(5) $1,053,266,107 for fiscal year 2025;

''(6) $1,047,962,074 for fiscal year 2026; and

''(7) $1,114,187,798 for fiscal year 2027.''.

(b) ITER CONSTRUCTION.—Section 972(c)(3) of the Energy Policy Act of 2005 (42 U.S.C. 16312(c)(3)) is amended—

(1) in subparagraph (A), by striking ''and'' at the end; and

(2) by striking subparagraph (B) and inserting the following:

''(B) $379,700,000 for fiscal year 2023;

''(C) $419,250,000 for fiscal year 2024;

''(D) $415,000,000 for fiscal year 2025;

''(E) $370,500,000 for fiscal year 2026; and

''(F) $411,078,000 for fiscal year 2027.''.

SEC. 10106. HIGH ENERGY PHYSICS PROGRAM.

(a) PROGRAM.—Section 305 of the Department of Energy Research and Innovation Act (42 U.S.C. 18643) is amended—

(1) by redesignating subsections (b) through (d) as subsections (d) through (f), respectively; and

(2) by inserting after subsection (a) the following:

''(b) PROGRAM.—As part of the activities authorized under section 209 of the Department of Energy Organization Act (42 U.S.C. 7139), the Director shall carry out a research program in elementary particle physics and advanced technology research and development to improve the understanding of the fundamental properties of the universe, including constituents of matter and energy and the nature of space and time.

''(c) HIGH ENERGY FRONTIER RESEARCH.—As part of the program described in subsection (b), the Director shall carry out research using high energy accelerators and advanced detectors, including accelerators and detectors that will function as national user facilities, to create and study interactions of elementary particles and investigate fundamental forces.''.

(b) INTERNATIONAL COLLABORATION.—Section 305 of the Department of Energy Research and Innovation Act (42 U.S.C. 18643) is amended by striking subsection (d) (as redesignated by subsection (a)(1)) and inserting the following:

''(d) INTERNATIONAL COLLABORATION.—The Director shall—

''(1) as practicable and in coordination with other appropriate Federal agencies as necessary, ensure the access of United States researchers to the most advanced accelerator facilities and research capabilities in the world, including the Large Hadron Collider;

''(2) to the maximum extent practicable, continue to leverage United States participation in the Large Hadron Collider, and prioritize expanding international partnerships and investments in the Long-Baseline Neutrino Facility and Deep Underground Neutrino Experiment; and

''(3) to the maximum extent practicable, prioritize engagement in collaborative efforts in support of future international facilities that would provide access to the most advanced accelerator facilities in the world to United States researchers.''.

(c) COSMIC FRONTIER RESEARCH.—Section 305 of the Department of Energy Research and Innovation Act (42 U.S.C. 18645) is amended by striking subsection (f) (as redesignated by subsection (a)(1)) and inserting the following:

''(f) COSMIC FRONTIER RESEARCH.—The Director shall carry out research activities on the nature of the primary contents of the universe, including the nature of dark energy and dark matter. These activities shall, to the maximum extent practicable, be consistent with the research priorities identified by the High Energy Physics Advisory Panel or the National Academy of Sciences, and may include—

''(1) collaborations with the National Aeronautics and Space Administration, the National Science Foundation, or international partners on relevant projects; and

''(2) the development of space-based, land-based, water-based, and underground facilities and experiments.''.

(d) FURTHER ACTIVITIES.—Section 305 of the Department of Energy Research and Innovation Act (42 U.S.C. 18645) (as amended by subsection (c)), is amended by adding at the end the following:

''(g) FACILITY CONSTRUCTION AND MAJOR ITEMS OF EQUIPMENT.—

''(1) PROJECTS.—Consistent with the Office of Science's project management practices, the Director shall, to the maximum extent practicable, by incorporating the findings and recommendations of the 2014 Particle Physics Project Prioritization Panel (P5) report entitled 'Building for Discovery', support construction or fabrication of—

''(A) an international Long-Baseline Neutrino Facility based in the United States;

''(B) the Proton Improvement Plan II;

''(C) Second Generation Dark Matter experiments;

''(D) the Legacy Survey of Space and Time camera;

''(E) upgrades to detectors and other components of the Large Hadron Collider; and

''(F) the Cosmic Microwave Background Stage 4 project; and

''(G) other high priority projects recommended in the most recent report of the Particle Physics Project Prioritization Panel of the High Energy Physics Advisory Panel.

''(2) LONG-BASELINE NEUTRINO FACILITY.—

''(A) IN GENERAL.—The Secretary shall support construction of a Long-Baseline Neutrino Facility to facilitate the international Deep Underground Neutrino Experiment to examine the fundamental properties of neutrinos, explore physics beyond the Standard Model, and better clarify the existence and nature of antimatter.

''(B) FACILITY CAPABILITIES.—The Secretary shall ensure that the facility described in subparagraph (A) will provide, at a minimum, the following capabilities:

''(i) A neutrino beam with wideband capability of 1.2 megawatts of beam power and upgradable to 2.4 megawatts of beam power.

''(ii) 3 caverns excavated for a 70 kiloton fiducial detector mass and supporting surface buildings and utilities.

''(iii) Cryogenic systems to support neutrino detectors.

''(C) START OF OPERATIONS.—The Secretary shall, subject to the availability of appropriations, ensure that the start of full operations of the facility described in subparagraph (A) occurs before December 31, 2031.

''(D) FUNDING.—Out of funds authorized to be appropriated under subsection (k), there are authorized to be appropriated to the Secretary to carry out construction of the project described in subparagraph (A)—

''(i) $180,000,000 for fiscal year 2023;

''(ii) $255,000,000 for fiscal year 2024;

''(iii) $305,000,000 for fiscal year 2025;

''(iv) $305,000,000 for fiscal year 2026; and

''(v) $305,000,000 for fiscal year 2027.

''(3) PROTON IMPROVEMENT PLAN–II ACCELERATOR UPGRADE PROJECT.—

''(A) IN GENERAL.—The Secretary shall support construction of the Proton Improvement Plan II, an upgrade to the Fermilab accelerator complex identified in the 2014 Particle Physics Project Prioritization Panel (P5) report entitled 'Building for Discovery', to provide the world's most intense beam of neutrinos to the international Long Baseline Neutrino Facility and to carry out a broad range of future high energy physics experiments. The Secretary shall work with international partners to enable further significant contributions to the capabilities of that project.

''(B) FACILITY CAPABILITIES.—The Secretary shall ensure that the facility described in subparagraph (A) will provide, at a minimum, the following capabilities:

''(i) A state-of-the-art 800 megaelectron volt superconducting linear accelerator.

''(ii) Proton beam power of 1.2 megawatts at the start of LBNF/DUNE, upgradeable to 2.4 megawatts of beam power.

''(iii) A flexible design to enable high power beam delivery to multiple users simultaneously and customized beams tailored to specific scientific needs.

''(iv) Sustained high reliability operation of the Fermilab accelerator complex.

''(C) START OF OPERATIONS.—The Secretary shall, subject to the availability of appropriations, ensure that the start of full operations of the facility described in subparagraph (A) occurs before December 31, 2028.

''(D) FUNDING.—Out of funds authorized to be appropriated under subsection (k), there are authorized to be appropriated to the Secretary to carry out construction of the facility described in subparagraph (A)—

''(i) $130,000,000 for fiscal year 2023;

''(ii) $120,000,000 for fiscal year 2024;

''(iii) $120,000,000 for fiscal year 2025;

''(iv) $115,000,000 for fiscal year 2026; and

''(v) $110,000,000 for fiscal year 2027.

''(4) COSMIC MICROWAVE BACKGROUND STAGE 4.—

''(A) IN GENERAL.—The Secretary, in partnership with the Director of the National Science Foundation, shall support construction of the Cosmic Microwave Background Stage 4 project to survey the cosmic microwave background to test theories of cosmic inflation as described in the 2014 Particle Physics Prioritization Panel (P5) report entitled 'Building for Discovery: Strategic Plan for U.S. Particle Physics in the Global Context.'.

''(B) CONSULTATION.—The Secretary shall consult with the private sector, institutions of higher education, National Laboratories, and relevant Federal agencies to ensure that the project described in subparagraph (A) is capable of meeting Federal research needs in accessing the ultra-high energy physics of inflation and important neutrino properties.

''(C) EXPERIMENTAL CAPABILITIES.—The Secretary shall ensure to the maximum extent practicable that the facility described in subparagraph (A) will provide, at a minimum, 500,000 superconducting detectors deployed on an array of millimeter-wave telescopes with the required range in frequency, sensitivity, and survey speed that will provide sufficient capability to enable an order of magnitude advance in observations of the Cosmic Microwave Background, delivering transformative discoveries in fundamental physics, cosmology, and astrophysics.

''(D) START OF OPERATIONS.—The Secretary shall, subject to the availability of appropriations, ensure that the start of full operations of the facility described in subparagraph (A) occurs before December 31, 2030.

''(E) FUNDING.—Out of funds authorized to be appropriated under subsection (k), there are authorized to be appropriated to the Secretary to carry out construction of the facility described in subparagraph (A)—

''(i) $10,000,000 for fiscal year 2023;

''(ii) $25,000,000 for fiscal year 2024;

''(iii) $60,000,000 for fiscal year 2025;

''(iv) $80,000,000 for fiscal year 2026; and

''(v) $80,000,000 for fiscal year 2027.

''(h) ACCELERATOR AND DETECTOR UPGRADES.—The Director shall upgrade accelerator facilities and detectors, as necessary and appropriate, to increase beam power, sustain high reliability, and improve precision measurement to advance the highest priority particle physics research programs. In carrying out facility upgrades, the Director shall continue to work with international partners, when appropriate and in the United States' interest, to leverage investments and expertise in critical technologies to help build and upgrade accelerator and detector facilities in the United States.

''(i) ACCELERATOR AND DETECTOR RESEARCH AND DEVELOPMENT.—As part of the program described in subsection (b), the Director shall carry out research and development in particle beam physics, accelerator science and technology, and particle and radiation detection with relevance to the specific needs of the High Energy Physics program, in coordination with the Accelerator Research and Development program authorized under section 310.

''(j) UNDERGROUND SCIENCE.—The Director shall—

''(1) support an underground science program consistent with the missions of the Department and the scientific needs of the High Energy Physics program, including those articulated in the most recent report of the Particle Physics Project Prioritization Panel of the High Energy Physics Advisory Panel, that leverages the capabilities of relevant underground science and engineering facilities;

''(2) carry out a competitive grant program to award scientists and engineers at institutions of higher education, nonprofit institutions, and National Laboratories to conduct research in underground science and engineering; and

''(3) submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report on the inventory of underground mines in the United States that may be suitable for future development of underground science and engineering facilities and any anticipated challenges associated with repurposing, repair, facility siting, or construction.

''(k) AUTHORIZATION OF APPROPRIATIONS.—Out of funds authorized to be appropriated for the Office of Science in a fiscal year, there are authorized to be appropriated to the Secretary to carry out the activities described in this section—

''(1) $1,159,520,000 for fiscal year 2023;

''(2) $1,289,891,200 for fiscal year 2024;

''(3) $1,428,284,672 for fiscal year 2025;

''(4) $1,499,881,752 for fiscal year 2026; and

''(5) $1,554,874,657 for fiscal year 2027.''.

SEC. 10107. NUCLEAR PHYSICS PROGRAM.

Section 308 of the Department of Energy Research and Innovation Act (Public Law 115–246; 132 Stat. 3150) is amended to read as follows:

''SEC. 308. NUCLEAR PHYSICS.

''(a) PROGRAM.—As part of the activities authorized under section 209 of the Department of Energy Organization Act (42 U.S.C. 7139), the Director shall carry out a research program, and support relevant facilities, to discover and understand various forms of nuclear matter.

''(b) ELECTRON ION COLLIDER.—

''(1) IN GENERAL.—The Secretary shall support construction of an Electron Ion Collider as described in the 2015 Long Range Plan of the Nuclear Science Advisory Committee and the report from the National Academies of Science, Engineering, and Medicine entitled 'An Assessment of U.S.-Based Electron-Ion Collider Science', in order to measure the internal structure of the proton and the nucleus and answer fundamental questions about the nature of visible matter.

''(2) FACILITY CAPABILITY.—The Secretary shall ensure that the facility described in paragraph (1) meets the requirements in the 2015 Long Range Plan described in that paragraph, including—

''(A) at least 70 percent polarized beams of electrons and light ions;

''(B) ion beams from deuterium to the heaviest stable nuclei;

''(C) variable center of mass energy from 20 to 140 GeV;

''(D) high collision luminosity of $10^{33–34} cm^{-2} s^{-1}$; and

''(E) the possibility of more than 1 interaction region.

''(3) START OF OPERATIONS.—The Secretary shall, subject to the availability of appropriations, ensure that the start of full operations of the facility under this subsection occurs before December 31, 2030.

''(4) FUNDING.—Out of funds authorized to be appropriated under subsection (c), there are authorized to be appropriated to the Secretary to carry out construction of the facility under this subsection—

''(A) $90,000,000 for fiscal year 2023;

''(B) $181,000,000 for fiscal year 2024;

''(C) $219,000,000 for fiscal year 2025;

''(D) $297,000,000 for fiscal year 2026; and

''(E) $301,000,000 for fiscal year 2027.

''(c) AUTHORIZATION OF APPROPRIATIONS.—Out of funds authorized to be appropriated for the Office of Science in a fiscal year, there are authorized to be appropriated to the Secretary to carry out the activities described in this section—

''(1) $840,480,000 for fiscal year 2023;

''(2) $976,508,800 for fiscal year 2024;

''(3) $1,062,239,328 for fiscal year 2025;

''(4) $1,190,833,688 for fiscal year 2026; and

''(5) $1,248,463,709 for fiscal year 2027.''.

SEC. 10108. SCIENCE LABORATORIES INFRASTRUCTURE PROGRAM.

Section 309 of the Department of Energy Research and Innovation Act (42 U.S.C. 18647) is amended by adding at the end the following:

''(c) APPROACH.—In carrying out the program under subsection (a), the Director shall use all available approaches and mechanisms, as the Secretary determines to be appropriate, including—

''(1) capital line items;

''(2) minor construction projects;

''(3) energy savings performance contracts;

''(4) utility energy service contracts;

''(5) alternative financing; and

''(6) expense funding.

''(d) SUBMISSION TO CONGRESS.—For each fiscal year through fiscal year 2027, at the same time as the annual budget submission of the President, the Secretary shall submit to the Committee on Appropriations and the Committee on Energy and Natural Resources of the Senate and the Committee on Appropriations and the Committee on Science, Space, and Technology of the House of Representatives a list of projects for which the Secretary will provide funding under this section, including a description of each project and the funding profile for the project.

''(e) AUTHORIZATION OF APPROPRIATIONS.—Out of funds authorized to be appropriated for the Office of Science in a fiscal year, there is authorized to be appropriated to the Secretary to carry out the activities described in this section $550,000,000 for each of fiscal years 2023 through 2027.''.

SEC. 10109. ACCELERATOR RESEARCH AND DEVELOPMENT.

The Department of Energy Research and Innovation Act (42 U.S.C. 18601 et seq.) is amended by adding at the end the following:

''SEC. 310. ACCELERATOR RESEARCH AND DEVELOPMENT.

''(a) PROGRAM.—As part of the activities authorized under section 209 of the Department of Energy Organization Act (42 U.S.C. 7139), the Director shall carry out a research program—

''(1) to advance accelerator science and technology relevant to the Department, other Federal agencies, and United States industry;

''(2) to foster partnerships to develop, demonstrate, and enable the commercial application of accelerator technologies;

''(3) to support the development of a skilled, diverse, and inclusive accelerator workforce; and

''(4) to provide access to accelerator design and engineering resources.

''(b) ACCELERATOR RESEARCH.—In carrying out the program authorized under subsection (a), the Director shall support—

''(1) research activities in cross-cutting accelerator technologies including superconducting magnets and accelerators, beam physics, data analytics-based accelerator controls, simulation software, new particle sources, advanced laser technology, and transformative research; and

''(2) optimal operation of the Accelerator Test Facility.

''(c) ACCELERATOR DEVELOPMENT.—In carrying out the program authorized under subsection (a), the Director shall support partnerships to foster the development, demonstration,

and commercial application of accelerator technologies, including advanced superconducting wire and cable, superconducting RF cavities, and high efficiency radiofrequency power sources for accelerators.

''(d) RESEARCH COLLABORATIONS.—In developing accelerator technologies under the program authorized under subsection (a), the Director shall—

''(1) consider the requirements necessary to support translational research and development for medical, industrial, security, and defense applications; and

''(2) leverage investments in accelerator technologies and fundamental research in particle physics by partnering with institutions of higher education, industry, and other Federal agencies to enable the commercial application of advanced accelerator technologies.

''(e) AUTHORIZATION OF APPROPRIATIONS.—Out of funds authorized to be appropriated for the Office of Science in a fiscal year, there are authorized to be appropriated to the Secretary to carry out the activities described in this section—

''(1) $19,080,000 for fiscal year 2023;

''(2) $20,224,800 for fiscal year 2024;

''(3) $21,438,288 for fiscal year 2025;

''(4) $22,724,585 for fiscal year 2026; and

''(5) $24,088,060 for fiscal year 2027.''.

SEC. 10110. ISOTOPE RESEARCH, DEVELOPMENT, AND PRODUCTION.

(a) IN GENERAL.—The Department of Energy Research and Innovation Act (42 U.S.C. 18601 et seq.) is amended by adding after section 310 (as added by section 10109) the following:

''SEC. 311. ISOTOPE RESEARCH, DEVELOPMENT, AND PRODUCTION.

''(a) DEFINITION OF CRITICAL RADIOACTIVE AND STABLE ISOTOPE.—

''(1) IN GENERAL.—In this section, the term 'critical radioactive and stable isotope' means a radioactive and stable isotope—

''(A) the domestic commercial production of which is unavailable or inadequate to satisfy the demand of research, medical, industrial, or related industries in the United States; and

''(B) the supply of which is augmented through—

''(i) Department production; or

''(ii) foreign suppliers.

''(2) EXCLUSION.—In this section, the term 'critical radioactive and stable isotope' does not include the medical isotope molybdenum-99, the production and supply of which is addressed in the American Medical Isotopes Production Act of 2012 (Public Law 112–239; 126 Stat. 2211) (including the amendments made by that Act).

''(b) PROGRAM.—The Director shall—

''(1) carry out, in coordination with other relevant programs across the Department, a program—

''(A) for the production of critical radioactive and stable isotopes, including the development of techniques to produce isotopes, that the Secretary determines are needed and of sufficient quality and quantity for research, medical, industrial, or related purposes;

''(B) for the production of critical radioactive and stable isotopes that are in short supply or projected to be in short supply in the future, including byproducts, surplus materials, and related isotope services;

''(C) to maintain and enhance the infrastructure required to produce and supply critical radioactive and stable isotope products and related services;

''(D) to conduct research and development on new and improved isotope production and processing techniques that can make critical radioactive and stable isotopes available for research and application as soon as possible while assisting in workforce development;

''(E) to reduce domestic dependency on the foreign supply of critical radioactive and stable isotopes to ensure national preparedness; and

''(F) to the maximum extent practicable, in accordance with—

''(i) evidence-based reports, such as the 2015 report of the Nuclear Science Advisory Committee entitled 'Meeting Isotope Needs and Capturing Opportunities for the Future'; and

''(ii) assessments of isotope supply chains, including the assessment described in paragraph (3), any reports submitted pursuant to subsection (d), and other current and future assessments;

''(2) ensure that isotope production activities carried out under this subsection are consistent with the statement of policy entitled 'Policies and Procedures for Transfer of Commercial Radioisotope Production and Distribution to Private Industry' (30 Fed. Reg. 3247 (March 9, 1965));

''(3) assess the domestic requirements of current and emerging critical radioactive and stable isotopes and associated applications, including by consulting end-users, to identify areas that may require Federal investment for expedited development of domestic production capacity for those isotopes, including through public-private partnerships, as appropriate;

''(4) ensure that actions taken by the Department do not interfere with, delay, compete with, or otherwise adversely affect efforts by the private sector to make available or otherwise facilitate the supply of critical radioactive and stable isotopes, including efforts under existing agreements between the Department or contractors of the Department and the private sector; and

''(5) in coordination with the Assistant Secretary for Nuclear Energy, assess options for demonstrating the production of critical radioactive and stable isotopes in research, test, or commercial nuclear reactors and accelerators, including reactors and accelerators operated at universities.

''(c) ADVISORY COMMITTEE.—

''(1) IN GENERAL.—Not later than 90 days after the date of enactment of this section, the Secretary shall establish an advisory committee (referred to in this subsection as the 'committee') in alignment with the program established under subsection (b)—

''(A) to carry out the activities previously executed as part of the Isotope Subcommittee of the Nuclear Science Advisory Committee; and

''(B) to provide expert advice and assistance to the Director in carrying out that program.

''(2) REPORT.—

''(A) IN GENERAL.—Not later than 1 year after the committee is established, the committee shall—

''(i) update the 2015 Nuclear Science Advisory Committee Isotopes Subcommittee Report entitled 'Meeting Isotope Needs and Capturing Opportunities for the Future'; and

''(ii) periodically update that report thereafter as needed.

''(B) INCLUSIONS.—An updated report under subparagraph (A) shall include an assessment of—

''(i) current demand in the United States for critical radioactive and stable isotopes;

''(ii) the impact of continued reliance on foreign supply of critical radioactive and stable isotopes;

''(iii) proposed mitigation strategies, including increasing domestic production sources for critical radioactive and stable isotopes, that—

''(I) are not commercially available; or

''(II) are commercially produced in quantities that are not sufficient—

''(aa) to satisfy domestic demand; and

''(bb) to minimize production constraints and supply disruptions to the United States healthcare and industrial isotope industries;

''(iv) current facilities, including upgrades to those facilities, and new facilities needed to meet domestic critical isotope needs; and

''(v) workforce development needs.

''(3) NONDUPLICATION.—The committee shall work in alignment with, and shall not duplicate the efforts of, preexisting advisory committees that are advising the program established under subsection (b).

''(4) FACA.—The committee shall be subject to the Federal Advisory Committee Act (5 U.S.C. App.).

''(d) REPORT.—

''(1) IN GENERAL.—Not later than the end of the first fiscal year beginning after the date of enactment of this section, and biennially thereafter, the Secretary of Energy Advisory Board shall submit to the Committees on Energy and Natural Resources and Environment and Public Works of the Senate and the Committees on Science, Space, and Technology and Energy and Commerce of the House of Representatives a report describing the progress made under the program established under subsection (b) during the preceding 2 fiscal years.

''(2) INCLUSIONS.—Each report under paragraph (1) shall include—

''(A) an updated assessment of any critical radioactive and stable isotope shortages in the United States;

''(B) a description of—

''(i) any disruptions in the international supply of critical radioactive and stable isotopes during the preceding 2 fiscal years; and

''(ii) the impact of those disruptions on related activities; and

''(C)(i) a projection of anticipated disruptions in the international supply, or supply constraints, of critical radioactive and stable isotopes during the next 2 fiscal years; and

''(ii) the anticipated impact of those disruptions or constraints, as applicable, on related domestic activities.

''(e) AUTHORIZATION OF APPROPRIATIONS.—Out of funds authorized to be appropriated for the Office of Science in a fiscal year, there are authorized to be appropriated to the Secretary to carry out this section—

''(1) $175,708,000 for fiscal year 2023;

''(2) $196,056,480 for fiscal year 2024;

''(3) $215,759,869 for fiscal year 2025;

''(4) $200,633,461 for fiscal year 2026; and

''(5) $146,293,469 for fiscal year 2027.''.

(b) DEMONSTRATION OF ISOTOPE PRODUCTION.—Section 952(a) of the Energy Policy Act of 2005 (42 U.S.C. 16272(a)) is amended—

(1) by redesignating paragraph (2) as paragraph (4) and moving the paragraph so as to appear after paragraph (3); and

(2) by inserting after paragraph (1) the following:

''(2) ISOTOPE DEMONSTRATION EVALUATION.—

''(A) IN GENERAL.—Not later than 1 year after the date of enactment of the Research and Development, Competition, and Innovation Act, the Secretary, acting through the Assistant Secretary for Nuclear Energy, shall evaluate the technical and economic feasibility of the establishment of an isotope demonstration subprogram of the program established under paragraph (1) to support the development and commercial demonstration of critical radioactive and stable isotope production in existing commercial nuclear power plants.

''(B) CONSULTATION.—The Secretary, acting through the Assistant Secretary for Nuclear Energy, shall consult with the Director of the Office of Science in carrying out the evaluation under subparagraph (A).

''(C) DEFINITION OF CRITICAL RADIOACTIVE AND STABLE ISOTOPE.—In this paragraph, the term 'critical radioactive and stable isotope' has the meaning given the term in section 311(a) of the Department of Energy Research and Innovation Act.''.

(c) RADIOISOTOPE PROCESSING FACILITY.—

(1) IN GENERAL.—The Secretary of Energy (referred to in this subsection as ''the Secretary'') shall construct a radioisotope processing facility to provide for the growing radiochemical processing capability needs associated with the production of critical radioactive isotopes authorized under section 311 of the Department of Energy Research and Innovation Act.

(2) FUNDING.—Out of funds authorized to be appropriated under section 311(e) of the Department of Energy Research and Innovation Act,

there are authorized to be appropriated to the Secretary to carry out this subsection—

(A) $30,500,000 for fiscal year 2023;

(B) $75,000,000 for fiscal year 2024;

(C) $105,000,000 for fiscal year 2025;

(D) $83,000,000 for fiscal year 2026; and

(E) $43,000,000 for fiscal year 2027.

(d) STABLE ISOTOPE PRODUCTION AND RESEARCH CENTER.—

(1) IN GENERAL.—The Secretary of Energy (referred to in this subsection as ''the Secretary'') shall establish a stable isotope production and research center—

(A) to expand the ability of the United States to perform multiple stable isotope production campaigns at large-scale production, as authorized under section 311 of the Department of Energy Research and Innovation Act;

(B) to mitigate the dependence of the United States on foreign-produced stable isotopes;

(C) to promote economic resilience; and

(D) to conduct research and development on stable isotope production and associated methods and technology.

(2) FUNDING.—Out of funds authorized to be appropriated under section 311(e) of the Department of Energy Research and Innovation Act, there are authorized to be appropriated to the Secretary to carry out this subsection—

(A) $74,400,000 for fiscal year 2023;

(B) $46,000,000 for fiscal year 2024;

(C) $31,200,000 for fiscal year 2025;

(D) $33,300,000 for fiscal year 2026; and

(E) $13,900,000 for fiscal year 2027.

SEC. 10111. INCREASED COLLABORATION WITH TEACHERS AND SCIENTISTS.

(a) IN GENERAL.—The Department of Energy Research and Innovation Act (42 U.S.C. 18601 et seq.) is amended by adding after section 311 (as added by section 10110), the following:

''SEC. 312. INCREASED COLLABORATION WITH TEACHERS AND SCIENTISTS.

''The Director shall support the development of a scientific workforce through programs that facilitate collaboration between and among teachers at elementary schools and secondary schools served by local educational agencies, students at institutions of higher education, early-career researchers, faculty at institutions of higher education, and the National Laboratories, including through the use of proven techniques to expand the number of individuals from underrepresented groups pursuing and attaining skills or undergraduate and graduate degrees relevant to the mission of the Office of Science.''.

(b) AUTHORIZATION OF APPROPRIATIONS.—Section 3169 of the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381e) is amended—

(1) by striking ''There are'' and inserting ''Out of funds authorized to be appropriated for the Office of Science of the Department of Energy in a fiscal year, there are''; and

(2) by striking ''fiscal year 1991'' and inserting ''each of fiscal years 2023 through 2027''.

(c) BROADENING PARTICIPATION IN WORKFORCE DEVELOPMENT FOR TEACHERS AND SCIENTISTS.—

(1) IN GENERAL.—The Department of Energy Science Education Enhancement Act is amended by inserting after section 3167 (42 U.S.C. 7381c–1) the following:

''SEC. 3167A. BROADENING PARTICIPATION FOR TEACHERS AND SCIENTISTS.

''(a) IN GENERAL.—The Secretary shall—

''(1) expand opportunities to increase the number of highly skilled science, technology, engineering, and mathematics (STEM) professionals working in disciplines relevant to the mission of the Department; and

''(2) broaden the recruitment pool to increase participation from Historically Black Colleges or Universities (as defined in section 3167B(f)), Hispanic-serving institutions (as defined in that section), Tribal Colleges or Universities (as defined in that section), minority-serving institutions (as defined in that section), institutions in eligible jurisdictions (as defined in that section), emerging research institutions, community colleges, and scientific societies in those disciplines.

''(b) PLAN.—Not later than 1 year after the date of enactment of the Research and Development, Competition, and Innovation Act, the Secretary shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committees on Energy and Natural Resources and Commerce, Science, and Transportation of the Senate and make available to the public a plan for broadening participation of underrepresented groups in science, technology, engineering, and mathematics in programs supported by the Department, including—

''(1) a plan for supporting relevant Federal research award grantees and leveraging the National Science Foundation INCLUDES National Network and relevant partnerships, including partnerships maintained by other Federal research agencies;

''(2) metrics for assessing the participation of underrepresented groups in programs supported by the Department;

''(3) experienced and potential barriers to broadening participation of underrepresented groups in programs supported by the Department, including recommended solutions; and

''(4) any other activities the Secretary determines appropriate.

''(c) AUTHORIZATION OF APPROPRIATIONS.—Of the amounts authorized to be appropriated under section 3169, not less than $2,000,000 is authorized to be appropriated each fiscal year for the activities described in this section.

''SEC. 3167B. EXPANDING OPPORTUNITIES FOR HIGHLY SKILLED SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS (STEM) PROFESSIONALS.

''(a) IN GENERAL.—The Secretary shall—

''(1) expand opportunities and increase the number of highly skilled science, technology, engineering, and mathematics (STEM) professionals working in disciplines relevant to the mission of the Department; and

''(2) broaden the recruitment pool to increase participation from and expand partnerships with Historically Black Colleges or Universities, Hispanic serving institutions, Tribal Colleges or Universities, minority-serving institutions, institutions in eligible jurisdictions, emerging research institutions, community colleges, and scientific societies in those disciplines.

''(b) PLAN AND OUTREACH STRATEGY.—

''(1) PLAN.—

''(A) IN GENERAL.—Not later than 180 days after the date of enactment of the Research and Development, Competition, and Innovation Act, the Secretary shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a 10-year educational plan to fund and expand new or existing programs administered by the Office of Science and sited at the National Laboratories and Department user facilities to expand educational and workforce development opportunities for underrepresented individuals, including—

''(i) high school, undergraduate, and graduate students; and

''(ii) recent graduates, teachers, and faculty in STEM fields.

''(B) CONTENTS.—The plan under subparagraph (A) may include paid internships, fellowships, temporary employment, training programs, visiting student and faculty programs, sabbaticals, and research support.

''(2) OUTREACH CAPACITY.—The Secretary shall include in the plan under paragraph (1) an outreach strategy to improve the advertising, recruitment, and promotion of educational and workforce development programs to community colleges, Historically Black Colleges or Universities, Hispanic-serving institutions, Tribal Colleges or Universities, minority-serving institutions, institutions in eligible jurisdictions, and emerging research institutions.

''(c) BUILDING RESEARCH CAPACITY.—

''(1) IN GENERAL.—The Secretary shall develop programs that strengthen the research capacity relevant to Office of Science disciplines at emerging research institutions, including minority-serving institutions, Tribal Colleges or Universities, Historically Black Colleges or Universities, institutions in eligible jurisdictions (as defined in section 2203(b)(3)(A) of the Energy Policy Act of 1992 (42 U.S.C. 13503(b)(3)(A))), institutions in communities with dislocated workers who were previously employed in manufacturing, energy production, including coal power plants, and mineral and material mining, and other institutions of higher education.

''(2) INCLUSIONS.—The programs developed under paragraph (1) may include—

''(A) enabling mutually beneficial and jointly managed partnerships between research-intensive institutions and emerging research institutions; and

''(B) soliciting research proposals, fellowships, training programs, and research support directly from emerging research institutions.

''(d) TRAINEESHIPS.—

''(1) IN GENERAL.—The Secretary shall establish a university-led Traineeship Program to address workforce development needs in STEM fields relevant to the Department.

''(2) FOCUS.—The focus of the Traineeship Program established under paragraph (1) shall be on—

''(A) supporting workforce development and research experiences for underrepresented undergraduate and graduate students; and

''(B) increasing participation from underrepresented populations.

''(3) INCLUSION.—The traineeships under the Traineeship Program established under paragraph (1) shall include opportunities to build the next-generation workforce in research areas critical to maintaining core competencies across the programs of the Office of Science.

''(e) EVALUATION.—

''(1) IN GENERAL.—The Secretary shall establish key performance indicators to measure and monitor progress of education and workforce programs and expand Departmental activities for data collection and analysis.

''(2) REPORT.—Not later than 2 years after the date of enactment of the Research and Development, Competition, and Innovation Act, and every 2 years thereafter, the Secretary shall submit to the Committee on Science, Space, and Technology and the Committee on Education and Labor of the House of Representatives and the Committee on Energy and Natural Resources and the Committee on Health, Education, Labor, and Pensions of the Senate a report summarizing progress toward meeting the key performance indicators established under paragraph (1).

''(f) DEFINITIONS.—In this section:

''(1) COMMUNITY COLLEGE.—The term 'community college' means—

''(A) a public institution of higher education, including additional locations, at which the highest awarded degree, or the predominantly awarded degree, is an associate degree; or

''(B) any Tribal college or university.

''(2) DISLOCATED WORKER.—The term 'dislocated worker' has the meaning given the term in section 3 of the Workforce Innovation and Opportunity Act (29 U.S.C. 3102).

''(3) HISPANIC-SERVING INSTITUTION.—The term 'Hispanic-serving institution' has the meaning given the term in section 502(a) of the Higher Education Act of 1965 (20 U.S.C. 1101a(a)).

''(4) HISTORICALLY BLACK COLLEGE OR UNIVERSITY.—The term 'Historically Black College or University' has the meaning given the term 'part B institution' in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061).

''(5) INSTITUTION IN AN ELIGIBLE JURISDICTION.—The term 'institution in an eligible jurisdiction' means an institution of higher education (as defined in section 101 of the Higher

Education Act of 1965 (20 U.S.C. 1001)) that is located in an eligible jurisdiction (as defined in section 2203(b)(3)(A) of the Energy Policy Act of 1992 (42 U.S.C. 13503(b)(3)(A))).

''(6) MINORITY-SERVING INSTITUTION.—The term 'minority-serving institution' includes the entities described in any of paragraphs (1) through (7) of section 371(a) of the Higher Education Act of 1965 (20 U.S.C. 1067q(a)).

''(7) STEM.—The term 'STEM' means the subjects listed in section 2 of the STEM Education Act of 2015 (42 U.S.C. 6621 note; Public Law 114–59).

''(8) TRIBAL COLLEGE OR UNIVERSITY.—The term 'Tribal College or University' has the meaning given the term in section 316(b) of the Higher Education Act of 1965 (20 U.S.C. 1059c(b)).''.

(2) CLERICAL AMENDMENT.—The table of contents in section 2(b) of the National Defense Authorization Act for Fiscal Year 1991 (Public Law 101–510; 104 Stat. 1497) is amended by striking the items relating to sections 3167 and 3168 and inserting the following:

''Sec. 3167. Partnerships with historically Black colleges and universities, Hispanic-serving institutions, and tribal colleges.
''Sec. 3167A. Broadening participation for teachers and scientists.
''Sec. 3167B. Expanding opportunities for highly skilled science, technology, engineering, and mathematics (STEM) professionals.
''Sec. 3168. Definitions.
''Sec. 3169. Authorization of appropriations.''.

SEC. 10112. HIGH INTENSITY LASER RESEARCH INITIATIVE; HELIUM CONSERVATION PROGRAM; OFFICE OF SCIENCE EMERGING BIOLOGICAL THREAT PREPAREDNESS RESEARCH INITIATIVE; MIDSCALE INSTRUMENTATION AND RESEARCH EQUIPMENT PROGRAM; AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL.—The Department of Energy Research and Innovation Act (42 U.S.C. 18601 et seq.) (as amended by section 10111(a)) is amended by adding at the end the following:

''SEC. 313. HIGH INTENSITY LASER RESEARCH INITIATIVE.

''(a) IN GENERAL.—The Director shall establish a high intensity laser research initiative consistent with the recommendations of the National Academies report entitled 'Opportunities in Intense Ultrafast Lasers: Reaching for the Brightest Light' and the report from the Brightest Light Initiative workshop entitled 'The Future of Intense Ultrafast Lasers in the U.S.'. The initiative should include research and development of petawatt-scale and of high average power laser technologies necessary for future facility needs in discovery science and to advance energy technologies, as well as support for a user network of academic and National Laboratory high intensity laser facilities.

''(b) LEVERAGE.—The Director shall leverage new laser technologies for more compact, less complex, and low-cost accelerator systems needed for science applications.

''(c) COORDINATION.—

''(1) DIRECTOR.—The Director shall coordinate the initiative established under subsection (a) among all relevant programs within the Office of Science.

''(2) UNDER SECRETARY.—The Under Secretary for Science shall coordinate the initiative established under subsection (a) with other relevant programs within the Department and other Federal agencies.

''(d) AUTHORIZATION OF APPROPRIATIONS.—Out of funds authorized to be appropriated for the Office of Science in a fiscal year, there are authorized to be appropriated to the Secretary to carry out the activities described in this section—

''(1) $50,000,000 for fiscal year 2023;
''(2) $100,000,000 for fiscal year 2024;
''(3) $150,000,000 for fiscal year 2025;
''(4) $200,000,000 for fiscal year 2026; and
''(5) $250,000,000 for fiscal year 2027.

''SEC. 314. HELIUM CONSERVATION PROGRAM.

''(a) IN GENERAL.—The Secretary shall establish a program to reduce the consumption of helium for Department grant recipients and facilities and encourage helium recycling and reuse. The program shall competitively award grants for—

''(1) the purchase of equipment to capture, reuse, and recycle helium;

''(2) the installation, maintenance, and repair of new and existing helium capture, reuse, and recycling equipment; and

''(3) helium alternatives research and development activities.

''(b) REPORT.—Not later than 2 years after the date of enactment of the Research and Development, Competition, and Innovation Act, and every 3 years thereafter, the Director shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report on the purchase of helium as part of research projects and facilities supported by the Department. The report shall include—

''(1) the quantity of helium purchased for projects and facilities supported by Department grants;

''(2) a cost-analysis for such helium;

''(3) to the maximum extent practicable, information on whether such helium was imported from outside the United States, and if available, the country or region of the world from which the helium was imported;

''(4) expected or experienced impacts of helium supply shortages or prices on the research projects and facilities supported by the Department; and

''(5) recommendations for reducing Department grant recipients' exposure to volatile helium prices and supply shortages.

''(c) COORDINATION.—In carrying out the program under this section, the Director shall coordinate with the National Science Foundation and other relevant Federal agencies on helium conservation activities.

''(d) DURATION.—The program established under this section shall receive support for a period of not more than 5 years, subject to the availability of appropriations.

''(e) RENEWAL.—Upon expiration of any period of support of the program under this section, the Director may renew support for the program for a period of not more than 5 years.

''SEC. 315. OFFICE OF SCIENCE BIOLOGICAL THREAT PREPAREDNESS RESEARCH INITIATIVE.

''(a) IN GENERAL.—The Secretary shall establish within the Office of Science a cross-cutting research initiative, to be known as the 'Biological Threat Preparedness Research Initiative', to leverage the innovative analytical resources and tools, user facilities, and advanced computational and networking capabilities of the Department in order to support efforts that prevent, prepare for, predict, and respond to biological threats to national security, including infectious diseases.

''(b) COMPETITIVE, MERIT-REVIEWED PROCESS.—The Secretary shall carry out the initiative established under subsection (a) through a competitive, merit-reviewed process, and consider applications from National Laboratories, institutions of higher education, multi-institutional collaborations, industry partners and other appropriate entities.

''(c) ACTIVITIES.—In carrying out the initiative established under subsection (a), the Secretary shall—

''(1) determine a comprehensive set of technical milestones for the research activities described in that subsection;

''(2) prioritize the objectives of—

''(A) supporting fundamental research and development in advanced analytics, experimental studies, materials synthesis, and high-performance computing technologies needed in order to more quickly and effectively characterize, model, simulate, and predict complex natural phenomena and biological materials related to emerging biological threats;

''(B) supporting the development of tools that inform epidemiological modeling, and applying artificial intelligence, machine learning, and other computing tools to accelerate such processes;

''(C) supporting research and capabilities that enhance understanding and modeling of the transport of pathogens in indoor and outdoor air and water environments;

''(D) identifying priority research opportunities and capabilities for molecular design and modeling for medical countermeasures;

''(E) ensuring that new experimental and computational tools are accessible to relevant research communities, including private sector entities and other Federal research institutions; and

''(F) supporting activities and projects that combine computational modeling and simulation with experimental research facilities and studies;

''(3) leverage the research infrastructure of the Department, including scientific computing user facilities, x-ray light sources, neutron scattering facilities, nanoscale science research centers, and sequencing and biocharacterization facilities;

''(4) leverage experience from existing modeling and simulation research and work sponsored by the Department and promote collaboration and data sharing between National Laboratories, research entities, and user facilities of the Department by providing necessary access and secure data transfer capabilities; and

''(5) ensure that new experimental and computational tools are accessible to relevant research communities, including private sector entities, to address emerging biological threats.

''(d) COORDINATION.—In carrying out the initiative established under subsection (a), the Secretary shall coordinate activities with—

''(1) other relevant offices of the Department;
''(2) the National Nuclear Security Administration;
''(3) the National Laboratories;
''(4) the Director of the National Science Foundation;
''(5) the Director of the Centers for Disease Control and Prevention;
''(6) the Director of the National Institutes of Health;
''(7) the Assistant Secretary for Preparedness and Response;
''(8) the heads of other relevant Federal agencies;
''(9) institutions of higher education; and
''(10) the private sector.

''(e) INFECTIOUS DISEASES HIGH PERFORMANCE COMPUTING RESEARCH CONSORTIUM.—

''(1) IN GENERAL.—The Secretary, in coordination with the Director of the National Science Foundation and the Director of the Office of Science and Technology Policy, shall establish and operate an Emerging Infectious Diseases High Performance Computing Research Consortium (referred to in this section as the 'Consortium'), to support the initiative established under subsection (a) by providing, to the extent practicable, a centralized entity for multidisciplinary, collaborative, emerging infectious disease and biosecurity research and development through high performance computing and advanced data analytics technologies and processes, in conjunction with the experimental research facilities and studies supported by the Department.

''(2) MEMBERSHIP.—The members of the Consortium may include representatives from relevant Federal agencies, the National Laboratories, the private sector, and institutions of higher education, which can each contribute relevant compute time, capabilities, or other resources.

''(3) ACTIVITIES.—The Consortium shall—

''(A) match applicants with available Federal and private sector computing resources;

''(B) consider supplemental awards for computing partnerships with Consortium members to qualifying entities on a competitive merit-review basis;

''(C) encourage collaboration and communication among member representatives of the Consortium and awardees;

''(D) provide access to the high-performance computing capabilities, expertise, and user facilities of the Department and the National Laboratories; and

''(E) submit an annual report to the Secretary summarizing the activities of the Consortium, including—

''(i) describing each project undertaken by the Consortium;

''(ii) detailing organizational expenditures; and

''(iii) evaluating contributions to the achievement of technical milestones as determined in subsection (a).

''(4) COORDINATION.—The Secretary shall ensure the coordination of, and avoid unnecessary duplication of, the activities of the Consortium with the activities of other research entities of the Department, other Federal research institutions, institutions of higher education, and the private sector.

''(f) REPORT.—Not later than 2 years after the date of enactment of the Research and Development, Competition, and Innovation Act, the Secretary shall submit to the Committee on Science, Space, and Technology and the Committee on Energy and Commerce of the House of Representatives, and the Committee on Energy and Natural Resources, the Committee on Commerce, Science, and Transportation, and the Committee on Health, Education, Labor, and Pensions of the Senate, a report detailing the effectiveness of—

''(1) the interagency coordination among each Federal agency involved in the initiative established under subsection (a);

''(2) the collaborative research achievements of that initiative, including the achievement of the technical milestones determined under that subsection; and

''(3) potential opportunities to expand the technical capabilities of the Department.

''(g) FUNDING.—Out of funds authorized to be appropriated for the Office of Science in a fiscal year, there is authorized to be appropriated to the Secretary to carry out the activities under this section $50,000,000 for each of fiscal years 2023 through 2027.

''SEC. 316. MIDSCALE INSTRUMENTATION AND RESEARCH EQUIPMENT PROGRAM.

''(a) IN GENERAL.—The Director shall establish a midscale instrumentation and research equipment program to develop, acquire, and commercialize research instrumentation and equipment needed to meet the missions of the Department and to provide platform technologies for the broader scientific community.

''(b) ACTIVITIES.—Under the program established under subsection (a), the Director shall—

''(1) enable the development and acquisition of novel, state-of-the-art instruments that—

''(A) range in cost from $1,000,000 to $20,000,000 each; and

''(B) would significantly accelerate scientific breakthroughs at user facilities; and

''(2) strongly encourage partnerships among—

''(A) National Laboratories;

''(B) user facilities; and

''(C)(i) institutions in a State receiving funding under the Established Program to Stimulate Competitive Research established under section 2203(b)(3) of the Energy Policy Act of 1992 (42 U.S.C. 13503(b)(3));

''(ii) historically Black colleges or universities;

''(iii) minority-serving institutions of higher education; or

''(iv) institutions of higher education in a rural area.

''(c) COORDINATION WITH OTHER PROGRAMS.—The Director shall coordinate the program established under subsection (a) with all other programs carried out by the Office of Science of the Department.

''(d) RESEARCH EQUIPMENT AND TECHNOLOGY DEVELOPMENT COORDINATION.—The Director shall encourage coordination among the Office of Science, the National Laboratories, the Office of Technology Transitions, and relevant academic and private sector entities to identify, disseminate, and commercialize research instruments, equipment, and related technologies developed to aid basic science research discoveries that meet the mission of the Department.

''(e) AUTHORIZATION OF APPROPRIATIONS.—Out of funds authorized to be appropriated for the Office of Science in a fiscal year, there is authorized to be appropriated to carry out this section $150,000,000 for each of fiscals years 2023 through 2027.

''SEC. 317. AUTHORIZATION OF APPROPRIATIONS.

''There are authorized to be appropriated to the Secretary to carry out the activities described in this title—

''(1) $8,902,392,400 for fiscal year 2023;

''(2) $9,541,895,744 for fiscal year 2024;

''(3) $10,068,198,994 for fiscal year 2025;

''(4) $10,468,916,520 for fiscal year 2026; and

''(5) $10,831,342,317 for fiscal year 2027.''.

(b) TABLE OF CONTENTS.—Section 1(b) of the Department of Energy Research and Innovation Act is amended in the table of contents by inserting after the item relating to section 309 the following:

''Sec. 310. Accelerator research and development.
''Sec. 311. Isotope research, development, and production.
''Sec. 312. Increased collaboration with teachers and scientists.
''Sec. 313. High intensity laser research initiative.
''Sec. 314. Helium conservation program.
''Sec. 315. Office of Science Biological Threat Preparedness Research Initiative.
''Sec. 316. Midscale instrumentation and research equipment program.
''Sec. 317. Authorization of appropriations.''.

SEC. 10113. ESTABLISHED PROGRAM TO STIMULATE COMPETITIVE RESEARCH.

(a) RESEARCH AREAS.—Section 2203(b)(3)(E) of the Energy Policy Act of 1992 (42 U.S.C. 13503(b)(3)(E)) is amended—

(1) in the subparagraph heading, by striking ''IN AREAS OF APPLIED ENERGY RESEARCH, ENVIRONMENTAL MANAGEMENT, AND BASIC SCIENCE'';

(2) in clause (i)—

(A) in subclause (I), by inserting ''nuclear energy,'' before ''and''; and

(B) by striking subclause (V) and inserting the following:

''(V) scientific research, including—

''(aa) advanced scientific computing research;

''(bb) basic energy sciences;

''(cc) biological and environmental research;

''(dd) fusion energy sciences;

''(ee) high energy physics;

''(ff) nuclear physics;

''(gg) isotope research, development, and production;

''(hh) accelerator research, development, and production; and

''(ii) other areas of research funded by the Office of Science, as determined by the Secretary.''; and

(3) in clause (ii)—

(A) in subclause (II), by striking ''graduate'' and inserting ''undergraduate scholarships, graduate fellowships, and'';

(B) in subclause (III), by striking ''; and'' and inserting ''and staff;'';

(C) in subclause (IV)—

(i) by striking ''biennial'' and inserting ''annual''; and

(ii) by striking the period at the end and inserting a semicolon; and

(D) by adding at the end the following:

''(V) to develop research clusters for particular areas of expertise; and

''(VI) to diversify the future workforce.''.

(b) RESEARCH CAPABILITY ENHANCEMENT.—Section 2203(b)(3) of the Energy Policy Act of 1992 (42 U.S.C. 13503(b)(3)) is amended by striking subparagraph (F) and inserting the following:

''(F) RESEARCH CAPABILITY ENHANCEMENT.—

''(i) SCHOLARSHIPS AND FELLOWSHIPS.—

''(I) IN GENERAL.—Pursuant to subparagraph (E)(ii), the Secretary shall award grants to institutions of higher education in eligible jurisdictions for those institutions of higher education to provide scholarships and fellowships.

''(II) GRANT.—A scholarship or fellowship awarded by an institution of higher education in an eligible jurisdiction using a grant provided under subclause (I)—

''(aa) in the case of an undergraduate scholarship—

''(AA) shall be for a period of 1 year; and

''(BB) may be competitively renewable on an annual basis; and

''(bb) in the case of a graduate level fellowship, shall be for a period of not more than 5 years.

''(ii) EARLY CAREER CAPACITY DEVELOPMENT.—

''(I) IN GENERAL.—Pursuant to subparagraph (E)(ii), the Secretary shall award grants to early career faculty and staff at institutions of higher education in eligible jurisdictions—

''(aa) to support investigator-initiated research, including associated research equipment and instrumentation;

''(bb) to support activities associated with identifying and responding to funding opportunities;

''(cc) to secure technical assistance for the pursuit of funding opportunities; and

''(dd) to develop and enhance collaboration among National Laboratories, Department of Energy programs, the private sector, and other relevant entities.

''(II) GRANTS.—A grant awarded under subclause (I) shall be—

''(aa) for a period of not more than 5 years; and

''(bb) competitively renewable for an additional 5-year period.

''(iii) RESEARCH CAPACITY DEVELOPMENT.—

''(I) IN GENERAL.—Pursuant to subparagraph (E)(ii), the Secretary shall award competitive grants to institutions of higher education in eligible jurisdictions for research capacity development and implementation, including—

''(aa) developing expertise in key technology areas, including associated equipment and instrumentation;

''(bb) developing and acquiring novel, state-of-the-art instruments and equipment that range in cost from $500,000 to $20,000,000;

''(cc) enhancing collaboration with National Laboratories, the Department of Energy, and the private sector through faculty or staff placement programs; and

''(dd) supporting formal partnership programs with institutions of higher education and National Laboratories.

''(II) GRANTS.—A grant awarded under subclause (I) shall be—

''(aa) for a period of not more than 5 years; and

''(bb) renewable for an additional 5-year period.

''(III) EQUIPMENT AND INSTRUMENTATION.—To the maximum extent practicable, the Secretary shall ensure that research equipment and instrumentation developed or acquired pursuant to a grant awarded under subclause (I) may sustain continued operation and be maintained without the need for additional or subsequent funding under this section.''.

(c) PROGRAM IMPLEMENTATION UPDATE.—Section 2203(b)(3)(G) of the Energy Policy Act of 1992 (42 U.S.C. 13503(b)(3)(G)) is amended by adding at the end the following:

''(iii) UPDATE.—Not later than 270 days after the date of enactment of the Research and Development, Competition, and Innovation Act, the Secretary shall—

''(I) update the plan submitted under clause (i); and

''(II) submit the updated plan to the committees described in that clause.''.

(d) PROGRAM EVALUATION REPORT.—Section 2203(b)(3)(H) of the Energy Policy Act of 1992 (42 U.S.C. 13503(b)(3)(H)) is amended by adding at the end the following:

''(iv) ANNUAL REPORT.—At the end of each fiscal year, the Secretary shall submit to the Committee on Energy and Natural Resources and the Committee on Appropriations of the Senate and the Committee on Energy and Commerce and the Committee on Appropriations of the House of Representatives a report that includes—

''(I) the total amount of expenditures made by the Department to carry out EPSCoR in each eligible jurisdiction for each of the 3 most recent fiscal years for which such information is available;

''(II)(aa) the number of EPSCoR awards made to institutions of higher education located in eligible jurisdictions; and

''(bb) the amount and type of each award;

''(III) the number of awards that are not EPSCoR awards made by the Secretary to institutions of higher education located in eligible jurisdictions;

''(IV)(aa) the number of representatives of institutions of higher education in eligible jurisdictions serving on each Office of Science advisory committee; and

''(bb) for each such advisory committee, the percentage of committee membership that those individuals constitute; and

''(V) the number of individuals from institutions of higher education in eligible jurisdictions serving on peer review committees.''.

(e) FUNDING.—Section 2203(b)(3) of the Energy Policy Act of 1992 (42 U.S.C. 13503(b)(3)) is amended by adding at the end the following:

''(I) FUNDING.—

''(i) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out EPSCoR, to remain available until expended—

''(I) $50,000,000 for fiscal year 2023;

''(II) $50,000,000 for fiscal year 2024;

''(III) $75,000,000 for fiscal year 2025;

''(IV) $100,000,000 for fiscal year 2026; and

''(V) $100,000,000 for fiscal year 2027.

''(ii) GRANTS TO CONSORTIA.—In the case of an EPSCoR grant awarded to a consortium that contains institutions of higher education that are not located in eligible jurisdictions, the Secretary may count—

''(I) the full amount of funds expended to provide the grant towards meeting the funding requirement in clause (iii) if the lead entity of the consortium is an institution of higher education located in an eligible jurisdiction; and

''(II) only the funds provided to institutions of higher education located in eligible jurisdictions towards meeting the funding requirement in clause (iii) if the lead entity of the consortium is an institution of higher education that is not located in an eligible jurisdiction.

''(iii) ADDITIONAL FUNDS FOR ELIGIBLE JURISDICTIONS.—In addition to funds authorized to be appropriated under clause (i), the Secretary, to the maximum extent practicable while maintaining the competitive, merit-based award processes of the Office of Science, shall ensure that, of the research and development funds of the Office of Science that are awarded by the Secretary each year to institutions of higher education, not less than 10 percent is awarded to institutions of higher education in eligible jurisdictions pursuant to the evaluation and selection criteria in section 605.10 of title 10, Code of Federal Regulations (or successor regulations).

''(iv) ADDITIONAL FUNDS FOR EQUIPMENT AND INSTRUMENTATION.—In addition to funds authorized to be appropriated under clause (i), there is authorized to be appropriated to the Secretary to award grants under subparagraph (F)(iii)(I) for the purpose described in item (bb) of that subparagraph $25,000,000 for each of fiscal years 2023 through 2027, to remain available until expended.

''(v) ACCOUNTING.—To the maximum extent practicable, the Secretary shall ensure that each program within the Department of Energy that endorses an EPSCoR grant awardee shall contribute funding to the award to acknowledge the research benefits to the mission of that program.''.

(f) ADVISORY COMMITTEES TO THE OFFICE OF SCIENCE.—In order to improve the advice and guidance provided to the Office of Science, the Undersecretary for Science shall seek to ensure, to the maximum extent practicable, the robust participation of institutions of higher education (as defined in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001)) located in eligible jurisdictions (as defined in section 2203(b)(3)(A) of the Energy Policy Act of 1992 (42 U.S.C. 13503(b)(3)(A))) on the Office of Science Federal Advisory Committee.

(g) TECHNICAL AMENDMENTS.—Section 2203(b) of the Energy Policy Act of 1992 (42 U.S.C. 13503(b)) is amended—

(1) in paragraph (1), by striking ''(1) The Secretary'' and inserting the following:

''(1) UNIVERSITY RESEARCH REACTORS.—The Secretary''; and

(2) in paragraph (2), by striking ''(2) The Secretary'' and inserting the following:

''(2) METHOD TO EVALUATE EFFECTIVENESS OF EDUCATION PROGRAMS.—The Secretary''.

SEC. 10114. RESEARCH SECURITY.

(a) DEFINITIONS.—In this section:

(1) COUNTRY OF RISK.—

(A) IN GENERAL.—The term ''country of risk'' means a foreign country determined by the Secretary, in accordance with subparagraph (B), to present a risk of theft of United States intellectual property or a threat to the national security of the United States if nationals of the country, or entities owned or controlled by the country or nationals of the country, participate in any research, development, demonstration, or deployment activity authorized under this division or division A or an amendment made by this division or division A.

(B) DETERMINATION.—In making a determination under subparagraph (A), the Secretary, in coordination with the Director of the Office of Intelligence and Counterintelligence, shall take into consideration—

(i) the most recent World Wide Threat Assessment of the United States Intelligence Community, prepared by the Director of National Intelligence; and

(ii) the most recent National Counterintelligence Strategy of the United States.

(2) COVERED SUPPORT.—The term ''covered support'' means any grant, contract, subcontract, award, loan, program, support, or other activity authorized under this division or division A, or an amendment made by this division or division A.

(3) ENTITY OF CONCERN.—The term ''entity of concern'' means any entity, including a national, that is—

(A) identified under section 1237(b) of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 (50 U.S.C. 1701 note; Public Law 105–261);

(B) identified under section 1260H of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (10 U.S.C. 113 note; Public Law 116–283);

(C) on the Entity List maintained by the Bureau of Industry and Security of the Department of Commerce and set forth in Supplement No. 4 to part 744 of title 15, Code of Federal Regulations;

(D) included in the list required by section 9(b)(3) of the Uyghur Human Rights Policy Act of 2020 (Public Law 116–145; 134 Stat. 656); or

(E) identified by the Secretary, in coordination with the Director of the Office of Intelligence and Counterintelligence and the applicable office that would provide, or is providing, covered support, as posing an unmanageable threat—

(i) to the national security of the United States; or

(ii) of theft or loss of United States intellectual property.

(4) NATIONAL.—The term ''national'' has the meaning given the term in section 101 of the Immigration and Nationality Act (8 U.S.C. 1101).

(5) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(b) SCIENCE AND TECHNOLOGY RISK ASSESSMENT.—

(1) IN GENERAL.—The Secretary shall develop and maintain tools and processes to manage and mitigate research security risks, such as a science and technology risk matrix, informed by threats identified by the Director of the Office of Intelligence and Counterintelligence, to facilitate determinations of the risk of loss of United States intellectual property or threat to the national security of the United States posed by activities carried out under any covered support.

(2) CONTENT AND IMPLEMENTATION.—In developing and using the tools and processes developed under paragraph (1), the Secretary shall—

(A) deploy risk-based approaches to evaluating, awarding, and managing certain research, development, demonstration, and deployment activities, including designations that will indicate the relative risk of activities;

(B) assess, to the extent practicable, ongoing high-risk activities;

(C) designate an officer or employee of the Department of Energy to be responsible for tracking and notifying recipients of any covered support of unmanageable threats to United States national security or of theft or loss of United States intellectual property posed by an entity of concern;

(D) consider requiring recipients of covered support to implement additional research security mitigations for higher-risk activities if appropriate; and

(E) support the development of research security training for recipients of covered support on the risks posed by entities of concern.

(3) ANNUAL UPDATES.—The tools and processes developed under paragraph (1) shall be evaluated annually and updated as needed, with threat-informed input from the Office of Intelligence and Counterintelligence, to reflect changes in the risk designation under paragraph (2)(A) of research, development, demonstration, and deployment activities conducted by the Department.

(c) ENTITY OF CONCERN.—

(1) PROHIBITION.—Except as provided in paragraph (2), no entity of concern, or individual that owns or controls, is owned or controlled by, or is under common ownership or control with an entity of concern, may receive, or perform work under, any covered support.

(2) WAIVER OF PROHIBITION.—

(A) IN GENERAL.—The Secretary may waive the prohibition under paragraph (1) if determined by the Secretary to be in the national interest.

(B) NOTIFICATION TO CONGRESS.—Not less than 2 weeks prior to issuing a waiver under subparagraph (A), the Secretary shall notify the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of the House of Representatives of the intent to issue the waiver, including a justification for the waiver.

(3) PENALTY.—

(A) TERMINATION OF SUPPORT.—On finding that any entity of concern or individual described in paragraph (1) has received covered support and has not received a waiver under paragraph (2), the Secretary shall terminate all covered support to that entity of concern or individual, as applicable.

(B) PENALTIES.—An entity of concern or individual identified under subparagraph (A) shall be—

(i) prohibited from receiving or participating in covered support for a period of not less than 1 year but not more than 10 years, as determined by the Secretary; or

(ii) instead of the penalty described in clause (i), subject to any other penalties authorized under applicable law or regulations that the Secretary determines to be in the national interest.

(C) NOTIFICATION TO CONGRESS.—Prior to imposing a penalty under subparagraph (B), the Secretary shall notify the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of the House of Representatives of the intent to impose the penalty, including a description of and justification for the penalty.

(4) COORDINATION.—The Secretary shall—

(A) share information about the unmanageable threats described in subsection (a)(3)(E) with other Federal agencies; and

(B) develop consistent approaches to identifying entities of concern.

(d) INTERNATIONAL AGREEMENTS.—This section shall be applied in a manner consistent with the obligations of the United States under international agreements.

(e) REPORT REQUIRED.—Not later than 240 days after the date of enactment of this Act, the Secretary shall submit to Congress a report that—

(1) describes—

(A) the tools and processes developed under subsection (b)(1) and any updates to those tools and processes; and

(B) if applicable, the science and technology risk matrix developed under that subsection and how that matrix has been applied;

(2) includes a mitigation plan for managing risks posed by countries of risk with respect to future or ongoing research and development activities of the Department of Energy; and

(3) defines critical research areas, designated by risk, as determined by the Secretary.

TITLE II—NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY FOR THE FUTURE

SEC. 10201. DEFINITIONS.

In this title:

(1) DIRECTOR.—The term ''Director'' means the Director of the National Institute of Standards and Technology.

(2) ENROLLMENT OF NEEDY STUDENTS.—The term ''enrollment of needy students'' has the meaning given the term in section 312(d) of the Higher Education Act of 1965 (20 U.S.C. 1058(d)).

(3) FRAMEWORK.—The term ''Framework'' means the Framework for Improving Critical Infrastructure Cybersecurity developed by the National Institute of Standards and Technology and referred to in Executive Order No. 13800 issued on May 11, 2017 (82 Fed. Reg. 22391 et seq.).

(4) INSTITUTE.—The term ''Institute'' means the National Institute of Standards and Technology.

(5) INTERNATIONAL STANDARDS ORGANIZATION.—The term ''international standards organization'' has the meaning given such term in section 451 of the Trade Agreements Act of 1979 (19 U.S.C. 2571).

(6) SECRETARY.—The term ''Secretary'' means the Secretary of Commerce.

Subtitle A—Authorization of Appropriations

SEC. 10211. AUTHORIZATION OF APPROPRIATIONS.

(a) FISCAL YEAR 2023.—

(1) IN GENERAL.—There are authorized to be appropriated to the Secretary of Commerce $1,551,450,000 for the National Institute of Standards and Technology for fiscal year 2023.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized by paragraph (1)—

(A) $979,100,000 is authorized for scientific and technical research and services laboratory activities;

(B) $200,000,000 is authorized for the construction and maintenance of facilities, of which $80,000,000 is authorized to be appropriated for Safety, Capacity, Maintenance, and Major Repairs; and

(C) $372,350,000 is authorized for industrial technology services activities, of which $275,300,000 is authorized to be appropriated for the Manufacturing Extension Partnership program under sections 25, 25A, and 26 of the National Institute of Standards and Technology Act (15 U.S.C. 278k, 278k-1, and 278l) (of which $31,000,000 is authorized to establish the National Supply Chain Database under section 10253) and $97,050,000 is authorized to be appropriated for the Manufacturing USA Program under section 34 of the National Institute of Standards and Technology Act (15 U.S.C. 278s).

(b) FISCAL YEAR 2024.—

(1) IN GENERAL.—There are authorized to be appropriated to the Secretary of Commerce $1,651,600,000 for the National Institute of Standards and Technology for fiscal year 2024.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized by paragraph (1)—

(A) $1,047,600,000 is authorized for scientific and technical research and services laboratory activities;

(B) $200,000,000 is authorized for the construction and maintenance of facilities, of which $80,000,000 is authorized to be appropriated for Safety, Capacity, Maintenance, and Major Repairs, including $20,000,000 for IT infrastructure; and

(C) $404,000,000 is authorized for industrial technology services activities, of which $300,000,000 is authorized to be appropriated for the Manufacturing Extension Partnership program under sections 25, 25A, and 26 of the National Institute of Standards and Technology Act (15 U.S.C. 278k, 278k-1, and 278l) (of which $26,000,000 is authorized to maintain, update, and support Federal coordination of State supply chain databases maintained by the Centers (as such term is defined in such section 25 of such Act)) and $104,000,000 is authorized to be appropriated for the Manufacturing USA Program under section 34 of the National Institute of Standards and Technology Act (15 U.S.C. 278s).

(c) FISCAL YEAR 2025.—

(1) IN GENERAL.—There are authorized to be appropriated to the Secretary of Commerce $2,039,900,000 for the National Institute of Standards and Technology for fiscal year 2025.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized by paragraph (1)—

(A) $1,120,900,000 is authorized for scientific and technical research and services laboratory activities;

(B) $200,000,000 is authorized for the construction and maintenance of facilities, of which $80,000,000 is authorized to be appropriated for Safety, Capacity, Maintenance, and Major Repairs, including $20,000,000 for IT infrastructure; and

(C) $719,000,000 is authorized for industrial technology services activities, of which $550,000,000 is authorized to be appropriated for the Manufacturing Extension Partnership program under sections 25, 25A, and 26 of the National Institute of Standards and Technology Act (15 U.S.C. 278k, 278k-1, and 278l) (of which $26,000,000 is authorized to maintain, update, and support Federal coordination of State supply chain databases maintained by the Centers (as such term is defined in such section 25 of such Act)) and $169,000,000 is authorized to be appropriated for the Manufacturing USA Program under section 34 of the National Institute of Standards and Technology Act (15 U.S.C. 278s).

(d) FISCAL YEAR 2026.—

(1) IN GENERAL.—There are authorized to be appropriated to the Secretary of Commerce $2,158,400,000 for the National Institute of Standards and Technology for fiscal year 2026.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized by paragraph (1)—

(A) $1,199,400,000 is authorized for scientific and technical research and services laboratory activities;

(B) $200,000,000 is authorized for the construction and maintenance of facilities, of which $80,000,000 is authorized to be appropriated for Safety, Capacity, Maintenance, and Major Repairs, including $20,000,000 for IT infrastructure; and

(C) $759,000,000 is authorized for industrial technology services activities, of which $550,000,000 is authorized to be appropriated for the Manufacturing Extension Partnership program under sections 25, 25A, and 26 of the National Institute of Standards and Technology Act (15 U.S.C. 278k, 278k-1, and 278l) (of which $26,000,000 is authorized to maintain, update, and support Federal coordination of State supply chain databases maintained by the Centers (as such term is defined in such section 25 of such Act)) and $209,000,000 is authorized to be appropriated for the Manufacturing USA Program under section 34 of the National Institute of Standards and Technology Act (15 U.S.C. 278s).

(e) FISCAL YEAR 2027.—

(1) IN GENERAL.—There are authorized to be appropriated to the Secretary of Commerce $2,283,360,000 for the National Institute of Standards and Technology for fiscal year 2027.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized by paragraph (1)—

(A) $1,283,360,000 is authorized for scientific and technical research and services laboratory activities;

(B) $200,000,000 is authorized for the construction and maintenance of facilities, of which $80,000,000 is authorized to be appropriated for Safety, Capacity, Maintenance, and Major Repairs, including $20,000,000 for IT infrastructure; and

(C) $800,000,000 is authorized for industrial technology services activities, of which $550,000,000 is authorized to be appropriated for the Manufacturing Extension Partnership program under sections 25, 25A, and 26 of the National Institute of Standards and Technology Act (15 U.S.C. 278k, 278k-1, and 23 278l) (of which $26,000,000 is authorized to maintain, update, and support Federal coordination of State supply chain databases maintained by the Centers (as such term is defined in such section 25 of such Act)) and $250,000,000 is authorized to be appropriated for the Manufacturing USA Program under section 34 of the National Institute of Standards and Technology Act (15 U.S.C. 278s).

Subtitle B—Measurement Research

SEC. 10221. ENGINEERING BIOLOGY AND BIOMETROLOGY.

(a) IN GENERAL.—The Director, in coordination with the National Engineering Biology Research and Development Initiative established pursuant to title IV, shall—

(1) support basic measurement science and technology research for engineering biology, biomanufacturing, and biometrology to advance—

(A) measurement technologies to support foundational understanding of the mechanisms of conversion of DNA information into cellular function;

(B) technologies for measurement of such biomolecular components and related systems;

(C) new data tools, techniques, and processes to improve engineering biology, biomanufacturing, and biometrology research; and

(D) other areas of measurement science and technology research determined by the Director to be critical to the development and deployment of engineering biology, biomanufacturing and biometrology;

(2) support activities to inform and expand the development of measurements infrastructure

needed to develop technical standards to establish interoperability and facilitate commercial development of biomolecular measurement technology and engineering biology applications;

(3) convene industry, institutions of higher education, nonprofit organizations, Federal laboratories, and other Federal agencies engaged in engineering biology research and development to develop coordinated technical roadmaps for authoritative measurement of the molecular components of the cell;

(4) provide access to user facilities with advanced or unique equipment, services, materials, and other resources to industry, institutions of higher education, nonprofit organizations, and government agencies to perform research and testing;

(5) establish or expand collaborative partnerships or consortia with other Federal agencies engaged in engineering biology research and development, institutions of higher education, Federal laboratories, and industry to advance engineering biology applications; and

(6) support graduate and postgraduate research and training in biometrology, biomanufacturing, and engineering biology.

(b) RULE OF CONSTRUCTION.—Nothing in this section may be construed to alter the policies, processes, or practices of individual Federal agencies in effect on the day before the date of the enactment of this Act relating to the conduct or support of biomedical research and advanced development, including the solicitation and review of extramural research proposals.

(c) CONTROLS.—In carrying out activities authorized by this section, the Secretary shall ensure proper security controls are in place to protect sensitive information, as appropriate.

SEC. 10222. GREENHOUSE GAS MEASUREMENT RESEARCH.

(a) IN GENERAL.—The Director, in consultation with the Administrator of the National Oceanic and Atmospheric Administration, the Administrator of the Environmental Protection Agency, the National Aeronautics and Space Administration, the Director of the National Science Foundation, the Secretary of Energy, and the heads of other Federal agencies, as appropriate, shall carry out a measurement research program to inform the development or improvement of best practices, benchmarks, methodologies, procedures, and technical standards for the measurement of greenhouse gas emissions and to assess and improve the performance of greenhouse gas emissions measurement systems placed in situ and on space-based platforms.

(b) ACTIVITIES.—In carrying out such a program, the Director may—

(1) conduct research and testing to improve the accuracy, efficacy, and reliability of the measurement of greenhouse gas emissions at a range of scales that covers direct measurement at the component or process level through atmospheric observations;

(2) conduct research to create novel measurement technologies and techniques for the measurement of greenhouse gas emissions;

(3) convene and engage with relevant Federal agencies and stakeholders to establish common definitions and characterizations for the measurement of greenhouse gas emissions, taking into account any existing United States and international technical standards and guidance;

(4) conduct outreach and coordination to share technical expertise with relevant industry and nonindustry stakeholders and standards development organizations to—

(A) assist such entities in the development and adoption of best practices and technical standards for greenhouse gas emissions measurements; and

(B) promote consistency and traceability in international reference standards and central calibration laboratories;

(5) in coordination with the Administrator of the National Oceanic and Atmospheric Administration, the Administrator of the Environmental Protection Agency, and the Secretary of Energy, develop such standard reference materials as the Director determines is necessary to further the development of such technical standards, taking into account any existing United States or international standards;

(6) coordinate with the National Oceanic and Atmospheric Administration to ensure data are managed, stewarded, and archived at all levels and promote full and open exchange at Federal and State levels, and with academia, industry, and other users; and

(7) coordinate with international partners, including international standards organizations, to maintain global greenhouse gas measurement technical standards.

(c) TESTBEDS.—In coordination with the private sector, institutions of higher education, State and local governments, the National Oceanic and Atmospheric Administration, the Environmental Protection Agency, the Department of Energy, and other Federal agencies, as appropriate, the Director may continue to develop and manage testbeds to advance research and standards development for greenhouse gas emissions measurements from in situ and space-based platforms.

(d) CENTER FOR GREENHOUSE GAS MEASUREMENTS, STANDARDS, AND INFORMATION.—

(1) IN GENERAL.—The Director, in collaboration with the Administrator of the National Oceanic and Atmospheric Administration, the Administrator of the Environmental Protection Agency, and the heads of other Federal agencies, as appropriate, shall establish a Center for Greenhouse Gas Measurements, Standards, and Information (in this subsection referred to as the ''Center'').

(2) COLLABORATIONS.—The Director shall require that the activities of the Center include collaboration among public and private organizations, including institutions of higher education, nonprofit organizations, private sector entities, and State, Tribal, territorial, and local officials.

(3) PURPOSE.—The purpose of the Center shall be to—

(A) advance measurement science, data analytics, and modeling at a range of scales that covers direct measurement and estimation at the component or process level through atmospheric observations and at the analysis level to improve the accuracy of spatially and temporally resolved greenhouse gas emissions measurement, validation, and attribution to specific underlying activities and processes;

(B) test and evaluate the performance of existing capabilities, and inform and improve best practices, benchmarks, methodologies, procedures, and technical standards, for the measurement and validation of greenhouse gas emissions at scales noted in subparagraph (A);

(C) educate and train students in measurement science, computational science, and systems engineering research relevant to greenhouse gas emissions measurements;

(D) foster collaboration among academic researchers, private sector stakeholders, and State, Tribal, territorial, and local officials in the use of Institute testbeds as described in subsection (c);

(E) conduct activities with research institutions, industry partners, and State and local officials to identify research, testing, and technical standards needs relevant to greenhouse gas emissions; and

(F) collaborate with other Federal agencies to conduct outreach and coordination to share and promote technical data, tools, and expertise with relevant public and private sector stakeholders, including State, Tribal, territorial, and local officials, to assist such in the accurate measurement of greenhouse gas emissions.

SEC. 10223. NIST AUTHORITY FOR CYBERSECURITY AND PRIVACY ACTIVITIES.

Subsection (c) of section 2 of the National Institute of Standards and Technology Act (15 U.S.C. 272) is amended—

(1) in paragraph (16), by striking the period at the end and inserting a semicolon;

(2) by redesignating paragraphs (16) through (27) as paragraphs (21) through (32), respectively; and

(3) by inserting after paragraph (15) the following:

''(16) support information security measures for the development and lifecycle of software and the software supply chain, including development of voluntary, consensus-based technical standards, best practices, frameworks, methodologies, procedures, processes, and software engineering toolkits and configurations;

''(17) support information security measures, including voluntary, consensus-based technical standards, best practices, and guidelines, for the design, adoption, and deployment of cloud computing services;

''(18) support research, development, and practical application to improve the usability of cybersecurity processes and technologies;

''(19) facilitate and support the development of a voluntary, consensus-based set of technical standards, guidelines, best practices, methodologies, procedures, and processes to improve privacy protections in systems, technologies, and processes used by both the public and private sector;

''(20) support privacy measures, including voluntary, consensus-based technical standards, best practices, guidelines, metrology, and testbeds for the design, adoption, and deployment of privacy enhancing technologies;''.

SEC. 10224. SOFTWARE SECURITY AND AUTHENTICATION.

(a) VULNERABILITIES IN OPEN SOURCE SOFTWARE.—The Director shall assign severity metrics to identified vulnerabilities with open source software and produce voluntary guidance to assist the entities that maintain open source software repositories to discover and mitigate vulnerabilities.

(b) ARTIFICIAL INTELLIGENCE-ENABLED DEFENSES.—The Director shall carry out research and testing to improve the effectiveness of artificial intelligence-enabled cybersecurity, including by generating optimized data sets to train artificial intelligence defense systems and evaluating the performance of varying network architectures at strengthening network security.

(c) AUTHENTICATION OF INSTITUTE SOFTWARE.—The Director shall ensure all software released by the Institute is digitally signed and maintained to enable stakeholders to verify its authenticity and integrity upon installation and execution.

(d) ASSISTANCE TO INSPECTORS GENERAL.—Subject to available funding, the Director shall provide technical assistance to improve the education and training of individual Federal agency Inspectors General and staff who are responsible for the annual independent evaluation they are required to perform of the information security program and practices of Federal agencies under section 3555 of title 44, United States Code.

(e) SOFTWARE SUPPLY CHAIN SECURITY PRACTICES.—

(1) IN GENERAL.—The Director shall, in coordination with industry, academia, and other Federal agencies, as appropriate, develop a set of security outcomes and practices, including security controls, control enhancements, supplemental guidance, or other supporting information to enable software developers and operators to identify, assess, and manage cybersecurity risks over the full lifecycle of software products.

(2) OUTREACH.—The Director shall conduct outreach and coordination activities to share technical expertise with Federal agencies, relevant industry stakeholders, and standards development organizations, as appropriate, to encourage the voluntary adoption of the software lifecycle security practices by Federal agencies and industry stakeholders.

SEC. 10225. DIGITAL IDENTITY MANAGEMENT RESEARCH.

Section 504 of the Cybersecurity Enhancement Act of 2014 (15 U.S.C. 7464) is amended to read as follows:

''SEC. 504. IDENTITY MANAGEMENT RESEARCH AND DEVELOPMENT.

''(a) IN GENERAL.—The Director shall carry out a program of research to support the development of voluntary, consensus-based technical standards, best practices, benchmarks, methodologies, metrology, testbeds, and conformance criteria for identity management, taking into account appropriate user concerns to—

''(1) improve interoperability and portability among identity management technologies;

''(2) strengthen identity proofing and verification methods used in identity management systems commensurate with the level of risk, including identity and attribute validation services provided by Federal, State, and local governments;

''(3) improve privacy protection in identity management systems; and

''(4) improve the accuracy, usability, and inclusivity of identity management systems.

''(b) DIGITAL IDENTITY TECHNICAL ROADMAP.—The Director, in consultation with other relevant Federal agencies and stakeholders from the private sector, shall develop and maintain a technical roadmap for digital identity management research and development focused on enabling the voluntary use and adoption of modern digital identity solutions that align with the four criteria in subsection (a).

''(c) DIGITAL IDENTITY MANAGEMENT GUIDANCE.—

''(1) IN GENERAL.—The Director shall develop, and periodically update, in collaboration with other public and private sector organizations, common definitions and voluntary guidance for digital identity management systems, including identity and attribute validation services provided by Federal, State, and local governments.

''(2) GUIDANCE.—The Guidance shall—

''(A) align with the four criteria in subsection (a), as practicable;

''(B) provide case studies of implementation of guidance;

''(C) incorporate voluntary technical standards and industry best practices; and

''(D) not prescribe or otherwise require the use of specific technology products or services.

''(3) CONSULTATION.—In carrying out this subsection, the Director shall consult with—

''(A) Federal and State agencies;

''(B) industry;

''(C) potential end-users and individuals that will use services related to digital identity verification; and

''(D) experts with relevant experience in the systems that enable digital identity verification, as determined by the Director.''.

SEC. 10226. BIOMETRICS RESEARCH AND TESTING.

(a) IN GENERAL.—The Secretary, acting through the Director, shall establish a program to support measurement research to inform the development of best practices, benchmarks, methodologies, procedures, and voluntary, consensus-based technical standards for biometric identification systems, including facial recognition systems, to assess and improve the performance of such systems. In carrying out such program, the Director may—

(1) conduct measurement research to support efforts to improve the performance of biometric identification systems, including in areas related to conformity assessment, image quality and interoperability, contactless biometric capture technologies, and human-in-the-loop biometric identification systems and processes;

(2) convene and engage with relevant stakeholders to establish common definitions and characterizations for biometric identification systems, which may include accuracy, fairness, bias, privacy, consent, and other properties, taking into account definitions in relevant international technical standards and other publications;

(3) carry out measurement research and testing on a range of biometric modalities, such as fingerprints, voice, iris, face, vein, behavioral biometrics, genetics, multimodal biometrics, and emerging applications of biometric identification technology;

(4) study the use of privacy-enhancing technologies and other technical protective controls to facilitate access, as appropriate, to public data sets for biometric research;

(5) conduct outreach and coordination to share technical expertise with relevant industry and nonindustry stakeholders and standards development organizations to assist such entities in the development of best practices and voluntary technical standards; and

(6) develop such standard reference artifacts as the Director determines is necessary to further the development of such voluntary technical standards.

(b) BIOMETRICS TEST PROGRAM.—

(1) IN GENERAL.—The Secretary, acting through the Director, shall carry out a test program to provide biometrics vendors the opportunity to test biometric identification technologies across a range of modalities.

(2) ACTIVITIES.—In carrying out the program under this subsection, the Director shall—

(A) conduct research and regular testing to improve and benchmark the accuracy, efficacy, and bias of biometric identification technologies, which may include research and testing on demographic variations, capture devices, presentation attack detection, partially occluded or computer generated images, privacy and security designs and controls, template protection, de-identification, and comparison of algorithm, human, and combined algorithm-human recognition capability;

(B) develop an approach for testing software and cloud-based biometrics applications, including remote systems, in Institute test facilities;

(C) establish reference use cases for biometric identification technologies and performance criteria for assessing each use case, including accuracy, efficacy, and bias metrics;

(D) produce public-facing reports of the findings from such testing for a general audience;

(E) develop policies and procedures accounting for the legal and social implications of activities under this paragraph when working with a foreign entity of concern (as such term is defined in section 10612);

(F) establish procedures to prioritize testing of biometrics identification technologies developed by entities headquartered in the United States; and

(G) conduct such other activities as determined necessary by the Director.

(c) GAO REPORT TO CONGRESS.—Not later than 18 months after the date of the enactment of this Act, the Comptroller General of the United States shall submit a detailed report to Congress on the impact of biometric identification technologies on historically marginalized communities, including low-income communities and minority religious, racial, and ethnic groups. Such report should be made publicly available on an internet website.

SEC. 10227. FEDERAL BIOMETRIC PERFORMANCE STANDARDS.

Subsection (b) of section 20 of the National Institute of Standards and Technology Act (15 U.S.C. 278g–3) is amended—

(1) in paragraph (2), by striking ''and'' after the semicolon;

(2) in paragraph (3), by striking the period and inserting ''; and''; and

(3) by adding at the end the following:

''(4) performance standards and guidelines for high risk biometric identification systems, including facial recognition systems, accounting for various use cases, types of biometric identification systems, and relevant operational conditions.''.

SEC. 10228. PROTECTING RESEARCH FROM CYBERSECURITY THEFT.

Subparagraph (A) of section 2(e)(1) of the National Institute of Standards and Technology Act (15 U.S.C. 272(e)(1)) is amended—

(1) in clause (viii), by striking ''and'' after the semicolon;

(2) by redesignating clause (ix) as clause (x); and

(3) by inserting after clause (viii) the following:

''(ix) consider institutions of higher education (as such term is defined in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001)); and''.

SEC. 10229. DISSEMINATION OF RESOURCES FOR RESEARCH INSTITUTIONS.

(a) DISSEMINATION OF RESOURCES FOR RESEARCH INSTITUTIONS.—

(1) IN GENERAL.—Not later than one year after the date of the enactment of this Act, the Director shall, using the authorities of the Director under subsections (c)(15) and (e)(1)(A)(ix) of section 2 of the National Institute of Standards and Technology Act (15 U.S.C. 272), disseminate and make publicly available tailored resources to help qualifying institutions identify, assess, manage, and reduce their cybersecurity risk related to conducting research.

(2) REQUIREMENTS.—The Director shall ensure that the resources disseminated pursuant to paragraph (1)—

(A) are generally applicable and usable by a wide range of qualifying institutions;

(B) vary with the nature and size of the qualifying institutions, and the nature and sensitivity of the data collected or stored on the information systems or devices of the qualifying institutions;

(C) include elements that promote awareness of simple, basic controls, a workplace cybersecurity culture, and third-party stakeholder relationships, to assist qualifying institutions in mitigating common cybersecurity risks;

(D) include case studies, examples, and scenarios of practical application;

(E) are outcomes-based and can be implemented using a variety of technologies that are commercial and off-the-shelf; and

(F) to the extent practicable, are based on international technical standards.

(3) NATIONAL CYBERSECURITY AWARENESS AND EDUCATION PROGRAM.—The Director shall ensure that the resources disseminated under paragraph (1) are consistent with the efforts of the Director under section 303 of the Cybersecurity Enhancement Act of 2014 (15 U.S.C. 7443).

(4) UPDATES.—The Director shall review periodically and update the resources under paragraph (1) as the Director determines appropriate.

(5) VOLUNTARY RESOURCES.—The use of the resources disseminated under paragraph (1) shall be considered voluntary.

(b) OTHER FEDERAL CYBERSECURITY REQUIREMENTS.—Nothing in this section may be construed to supersede, alter, or otherwise affect any cybersecurity requirements applicable to Federal agencies.

(c) DEFINITIONS.—In this section:

(1) QUALIFYING INSTITUTIONS.—The term ''qualifying institutions'' means institutions of higher education that are awarded in excess of $50,000,000 per year in total Federal research funding.

(2) RESOURCES.—The term ''resources'' means guidelines, tools, best practices, technical standards, methodologies, and other ways of providing information.

SEC. 10230. ADVANCED COMMUNICATIONS RESEARCH.

The National Institute of Standards and Technology Act (15 U.S.C. 271 et seq.) is amended—

(1) by redesignating section 35 as section 36; and

(2) by inserting after section 34 the following:

"SEC. 35. ADVANCED COMMUNICATIONS RESEARCH ACTIVITIES.

''(a) ADVANCED COMMUNICATIONS RESEARCH.—

''(1) IN GENERAL.—The Director, in consultation with the Assistant Secretary for Communications and Information, the Director of the National Science Foundation, and heads of other Federal agencies, as appropriate, shall carry out a program of measurement research for advanced communications technologies.

''(2) RESEARCH AREAS.—Research areas may include—

''(A) radio frequency emissions and interference, including technologies and techniques to mitigate such emissions and interference;

''(B) advanced antenna arrays and artificial intelligence systems capable of operating advanced antenna arrays;

''(C) artificial intelligence systems to enable internet of things networks, immersive technology, and other advanced communications technologies;

''(D) network sensing and monitoring technologies;

''(E) technologies to enable spectrum flexibility and agility;

''(F) optical and quantum communications technologies;

''(G) security of advanced communications systems;

''(H) public safety communications;

''(I) resilient internet of things applications for advanced manufacturing; and

''(J) other research areas determined necessary by the Director.

''(3) TESTBEDS.—In coordination with the Assistant Secretary for Communications and Information, the private sector, and other Federal agencies as appropriate, the Director may develop and manage testbeds for research and development of advanced communications technologies, avoiding duplication of existing testbeds run by other agencies or the private sector.

''(4) OUTREACH.—In carrying out the activities under this subsection, the Director shall seek input from other Federal agencies and from private sector stakeholders, on an ongoing basis, to help inform research and development priorities, including through workshops and other multi-stakeholder activities.

''(5) TECHNICAL ROADMAPS.—In carrying out the activities under this subsection, the Director shall convene industry, institutions of higher education, nonprofit organizations, Federal laboratories, and other Federal agencies engaged in advanced communications research and development to develop, and periodically update, coordinated technical roadmaps for advanced communications research in priority areas, such as those described in paragraph (2).

''(b) NATIONAL ADVANCED SPECTRUM AND COMMUNICATIONS TEST NETWORK.—

''(1) IN GENERAL.—The Director, in coordination with the Administrator of the National Telecommunications and Information Administration and heads of other Federal agencies, as appropriate, shall operate a national network of government, academic, and commercial test capabilities and facilities to be known as the National Advanced Spectrum and Communications Test Network (referred to in this section as 'NASCTN').

''(2) PURPOSES.—NASCTN shall be for the purposes of facilitating and coordinating the use of intellectual capacity, modeling and simulation, laboratory facilities, and test facilities to meet national spectrum interests and challenges, including—

''(A) measurements and analyses of electromagnetic propagation, radio systems characteristics, and operating techniques affecting the utilization of the electromagnetic spectrum in coordination with specialized, related research and analysis performed by other Federal agencies in their areas of responsibility;

''(B) conducting research and analysis in the general field of telecommunications sciences in support of the Institute's mission and in support of other Government agencies;

''(C) developing methodologies for testing, measuring, and setting guidelines for interference;

''(D) conducting interference tests to better understand the impact of current and proposed Federal and commercial spectrum activities;

''(E) conducting research and testing to improve spectrum interference tolerance, flexibility, agility, and interference mitigation methods; and

''(F) other activities as determined necessary by the Director.''.

SEC. 10231. NEUTRON SCATTERING.

(a) STRATEGIC PLAN FOR THE INSTITUTE NEUTRON REACTOR.—The Director shall develop a strategic plan for the future of the NIST Center for Neutron Research after the current neutron reactor is decommissioned, including—

(1) a succession plan for the reactor, including a roadmap with timeline and milestones;

(2) conceptual design of a new reactor and accompanying facilities, as appropriate; and

(3) a plan to minimize disruptions to the user community during the transition.

(b) COORDINATION WITH THE DEPARTMENT OF ENERGY.—The Secretary, acting through the Director, shall coordinate with the Secretary of Energy on issues related to Federal support for neutron science, including estimation of long-term needs for research using neutron sources, and planning efforts for future facilities to meet such needs.

(c) REPORT TO CONGRESS.—Not later than 30 months after the date of enactment of this Act, the Director shall submit to Congress the plan required under subsection (a), and shall notify Congress of any substantial updates to such plan in subsequent years.

SEC. 10232. ARTIFICIAL INTELLIGENCE.

(a) IN GENERAL.—The Director shall continue to support the development of artificial intelligence and data science, and carry out the activities of the National Artificial Intelligence Initiative Act of 2020 authorized in division E of the National Defense Authorization Act for Fiscal Year 2021 (Public Law 116–283), including through—

(1) expanding the Institute's capabilities, including scientific staff and research infrastructure;

(2) supporting measurement research and development for advanced computer chips and hardware designed for artificial intelligence systems;

(3) supporting the development of technical standards and guidelines that promote safe and trustworthy artificial intelligence systems, such as enhancing the accuracy, explainability, privacy, reliability, robustness, safety, security, and mitigation of harmful bias in artificial intelligence systems;

(4) creating a framework for managing risks associated with artificial intelligence systems; and

(5) developing and publishing cybersecurity tools, encryption methods, and best practices for artificial intelligence and data science.

(b) AI TESTBEDS.—Section 22A of the National Institute of Standards and Technology Act (15 U.S.C. 278h–1) is amended—

(1) by redesignating subsection (g) as subsection (h); and

(2) by inserting after subsection (f) the following:

''(g) TESTBEDS.—In coordination with other Federal agencies as appropriate, the private sector, and institutions of higher education (as such term is defined in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001)), the Director may establish testbeds, including in virtual environments, to support the development of robust and trustworthy artificial intelligence and machine learning systems, including testbeds that examine the vulnerabilities and conditions that may lead to failure in, malfunction of, or attacks on such systems.''.

SEC. 10233. SUSTAINABLE CHEMISTRY RESEARCH AND EDUCATION.

In accordance with section 263 of the National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 9303), the Director shall carry out activities in support of sustainable chemistry, including coordinating and partnering with academia, industry, nonprofit organizations, and other entities in activities to support clean, safe, and economic alternatives, technologies, and methodologies to traditional chemical products and processes.

SEC. 10234. PREMISE PLUMBING RESEARCH.

(a) IN GENERAL.—The Secretary, acting through the Director, shall create a program, in consultation with the Environmental Protection Agency, for premise plumbing research, including to—

(1) conduct metrology research on premise plumbing in relation to water safety, security, efficiency, sustainability, and resilience; and

(2) coordinate research activities with academia, the private sector, nonprofit organizations, and other Federal agencies.

(b) DEFINITIONS.—For purposes of this section, the term ''premise plumbing'' means the water distribution system located within the property lines of a property, including all buildings and permanent structures on such property. Such term includes building supply and distribution pipes, fixtures, fittings, water heaters, water-treating and water-using equipment, and all respective joints, connections, devices, and appurtenances.

SEC. 10235. DR. DAVID SATCHER CYBERSECURITY EDUCATION GRANT PROGRAM.

(a) AUTHORIZATION OF GRANTS.—

(1) IN GENERAL.—Subject to the availability of appropriations, the Director shall carry out the Dr. David Satcher Cybersecurity Education Grant Program by—

(A) awarding grants to assist institutions of higher education that have an enrollment of needy students, historically Black colleges and universities, Tribal Colleges and Universities, and minority-serving institutions, to establish or expand cybersecurity programs, to build and upgrade institutional capacity to better support new or existing cybersecurity programs, including cybersecurity partnerships with public and private entities, and to support such institutions on the path to producing qualified entrants in the cybersecurity workforce or becoming a National Center of Academic Excellence in Cybersecurity; and

(B) awarding grants to build capacity at institutions of higher education that have an enrollment of needy students, historically Black colleges and universities, Tribal Colleges and Universities, and minority-serving institutions, to expand cybersecurity education opportunities, cybersecurity programs, cybersecurity research, and cybersecurity partnerships with public and private entities.

(2) RESERVATION.—The Director shall award not less than 50 percent of the amount available for grants under this section to historically Black colleges and universities, Tribal Colleges and Universities, and minority-serving institutions.

(3) COORDINATION.—The Director shall carry out this section in coordination with appropriate Federal agencies, including the Departments of Homeland Security, Education, and Labor.

(4) SUNSET.—The Director's authority to award grants under paragraph (1) shall terminate on the date that is 5 years after the date the Director first awards a grant under paragraph (1).

(b) APPLICATIONS.—An eligible institution seeking a grant under subsection (a) shall submit an application to the Director at such time, in such manner, and containing such information as the Director may reasonably require, including a statement of how the institution will use the funds awarded through the grant to expand cybersecurity education opportunities at the eligible institution.

(c) ACTIVITIES.—An eligible institution that receives a grant under this section may use the funds awarded through such grant for increasing research, education, technical, partnership, and innovation capacity, including for—

(1) building and upgrading institutional capacity to better support new or existing cybersecurity programs, including cybersecurity partnerships with public and private entities;

(2) building and upgrading institutional capacity to provide hands-on research and training experiences for undergraduate and graduate students; and

(3) outreach and recruitment to ensure students are aware of such new or existing cybersecurity programs, including cybersecurity partnerships with public and private entities.

(d) REPORTING REQUIREMENTS.—Not later than—

(1) one year after the effective date of this section, as provided in subsection (f), and annually thereafter until the Director submits the report under paragraph (2), the Director shall prepare and submit to Congress a report on the status and progress of implementation of the grant program under this section, including on the number and demographics of institutions participating, the number and nature of students served by cybersecurity programs at institutions receiving grants, as well as the number of certificates or degrees awarded through such cybersecurity programs, the level of funding provided to grant recipients, the types of activities being funded by the grants program, and plans for future implementation and development; and

(2) five years after the effective date of this section, as provided in subsection (f), the Director shall prepare and submit to Congress a report on the status of cybersecurity education programming and capacity-building at institutions receiving grants under this section, including changes in the scale and scope of these programs, associated facilities, or in accreditation status, and on the educational and employment outcomes of students participating in cybersecurity programs that have received support under this section.

(e) PERFORMANCE METRICS.—The Director shall establish performance metrics for grants awarded under this section.

(f) EFFECTIVE DATE.—This section shall take effect 1 year after the date of enactment of this Act.

Subtitle C—General Activities

SEC. 10241. EDUCATIONAL OUTREACH AND SUPPORT FOR UNDERREPRESENTED COMMUNITIES.

Section 18 of the National Institute of Standards and Technology Act (15 U.S.C. 278g–1) is amended—

(1) in subsection (a), in the second sentence—

(A) by striking ''may'' and inserting ''shall''; and

(B) by striking ''academia'' and inserting ''diverse types of institutions of higher education, including historically Black colleges and universities, Tribal Colleges and Universities, and minority-serving institutions, and community colleges''; and

(2) in subsection (e)—

(A) in paragraph (4), by striking ''and'' at the end;

(B) in paragraph (5), by striking the period at the end and inserting ''; and''; and

(C) by inserting after paragraph (5) the following:

''(6) conduct outreach to and develop research collaborations with historically Black colleges and universities, Tribal Colleges or Universities, and minority serving institutions, including through the recruitment of students and faculty at such institutions to participate in programs developed under paragraph (3);

''(7) conduct outreach to and develop research collaborations with community colleges, including through the recruitment of students and faculty at such institutions to participate in programs developed under paragraph (3);

''(8) carry out other activities to increase the participation of persons historically underrepresented in STEM in the Institute's programs; and

''(9) conduct outreach to and develop collaborations with nontraditional educational organizations, including those that offer training through nonprofit associations and professional associations or professional societies, to engage persons historically underrepresented in STEM through programs developed under this subsection.''.

SEC. 10242. OTHER TRANSACTIONS AUTHORITY.

(a) IN GENERAL.—Paragraph (4) of section 2(b) of the National Institute of Standards and Technology Act (15 U.S.C. 272(b)) is amended to read as follows:

''(4) to enter into and perform such contracts, including cooperative research and development arrangements and grants and cooperative agreements or other transactions, as may be necessary in the conduct of its work and on such terms as it may determine appropriate, in furtherance of the purposes of this Act;''.

(b) REPORTING.—Not later than one year after the date of the enactment of this Act and not less than annually thereafter, the Secretary shall submit to the Committee on Science, Space, and Technology and the Committee on Appropriations of the House of Representatives and the Committee on Commerce, Science, and Transportation and the Committee on Appropriations of the Senate a report on the use of agreements, activities, and associated funding for transactions (other than contracts, cooperative agreements, and grants) described in paragraph (4) of section 2(b) of the National Institute of Standards and Technology Act (as amended by subsection (a)), including the following elements:

(1) A description of when the other transactions authority described in such amended paragraph was used and for what purpose.

(2) A description of why such other transactions authority was required.

(3) Steps taken to ensure necessary and sufficient oversight of Federal Government requirements implemented using such other transactions authority.

SEC. 10243. REPORT TO CONGRESS ON COLLABORATIONS WITH GOVERNMENT AGENCIES.

Not later than 6 months after the date of the enactment of this Act, the Director shall submit a report to the Committee on Science, Space, and Technology and the Committee on Appropriations of the House of Representatives and the Committee on Commerce, Science, and Transportation and the Committee on Appropriations of the Senate describing the Institute's challenges with respect to collaboration between the Institute and other Federal agencies. The report shall include, at a minimum—

(1) an assessment of the challenges that arise with interagency collaboration, including transfer of funds with a limited period of availability to the Institute and issues with sharing personnel, associates, facilities, and property with collaborating agencies; and

(2) descriptions of projects that were disrupted due to the challenges outlined in paragraph (1).

SEC. 10244. HIRING CRITICAL TECHNICAL EXPERTS.

Section 6 of the National Institute of Standards and Technology Act (15 U.S.C. 275) is amended to read as follows:

''SEC. 6. HIRING CRITICAL TECHNICAL EXPERTS.

''(a) IN GENERAL.—The officers and employees of the Institute, except the director, shall be appointed by the Secretary at such time as their respective services may become necessary.

''(b) HIRING CRITICAL TECHNICAL EXPERTS.—Notwithstanding section 3104 of title 5 or the provisions of any other law relating to the appointment, number, classification, or compensation of employees, the Secretary shall have the authority to make appointments of scientific, engineering, and professional personnel, and to fix the basic pay of such personnel at a rate to be determined by the Secretary at rates not in excess of the highest total annual compensation payable at the rate determined under section 104 of title 3, United States Code. The Director shall appoint not more than 15 personnel under this section.

''(c) SUNSET.—The authority under section (b) shall expire on the date that is 5 years after the date of the enactment of this section.''.

SEC. 10245. INTERNATIONAL STANDARDS DEVELOPMENT.

(a) SENSE OF CONGRESS.—It is the sense of Congress that—

(1) the principles of openness, transparency, due process, balance of interests, appeals, and consensus in the development of international standards are critical;

(2) voluntary consensus standards, developed through an industry-led process, serve as the cornerstone of the United States standardization system and have become the basis of a sound national economy and the key to global market access;

(3) strengthening the unique United States public-private partnerships approach to standards development is critical to United States economic competitiveness; and

(4) the United States Government should ensure cooperation and coordination across Federal agencies to partner with and support private sector stakeholders to continue to shape international dialogues in regard to standards development for emerging technologies.

(b) INTERNATIONAL STANDARDS ENGAGEMENT.—

(1) IN GENERAL.—The Director shall lead information exchange and coordination among Federal agencies and communication from Federal agencies to the private sector of the United States to ensure effective Federal engagement in the development and use of international technical standards.

(2) REQUIREMENTS.—To support private sector-led engagement and ensure effective Federal engagement in the development and use of international technical standards, the Director shall consider—

(A) the role and needs of the Federal Government with respect to international technical standards;

(B) organizations developing international technical standards of interest to the United States, United States representation and influence in these organizations, and key contributors for technical and leadership expertise in these organizations;

(C) support for persons with domain subject matter expertise, especially from small businesses located in the United States, to influence and engage in technical standards leadership positions, working groups and meetings;

(D) opportunities for partnerships for supporting international technical standards from across the Federal Government, Federally funded research and development centers, university-affiliated research centers, institutions of higher education, industry, industry associations, nonprofit organizations, and other key contributors;

(E) support for activities to encourage the adoption of technical standards developed in the United States to be adopted by international standards organizations; and

(F) other activities determined by the Director to be necessary to support United States participation in international standards development, economic competitiveness, and national security in the development and use of international technical standards.

(c) CAPACITY BUILDING GUIDANCE.—The Director shall support education and workforce development efforts to promote United States participation in international standards organizations. The Director shall—

(1) identify and create, as appropriate, technical standards education and training resources for interested businesses, industry associations, academia, nonprofit organizations, Federal agencies, and other relevant standards contributors, including activities targeted at integrating standards content into undergraduate and graduate curricula in science, engineering, business, public policy, and law;

(2) conduct outreach, including to private sector leaders, to support engagement by more United States stakeholders in international technical standards development; and

(3) other activities determined necessary by the Director to support increased engagement, influence, and leadership of United States organizations in the development of international technical standards.

(d) CAPACITY BUILDING PILOT PROGRAM.—

(1) IN GENERAL.—The Director, in coordination with the Director of the National Science Foundation, and the heads of other relevant Federal agencies, as appropriate, shall establish or enter into cooperative agreements with appropriate nongovernmental organizations to establish a 5-year pilot program to award grants, on a merit-reviewed, competitive basis, to private sector entities, institutions of higher education, or nonprofit institutions based in the United States to support increased participation and leadership by small business and academic interests in international standards organizations.

(2) USE OF FUNDS.—Grants awarded to eligible entities under this subsection may be used to cover reasonable costs, up to a specified ceiling set by the Director, of activities to support increased engagement and leadership of eligible entity employees in international standards organizations, which may include costs associated with—

(A) travel;

(B) education and training;

(C) dues or fees related to participation in technical standards development activities; and

(D) other such costs that the Director determines may reasonably support participation of the eligible entity in international standards organizations.

(3) AWARD CRITERIA.—The Director shall ensure that award decisions made under this subsection take into account the extent to which the eligible entity—

(A) employs full-time an individual or individuals who demonstrate deep technical standards expertise;

(B) employs full-time an individual or individuals who demonstrate knowledge with the processes of the standards development organization in which the eligible entity intends to engage using grant funds;

(C) proposes a feasible set of standard deliverables to be completed over the period of the grant;

(D) explains how the eligible entity will fund additional standards-related activities necessary to achieve the deliverables referred to in subparagraph (C) if the grant funds are insufficient to cover all costs of such activities;

(E) commits personnel with appropriate expertise to regularly engage in relevant international organizations responsible for developing technical standards over the period of the grant; and

(F) identifies a clearly defined current or anticipated market need or gap that would be addressed by their standards development proposal.

(4) ELIGIBILITY.—A small business concern (as such term is defined in section 3 of the Small Business Act (15 U.S.C. 632) based in the United States, an institution of higher education, or a nonprofit institution (as such term is defined in section 4 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3703)) shall be eligible to receive grants under this program.

(5) GUIDANCE ON APPLICATION AND AWARD PROCESS.—The Director shall develop, and periodically update, guidance, including eligibility, applicant disclosure requirements, grant amount and duration, the merit review process, priority areas for standards development, and any additional requirements for how grants are awarded under this subsection.

(6) MERIT REVIEW PROCESS.—The Director shall ensure that grants under this subsection are awarded based on a competitive, merit review process including the use of merit review panels that may include experts from both government, the private sector, and, as appropriate, academic, nonprofit, or other organizations as the Director determines appropriate.

(7) CONSULTATION.—In carrying out the pilot program established under this subsection, the Director shall consult with other Federal agencies, private sector organizations, institutions of higher education, and nonprofit organizations to help inform the pilot program, including the guidance developed under paragraph (5).

(8) REPORT TO CONGRESS.—The Director shall brief Congress after the second year of the pilot program and each year following that includes the following:

(A) An assessment of the effectiveness of the pilot program for improving the participation of United States small businesses, United States institutions of higher education, or other nonprofit research institutions in international standards organizations, including—

(i) the type of activities supported, including leadership roles;

(ii) the international standards organizations participated in; and

(iii) the technical areas covered by the activities.

(B) If determined effective, a plan for permanent implementation of the pilot program.

SEC. 10246. STANDARD TECHNICAL UPDATE.

(a) NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY ACT UPDATES.—The National Institute of Standards and Technology Act (15 U.S.C. 271) is amended—

(1) by amending subsection (a) of section 17 (15 U.S.C. 278g) to read as follows:

''(a) The Secretary is authorized, notwithstanding any other provision of law, to expend such sums, within the limit of appropriated funds, as the Secretary may determine desirable through direct support for activities of international organizations and foreign national metrology institutes with which the Institute cooperates to advance measurement methods, technical standards, and related basic technologies, for official representation, to host official receptions, dinners, and similar events, and to otherwise extend official courtesies, including transportation of foreign dignitaries and representatives of foreign national metrology institutes to and from the Institute, for the purpose of maintaining the standing and prestige of the Department of Commerce and the Institute, through the grant of fellowships or other appropriate form of financial or logistical assistance or support to foreign nationals not in service to the Government of the United States while they are performing scientific or engineering work at the Institute or participating in the exchange of scientific or technical information at the Institute.''; and

(2) in section 20 (15 U.S.C. 278g–3)—

(A) in subsection (c), by amending paragraph (3) to read as follows:

''(3) submit such standards and guidelines to the Secretary of Commerce for promulgation under section 11331 of title 40;''; and

(B) in subsection (d)—

(i) in paragraph (1), by striking ''Director of the Office of Management and Budget'' and inserting ''Secretary of Commerce''; and

(ii) in paragraph (8), by striking ''Director of Management and Budget with such standards submitted to the Director'' and inserting ''Secretary of Commerce with such standards submitted to the Secretary''.

(b) STEVENSON-WYDLER UPDATES.—The Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3701 et seq.) is amended—

(1) in paragraph (1) of section 17(c) (15 U.S.C. 3711a(c))—

(A) by moving each of subparagraphs (D) and (E) two ems to the left; and

(B) by adding at the end the following:

''(G) Community.''; and

(2) in subsection (m) of section 26 (15 U.S.C. 3721)—

(A) by striking paragraph (2);

(B) by redesignating paragraph (3) as paragraph (2); and

(C) in paragraph (2), as so redesignated, by striking ''and the Comptroller General's review under paragraph (2)''.

(c) AMERICAN INNOVATION AND COMPETITIVENESS ACT UPDATE.—Section 113 of the American Innovation and Competitiveness Act (15 U.S.C. 278e note) is repealed.

(d) CLERICAL AMENDMENT.—The item relating to section 113 in the table of contents in section 1(b) of the American Innovation and Competitiveness Act is repealed.

(e) FEDERAL ENERGY MANAGEMENT IMPROVEMENT ACT UPDATE.—Section 4 of the Federal Energy Management Improvement Act of 1988 (15 U.S.C. 5001) is amended—

(1) by striking ''Secretary of Commerce'' and ''Secretary'' each place either such term appears and inserting ''Consumer Product Safety Commission'';

(2) by redesignating the second subsection (c) as subsection (e); and

(3) in subsection (g), by redesignating clauses (i) and (ii) as paragraphs (1) and (2), respectively.

(f) TITLE 40, UNITED STATES CODE.—Section 11331 of title 40, United States Code, is amended by striking subsections (a) through (d) and inserting the following:

''(a) STANDARDS AND GUIDELINES.—

''(1) AUTHORITY TO PRESCRIBE.—Except as provided under paragraph (2), the Secretary of Commerce shall, on the basis of standards and guidelines developed by the National Institute of Standards and Technology pursuant to paragraphs (2) and (3) of section 20(a) of the National Institute of Standards and Technology Act (15 U.S.C. 278g–3(a)), prescribe standards and guidelines pertaining to Federal information systems.

''(2) NATIONAL SECURITY SYSTEMS.—Standards and guidelines for national security systems shall be developed, prescribed, enforced, and overseen as otherwise authorized by law and as directed by the President.

''(b) MANDATORY REQUIREMENTS.—

''(1) AUTHORITY TO MAKE MANDATORY.—Except as provided under paragraph (2), the Secretary of Commerce shall make standards prescribed under subsection (a)(1) compulsory and binding to the extent determined necessary by the Secretary to improve the efficiency of operation or security of Federal information systems.

''(2) REQUIRED MANDATORY STANDARDS.—

''(A) IN GENERAL.—Standards prescribed under subsection (a)(1) shall include information security standards that—

''(i) provide minimum information security requirements as determined under section 20(b) of the National Institute of Standards and Technology Act (15 U.S.C. 278g–3(b)); and

''(ii) are otherwise necessary to improve the security of Federal information and information systems.

''(B) REQUIREMENT.—Information security standards described in subparagraph (A) shall be compulsory and binding.

''(c) AUTHORITY TO DISAPPROVE OR MODIFY.—The President may disapprove or modify the standards and guidelines referred to in subsection (a)(1) if the President determines such action to be in the public interest. The President's authority to disapprove or modify such standards and guidelines may not be delegated. Notice of such disapproval or modification shall be published promptly in the Federal Register. Upon receiving notice of such disapproval or modification, the Secretary of Commerce shall

immediately rescind or modify such standards or guidelines as directed by the President.

''(d) EXERCISE OF AUTHORITY.—To ensure fiscal and policy consistency, the Secretary of Commerce shall exercise the authority conferred by this section subject to direction by the President and in coordination with the Director of the Office of Management and Budget.

''(e) APPLICATION OF MORE STRINGENT STANDARDS.—The head of an executive agency may employ standards for the cost-effective information security for Federal information systems within or under the supervision of that agency that are more stringent than the standards the Secretary prescribes under this section if the more stringent standards—

''(1) contain at least the applicable standards made compulsory and binding by the Secretary of Commerce; and

''(2) are otherwise consistent with policies and guidelines issued under section 3553 of title 44.

''(f) DECISIONS ON PROMULGATION OF STANDARDS.—The decision by the Secretary of Commerce regarding the promulgation of any standard under this section shall occur not later than 6 months after the submission of the proposed standard to the Secretary by the National Institute of Standards and Technology, as provided under section 20 of the National Institute of Standards and Technology Act (15 U.S.C. 278g–3).

''(g) DEFINITIONS.—In this section:

''(1) FEDERAL INFORMATION SYSTEM.—The term 'Federal information system' means an information system used or operated by an executive agency, by a contractor of an executive agency, or by another organization on behalf of an executive agency.

''(2) INFORMATION SECURITY.—The term 'information security' has the meaning given that term in section 3552(b)(3) of title 44.

''(3) NATIONAL SECURITY SYSTEM.—The term 'national security system' has the meaning given that term in section 3552(b)(6) of title 44.''.

(g) TECHNICAL AND CONFORMING AMENDMENT.—Paragraph (2) of section 20(a) of the National Institute of Standards and Technology Act (15 U.S.C. 278g–3(a)) is amended by striking ''section 3552(b)(5) of title 44, United States Code'' and inserting ''section 3552(b)(6) of title 44, United States Code''.

(h) NATIONAL CONSTRUCTION SAFETY TEAM ACT UPDATES.—Section 4 of the National Construction Safety Team Act (15 U.S.C. 7303) is amended—

(1) in subsection (c), by adding at the end the following:

''(5) CIVIL SUITS.—Where practicable, a Team shall cooperate with civil litigants without compromising a Team's investigation or the evidence preservation activities as described in this section.''; and

(2) in subsection (d)—

(A) in the subsection heading, by striking ''INTERAGENCY'' and inserting ''INVESTIGATION''; and

(B) in paragraph (1), by inserting ''or any civil suit or civil action'' after ''Federal agency''.

SEC. 10247. GAO STUDY OF NIST RESEARCH SECURITY POLICIES AND PROTOCOLS.

(a) EVALUATION.—Not later than 1 year after the date of enactment of this Act, the Comptroller General of the United States shall conduct a study of the Institute's policies and protocols to protect its research and combat undue foreign influence.

(b) MATTERS TO BE INCLUDED.—The study conducted under subsection (a) shall include, to the extent practicable, the following:

(1) An analysis of steps taken by the Institute to address foreign threats to Institute-funded research over the previous 5 years.

(2) An analysis of the coordination and engagement between the Department of Commerce's Office of Inspector General, the Department of Commerce's Office of Intelligence, the National Counterintelligence and Security Center of the Office of the Director of National Intelligence, and the Institute in identifying and addressing concerning findings.

(3) An assessment of the Institute's review process for foreign national associates.

(4) An assessment of the Institute's policies as it relates to employees and associates participating in foreign talent recruitment programs.

(5) An assessment of the Institute's implementation of conflict of interest and disclosure policies and requirements, including the disclosure requirements authorized in section 223 of the National Defense Authorization Act for Fiscal Year 2021 (Public Law 116–283).

(6) An assessment of the Institute's, the Department of Commerce's Office of Security, the Department of Commerce's Office of Intelligence, and the Department of Commerce's Office of Inspector General's ability to monitor and enforce conflict of interest and disclosure policies and requirements, including the disclosure requirements authorized in section 223 of the National Defense Authorization Act for Fiscal Year 2021 (Public Law 116–283).

(7) An assessment of the Institute's, the Department of Commerce's, and the Department of Commerce's Office of Inspector General's ability to conduct risk assessments of research and development award applications and disclosures to the Institute.

(8) An assessment of the Institute's research security training programs for both internal and externally-supported researchers and associates, including training focused on international collaboration, and international travel, foreign interference, and rules for proper use of funds, disclosure, conflict of commitment, and conflict of interest.

(9) An analysis and summary of incidents of undue foreign influence at Institute-supported research facilities and programs over the past 10 years.

(10) Recommendations for the Institute to bolster its research security policies and protocols.

(11) Other matters the Comptroller General determines appropriate.

(c) CONGRESSIONAL BRIEFING.—Not later than 180 days after the date of enactment of this Act, the Comptroller General shall brief the Committee on Science, Space, and Technology and the Permanent Select Committee on Intelligence of the House of Representatives and the Committee of Commerce, Science, and Transportation and the Select Committee on Intelligence of the Senate on the findings available from the evaluation conducted under subsection (a).

(d) REPORT.—Not later than 18 months after the date of enactment of this Act, the Comptroller General shall submit to the congressional committees specified in subsection (c) a report on the findings and recommendations of the evaluation conducted under subsection (a).

SEC. 10248. STANDARDS DEVELOPMENT ORGANIZATION GRANTS.

(a) NONGOVERNMENTAL STANDARDS DEVELOPMENT ORGANIZATION DEFINED.—In this section, the term ''nongovernmental standards development organization'' means a nongovernmental standards development organization (as defined in section 2(e) of the Office of Management and Budget Circular A–119 (relating to Federal participation in the development and use of voluntary consensus standards in conformity assessment activities), or any successor document) that adheres to the American National Standards Institute (ANSI) Essential Requirements for Due Process for American National Standards.

(b) GRANT AUTHORITY.—The Secretary of Commerce, acting through the Director, shall establish a competitive program of grants for nongovernmental standards development organizations for the purposes described in subsection (c).

(c) PURPOSES.—A grant awarded under subsection (b) shall be used to develop, approve, disseminate, maintain, and review forensic science voluntary consensus standards and best practices that shall be available to the public free of charge.

(d) ADDITIONAL REQUIREMENTS.—The Director may promulgate such requirements, guidelines, and procedures as may be necessary to carry out this section.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $2,000,000 for each of fiscal years 2022 through 2026.

Subtitle D—Hollings Manufacturing Extension Partnership

SEC. 10251. ESTABLISHMENT OF EXPANSION AWARDS PILOT PROGRAM AS A PART OF THE HOLLINGS MANUFACTURING EXTENSION PARTNERSHIP.

(a) ESTABLISHMENT OF EXPANSION AWARDS PROGRAM.—The National Institute of Standards and Technology Act (15 U.S.C. 271 et seq.) is amended by inserting after section 25A (15 U.S.C. 278k–1) the following:

''SEC. 25B. EXPANSION AWARDS PILOT PROGRAM.

''(a) DEFINITIONS.—The terms used in this section have the meanings given the terms in section 25.

''(b) ESTABLISHMENT.—The Director shall establish, subject to the availability of appropriations, as a part of the Hollings Manufacturing Extension Partnership under sections 25 and 25A, a pilot program of expansion awards among participants described in subsection (c) for the purposes described in subsection (e).

''(c) PARTICIPANTS.—Participants receiving awards under this section shall be Centers, or a consortium of Centers (as such term is defined in section 25).

''(d) AWARD AMOUNTS.—Subject to the availability of appropriations, an award for a recipient under this section shall be in an amount equal to the sum of the following:

''(1) Such amount as the Director considers appropriate as a minimum base funding level for each award under this section.

''(2) Such additional amount as the Director considers in proportion to the manufacturing density of the region of the recipient.

''(3) Such supplemental amounts as the Director considers appropriate.

''(e) PURPOSE OF AWARDS.—An award under this section shall be made for one or more of the following purposes:

''(1) To provide worker education, training, development, and entrepreneurship training and to connect individuals or business with such services offered in their community, which may include employee ownership and workforce training, including connecting manufacturers with career and technical education entities, institutions of higher education (including community colleges), workforce development boards, labor organizations, and nonprofit job training providers to develop and support training and job placement services, including apprenticeship and online learning platforms, for new and incumbent workers, programming to prevent job losses when adopting new technologies and processes, and development of employee ownership practices.

''(2) To provide services to improve the resiliency of domestic supply chains.

''(3) To mitigate vulnerabilities to cyberattacks, including helping to offset the cost of cybersecurity projects for small manufacturers.

''(4) To expand advanced technology services to United States-based small- and medium-sized manufacturers, which may include—

''(A) developing technology demonstration laboratories;

''(B) training and demonstration in areas of supply chain and critical technology needs, including a focus on the demonstration of technologies developed by companies based in the United States;

''(C) services for the adoption of advanced technologies, including smart manufacturing technologies and practices; and

''(D) establishing partnerships, for the development, demonstration, and deployment of advanced technologies, with—

''(i) national laboratories (as defined in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801));

''(ii) Federal laboratories;

''(iii) Manufacturing USA institutes (as described in section 34(d)); and

''(iv) institutions of higher education.

''(5) To build capabilities across the Hollings Manufacturing Extension Partnership for domestic supply chain resiliency and optimization, including—

''(A) assessment of domestic manufacturing capabilities, expanded capacity for researching and deploying information on supply chain risk, hidden costs of reliance on offshore suppliers, redesigning products and processes to encourage reshoring, and other relevant topics; and

''(B) expanded services to provide industry-wide support that assists United States manufacturers with reshoring manufacturing to strengthen the resiliency of domestic supply chains, including in critical technology areas and foundational manufacturing capabilities that are key to domestic manufacturing competitiveness and resiliency, including forming, casting, machining, joining, surface treatment, tooling, and metal or chemical refining.

''(f) REIMBURSEMENT.—The Director may reimburse Centers for costs incurred by the Centers under this section.

''(g) APPLICATIONS.—Applications for awards under this section shall be submitted in such manner, at such time, and containing such information as the Director shall require in consultation with the Manufacturing Extension Partnership Advisory Board.

''(h) SELECTION.—

''(1) REVIEWED AND MERIT-BASED.—The Director shall ensure that awards under this section are reviewed and merit-based.

''(2) GEOGRAPHIC DIVERSITY.—The Director shall endeavor to have broad geographic diversity among selected proposals.

''(3) CRITERIA.—The Director shall select applications consistent with the purposes identified pursuant to subsection (e) to receive awards that the Director determines will achieve one or more of the following:

''(A) Improvement of the competitiveness of industries in the region in which the Center or Centers are located.

''(B) Creation of jobs or training of newly hired employees.

''(C) Promotion of the transfer and commercialization of research and technology from institutions of higher education, national laboratories, or other federally funded research programs, and nonprofit research institutes.

''(D) Recruitment of a diverse manufacturing workforce, including through outreach to underrepresented populations, including individuals identified in section 33 or section 34 of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885a, 1885b).

''(E) Any other result the Director determines will advance the objective set forth in section 25(c) or 25A.

''(i) PROGRAM CONTRIBUTION.—Recipients of awards under this section shall not be required to provide a matching contribution.

''(j) GLOBAL MARKETPLACE PROJECTS.—In making an award under this section, the Director, in consultation with the Manufacturing Extension Partnership Advisory Board and the Secretary, may take into consideration whether an application has significant potential for enhancing the competitiveness of small and medium-sized United States manufacturers in the global marketplace.

''(k) DURATION.—The Director shall ensure that the duration of an award under this section is aligned and consistent with a Center's cooperative agreement established in section 25(e).

''(l) REPORT.—Not later than October 1, 2025, the Director shall submit to Congress a report that includes—

''(1) a summary description of what activities were funded and the measurable outcomes of such activities;

''(2) a description of which types of activities under paragraph (1) could remain as part of a permanent expansion awards program;

''(3) a description of which types of activities under paragraph (1) could be integrated into, and supported under, the program under section 25;

''(4) a description of which types of activities under paragraph (1) could be integrated into, and supported under, the competitive awards program under section 25A; and

''(5) a recommendation, supported by a clear explanation, as to whether the pilot program should be continued.''.

(b) RESOURCE OPTIMIZATION.—Of amounts authorized for the Hollings Manufacturing Extension Partnership program under section 25 of the National Institute of Standards and Technology Act (15 U.S.C. 278k), the Secretary shall optimize funding across sections 25 and 25A of such Act, as well as the program established under section 25B of such Act (as added by subsection (a)), to the extent practicable and subject to the availability of appropriations, in order to maximize Center (as such term is defined in such section 25) participation as well as competitiveness, productivity, and technological performance in United States manufacturing.

SEC. 10252. UPDATE TO HOLLINGS MANUFACTURING EXTENSION PARTNERSHIP.

(a) ACCEPTANCE OF FUNDS.—Subsection (l) of section 25 of the National Institute of Standards and Technology Act (15 U.S.C. 278k) is amended to read as follows:

''(l) ACCEPTANCE OF FUNDS.—

''(1) IN GENERAL.—To the extent provided in advance in appropriations Acts, other Federal departments and agencies may transfer amounts to the Institute, and the Secretary and Director may accept and make available cash donations from the private sector pursuant to section 2(c)(7), to be used for strengthening United States manufacturing under this section.

''(2) COMPETITIVE AWARDS.—Funds accepted from other Federal departments and agencies and from the private sector under paragraph (1) shall be awarded competitively by the Secretary and Director to Centers, provided that the Secretary and Director may make noncompetitive awards, pursuant to this section or section 25A, or as a non-competitive contract, as appropriate, if the Secretary and Director determine that—

''(A) the manufacturing market or sector targeted is limited geographically or in scope;

''(B) the number of States (or territory, in the case of Puerto Rico) with Centers serving manufacturers of such market or sector is five or fewer; and

''(C) such Center has or Centers have received a positive evaluation in the most recent evaluation conducted pursuant to subsection (g).''.

(b) SUPPORTING AMERICAN MANUFACTURING.—Section 25 of the National Institute of Standards and Technology Act (15 U.S.C. 278k) is amended—

(1) in subsection (a)(5)—

(A) by striking ''or consortium thereof,''; and

(B) by inserting ''or a consortium thereof'' before the period at the end of the sentence;

(2) in subsection (c)(4), by inserting ''United States-based'' before ''industrial'';

(3) in subsection (d)—

(A) in paragraph (1), by inserting ''at United States-based industrial facilities, including small and medium manufacturing companies'' before ''based'';

(B) in paragraph (2), by inserting ''United States-based'' before ''companies''; and

(C) in paragraph (3), by inserting ''United States-based'' before ''small'';

(4) in subsection (f)(5)(B)(i), by inserting ''in the United States'' before the semicolon at the end of the clause; and

(5) in subsection (n)(1)(A), by inserting ''United States-based'' before ''small''.

(c) AMENDING THE MEP COMPETITIVE AWARDS PROGRAM.—Section 25A(c)(2) of the National Institute of Standards and Technology Act (15 U.S.C. 278k-1(c)(2)) is amended by inserting ''United States'' before ''manufacturers''.

(d) MEP OUTREACH.—Section 25 of the National Institute of Standards and Technology Act (15 U.S.C. 278k) is amended—

(1) in subsection (c)—

(A) in paragraph (6), by striking ''community colleges and area career and technical education schools'' and inserting the following: ''secondary schools, community colleges, and area career and technical education schools, including those in underserved and rural communities,''; and

(B) in paragraph (7)—

(i) by striking ''and local colleges'' and inserting ''local secondary schools and local colleges, including historically Black colleges and universities, Tribal Colleges or Universities, minority-serving institutions, community colleges, and secondary schools and colleges in underserved and rural communities,''; and

(ii) by inserting ''or other applied learning opportunities'' after ''apprenticeships''; and

(2) in subsection (d)(3), by striking '', community colleges, and area career and technical education schools,'' and inserting the following: ''and local high schools, community colleges, and area career and technical education schools, including those in underserved and rural communities,''.

SEC. 10253. NATIONAL SUPPLY CHAIN DATABASE.

(a) ESTABLISHMENT OF NATIONAL SUPPLY CHAIN DATABASE.—The Director shall establish a voluntary National Supply Chain Database, subject to the availability of appropriations.

(b) PURPOSE.—The purpose of the voluntary National Supply Chain Database shall be to assist the Federal Government and industry sectors in minimizing disruptions to the United States supply chain by having an assessment of United States manufacturers' capabilities.

(c) STUDY ON NATIONAL SUPPLY CHAIN DATABASE.—In establishing the National Supply Chain Database, the Director shall consider the findings and recommendations from the study authorized pursuant to section 9413 of the National Defense Authorization Act for Fiscal Year 2021 (Public Law 116–283), including measures to secure and protect the Database from adversarial attacks and vulnerabilities.

(d) DATABASE AND MANUFACTURING EXTENSION PARTNERSHIP.—

(1) IN GENERAL.—The Director shall establish the infrastructure for the National Supply Chain Database through the Hollings Manufacturing Extension Partnership, established pursuant to section 25 of the National Institute of Standards and Technology Act (15 U.S.C. 278k), by connecting information from the Centers (as such term is defined in such section) through the Database.

(2) NATIONAL VIEW.—The Director shall ensure that connections under paragraph (1)—

(A) provide a national overview of the networks of supply chains of the United States; and

(B) support understanding of whether there is a need for some manufacturers to retool in some critical areas to meet the urgent need for key products.

(3) INDIVIDUAL HOLLINGS MANUFACTURING EXTENSION PARTNERSHIP CENTER DATABASES.—

(A) IN GENERAL.—The Director shall ensure that—

(i) each Center is connected to the National Supply Chain Database; and

(ii) each supply chain database maintained by a Center is interoperable with the Database.

(B) RULE OF CONSTRUCTION.—Nothing in this section may be construed to require a State or territory of the United States to establish a new supply chain database through the Hollings Manufacturing Extension Partnership program.

(e) MAINTENANCE OF NATIONAL SUPPLY CHAIN DATABASE.—The Director, acting through the Hollings Manufacturing Extension Partnership program or a designee of the program—

(1) shall maintain the National Supply Chain Database as an integration of State-level databases from the Center of each State or territory of the United States;

(2) may populate the Database with information from past or current clients of Centers; and

(3) may include in the Database information voluntarily provided by non-client private sector entities based and operating in the United States, as applicable and appropriate.

(f) DATABASE CONTENT.—The National Supply Chain Database may include the following:

(1) Basic private sector entity information.

(2) An overview of capabilities, accreditations, and products.

(3) Proprietary information.

(g) STANDARD CLASSIFICATION SYSTEM.—The National Supply Chain Database may, where applicable, use the North American Industry Classification System (NAICS) Codes as follows:

(1) Sector 31-33 – Manufacturing.

(2) Sector 54 – Professional, Scientific, and Technical Services.

(3) Sector 48-49 – Transportation and Warehousing.

(h) LEVELS.—The National Supply Chain Database shall be multi-leveled as agreed to under terms of mutual disclosure as follows:

(1) Level 1 shall have the capability to provide basic private sector entity information and shall be available to the public.

(2) Level 2 shall have the capability to provide a deeper, nonproprietary overview into capabilities, products, and accreditations and shall be available to all companies that contribute to the Database.

(3) Level 3 shall have the capability to hold proprietary information.

(i) MATTERS RELATING TO DISCLOSURE AND ACCESS.—

(1) FOIA EXEMPTION.—The National Supply Chain Database, and any information contained therein that is not publicly released by the Institute, shall be exempt from public disclosure under section 552(b)(3) of title 5, United States Code.

(2) LIMITATION ON ACCESS TO CONTENT.—Access to a contributing private sector entity's nonpublic content in the National Supply Chain Database shall be limited to—

(A) the contributing private sector entity, the Institute, and staff from a Center who sign a nondisclosure agreement, and

(B) other Federal departments and agencies, as the Director considers appropriate.

(3) AGGREGATED INFORMATION.—The Director may make aggregated, de-identified information available to contributing companies, Centers, or the public, as the Director considers appropriate, in support of the purposes of this section.

(j) COORDINATION WITH NATIONAL TECHNOLOGY AND INDUSTRIAL BASE COUNCIL.—The Director, acting through the Hollings Manufacturing Extension Partnership program, may work with the National Defense Technology and Industrial Base Council established under section 4812 of title 10, United States Code, as the Director considers appropriate, to include in the National Supply Chain Database information regarding the defense manufacturing supply chain.

(k) PROTECTIONS.—

(1) IN GENERAL.—Supply chain information that is voluntarily and lawfully submitted to the National Supply Chain Database by a private sector entity and accompanied by an express statement described in paragraph (2)—

(A) shall be exempt from disclosure under section 552(b)(3) of title 5, United States Code;

(B) may not be made available pursuant to any Federal, State, local, or Tribal authority pursuant to any Federal, State, local, or Tribal law requiring public disclosure of information or records; and

(C) may not, without the written consent of the private sector entity submitting such information, be used directly by the Director, or any other Federal, State, or local authority in any civil enforcement action brought by a Federal, State, Tribal, or local authority.

(2) EXPRESS STATEMENT.—The express statement described in this paragraph, with respect to information or records, is—

(A) in the case of written information or records, a written marking on the information or records substantially similar to the following: ''This information is voluntarily submitted to the Federal Government in expectation of protection from disclosure as provided by the provisions of section 10253(k) of the Research and Development, Competition, and Innovation Act.''; or

(B) in the case of oral information, a written statement similar to the statement described in subparagraph (A) submitted within a reasonable period following the oral communication.

(l) RULES OF CONSTRUCTION.—

(1) PRIVATE ENTITIES.—Nothing in this section may be construed to require any private sector entity to share data, including proprietary information, with the Director or the National Supply Chain Database.

(2) PROHIBITION ON NEW REGULATORY AUTHORITY.—Nothing in this section may be construed to grant the Director, or the head of any other Federal agency, any authority to promulgate regulations or set standards on manufacturers, based on data within the National Supply Chain Database, that was not in effect on the day before the date of the enactment of this section.

SEC. 10254. HOLLINGS MANUFACTURING EXTENSION PARTNERSHIP ACTIVITIES.

Section 70924(b) of the Infrastructure Investment and Jobs Act (Public Law 117–58) is amended to read as follows:

''(b) AUTOMATIC ENROLLMENT IN GSA ADVANTAGE.—The Administrator of the General Services Administration and the Secretary of Commerce, acting through the Under Secretary of Commerce for Standards and Technology, shall jointly ensure that businesses that participate in the Hollings Manufacturing Extension Partnership, and so desire, are automatically enrolled in General Services Administration Advantage.''.

SEC. 10255. AMENDMENT TO THE HOLLINGS MANUFACTURING EXTENSION PARTNERSHIP RELATING TO INSTITUTIONS OF HIGHER EDUCATION.

Subsection (a) of section 25 of the National Institute of Standards and Technology Act (15 U.S.C. 278k) is amended—

(1) by redesignating paragraph (6) (relating to the definition of ''Hollings Manufacturing Extension Partnership or Program'') as paragraph (7);

(2) by inserting after paragraph (5) the following new paragraph:

''(6) HISTORICALLY BLACK COLLEGE AND UNIVERSITY.—The term 'historically Black college and university' has the meaning given the term 'part B institution' in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061).'';

(3) by redesignating the second paragraph (7) (relating to the definition of ''MEP Advisory Board'') as paragraph (8);

(4) by inserting after paragraph (6) (as inserted by paragraph (2), relating to the definition of ''historically Black college and university'') the following new paragraph:

''(7) INSTITUTION OF HIGHER EDUCATION.—The term 'institution of higher education' has the meaning given such term in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001).''; and

(5) by adding at the end the following new paragraphs:

''(9) MINORITY-SERVING INSTITUTION.—The term 'minority-serving institution' means a Hispanic-serving institution as defined in section 502(a) of the Higher Education Act of 1965 (20 U.S.C. 1101a(a)); an Alaska Native-serving institution or Native Hawaiian-serving institution as defined in section 317(b) of such Act (20 U.S.C. 1059d(b)); or a Predominantly Black institution, Asian American and Native American Pacific Islander-serving institution, or Native American-serving nontribal institution as defined in section 371(c) of such Act (20 U.S.C. 1067q(c)).

''(10) SECONDARY SCHOOL.—The term 'secondary school' has the meaning given such term in section 8101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

''(11) TRIBAL COLLEGE OR UNIVERSITY.—The term 'Tribal College or University' has the meaning given the term 'Tribal College or University' in section 316 of the Higher Education Act of 1965 (20 U.S.C. 1059c).''.

Subtitle E—Manufacturing USA Program

SEC. 10261. SUPPORTING GEOGRAPHIC DIVERSITY.

Section 34(e) of the National Institute of Standards and Technology Act (15 U.S.C. 278s(e)) is amended by adding at the end the following:

''(8) DIVERSITY PREFERENCES.—In awarding financial assistance under paragraph (1) for planning or establishing a Manufacturing USA institute, an agency head shall give special consideration to Manufacturing USA institutes that—

''(A) contribute to the geographic diversity of the Manufacturing USA Program;

''(B) are located in an area with a low per capita income;

''(C) are located in an area with a high proportion of socially disadvantaged residents; or

''(D) are located in small and rural communities.''.

SEC. 10262. EXPANDING OPPORTUNITIES THROUGH THE MANUFACTURING USA PROGRAM.

(a) IN GENERAL.—The Secretary of Commerce, in consultation with the Secretary of Energy, the Secretary of Defense, and the heads of such other Federal agencies as the Secretary of Commerce considers relevant, shall coordinate with existing and new Manufacturing USA institutes to integrate covered entities as active members of the Manufacturing USA institutes, including through the development of preferences in selection criteria for proposals to create new Manufacturing USA institutes or renew existing Manufacturing USA institutes that include one or more covered entities.

(b) COVERED ENTITIES.—For purposes of this subsection, a covered entity is—

(1) an historically Black college and university;

(2) a Tribal College or University;

(3) a minority-serving institution;

(4) a minority business enterprise (as such term is defined in section 1400.2 of title 15, Code of Federal Regulations, or successor regulation); or

(5) a rural-serving institution of higher education (as such term is defined in section 861 of the Higher Education Act of 1965 (20 U.S.C. 1161q)).

SEC. 10263. PROMOTING DOMESTIC PRODUCTION OF TECHNOLOGIES DEVELOPED UNDER MANUFACTURING USA PROGRAM.

(a) DEPARTMENT OF COMMERCE POLICIES TO PROMOTE DOMESTIC PRODUCTION OF TECHNOLOGIES DEVELOPED UNDER MANUFACTURING USA NETWORK.—

(1) POLICIES.—

(A) IN GENERAL.—Each agency head (as such term is defined in section 34(a) of the National Institute of Standards and Technology Act (15 U.S.C. 278s(a))) and the Secretary of Defense shall, in consultation with the Secretary of Commerce, establish policies to promote the domestic production of technologies developed by the Manufacturing USA Network.

(B) ELEMENTS.—The policies established under subparagraph (A) shall include the following:

(i) Measures to partner domestic developers of goods, services, or technologies by Manufacturing USA Network activities with domestic manufacturers and sources of financing.

(ii) Measures to develop and provide incentives to promote transfer of intellectual property and goods, services, or technologies developed by Manufacturing USA Network activities to domestic manufacturers.

(iii) Measures to assist with supplier scouting and other supply chain development, including the use of the Hollings Manufacturing Extension Partnership under section 25 of the National Institute of Standards and Technology Act (15 U.S.C. 278k) to carry out such measures.

(iv) A process to review and approve or deny membership in a Manufacturing USA institute by foreign-owned entities, especially from countries of concern, including the People's Republic of China.

(v) Measures to prioritize Federal procurement of goods, services, or technologies developed by the Manufacturing USA Network activities from domestic sources, as appropriate.

(C) PROCESSES FOR WAIVERS.—The policies established under this paragraph shall include processes to permit waivers, on a case by case basis, for policies that promote domestic production based on cost, availability, severity of technical and mission requirements, emergency requirements, operational needs, other legal or international treaty obligations, or other factors determined important to the success of the Manufacturing USA Program.

(2) PROHIBITION.—

(A) IN GENERAL.—A company of the People's Republic of China may not participate in the Manufacturing USA Program without a waiver, as described in paragraph (1)(C).

(B) COMPANY DEFINED.—In this paragraph, the term ''company'' has the meaning given such term in section 847(a) of the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116–92; 10 U.S.C. 4819 note).

(b) COORDINATION OF MANUFACTURING USA INSTITUTES.—Subsection (h) of section 34 of the National Institute of Standards and Technology Act (15 U.S.C. 278s) is amended by adding at the end the following:

''(7) COUNCIL FOR COORDINATION OF INSTITUTES.—

''(A) COUNCIL.—The National Program Office shall establish or designate a council of heads of any Manufacturing USA institute receiving Federal funding at any time to foster collaboration between Manufacturing USA institutes.

''(B) MEETINGS.—The council established or designated pursuant to subparagraph (A) shall meet not less frequently than twice each year.

''(C) DUTIES OF THE COUNCIL.—The council established pursuant to subparagraph (A) shall assist the National Program Office in carrying out the functions of the National Program Office under paragraph (2).''.

(c) REQUIREMENT FOR NATIONAL PROGRAM OFFICE TO DEVELOP STRATEGIES FOR RETAINING DOMESTIC PUBLIC BENEFIT AFTER CESSATION OF FEDERAL FUNDING.—Subparagraph (C) of section 34(h)(2) of the National Institute of Standards and Technology Act (15 U.S.C. 278s(h)(2)) is amended by inserting '', including a strategy for retaining domestic public benefits from Manufacturing USA institutes once Federal funding has been discontinued'' after ''Program''.

(d) MODIFICATION OF FUNCTIONS OF NATIONAL PROGRAM OFFICE TO INCLUDE DEVELOPMENT OF INDUSTRY CREDENTIALS.—Subparagraph (J) of section 34(h)(2) of the National Institute of Standards and Technology Act (15 U.S.C. 278s(h)(2)) is amended by inserting '', including the development of industry credentials'' after ''activities''.

(e) ADVICE FROM THE UNITED STATES MANUFACTURING COUNCIL.—The Secretary shall seek advice from the United States Manufacturing Council of the International Trade Administration of the Department of Commerce on matters concerning investment in and support of the manufacturing workforce within the Manufacturing USA Program.

TITLE III—NATIONAL SCIENCE FOUNDATION FOR THE FUTURE

Subtitle A—Preliminary Matters

SEC. 10301. SENSE OF CONGRESS.

It is the sense of Congress that—

(1) the National Science Foundation, the Department of Energy and its National Laboratories, and other key Federal agencies have carried out vital work supporting basic and applied research to create knowledge that is a key driver of the economy of the United States and a critical component of national security;

(2) openness to diverse perspectives and a focus on freedom from censorship and political bias will continue to make educational and research institutions in the United States beacons to thousands of students from across the world;

(3) increasing research and technology transfer investments, building regional capacity and reducing geographic disparity, strengthening supply chains, and increasing capabilities in key technology focus areas will enhance the competitive advantage and leadership of the United States in the global economy;

(4) the Federal Government must utilize the full talent and potential of the entire Nation by avoiding undue geographic concentration of research and STEM education funding, encouraging broader participation of populations underrepresented in STEM, and collaborating with nongovernment partners to ensure the leadership of the United States in technological innovation; and

(5) authorization and funding for investments in research, education, technology transfer, intellectual property, manufacturing, and other core strengths of the United States innovation ecosystem, including at the National Science Foundation and the Department of Energy, should be done on a bipartisan basis.

SEC. 10302. DEFINITIONS.

In this title:

(1) BOARD.—The term ''Board'' means the National Science Board.

(2) DIRECTOR.—The term ''Director'' means the Director of the National Science Foundation.

(3) NSF INCLUDES.—The term ''NSF INCLUDES'' means the initiative carried out under section 10323.

(4) STEM ECOSYSTEM.—The term ''STEM ecosystem'' means a local, regional, or statewide network, consortium, or multi-sector partnership, which may be led or co-led by a nonprofit organizational entity, that is operating in the United States with the goal of supporting participation in STEM study, activities, and career pathways as defined in the CoSTEM Annual Progress Report of 2020 with a broad range of non-Federal partners.

SEC. 10303. AUTHORIZATION OF APPROPRIATIONS.

(a) FISCAL YEAR 2023.—

(1) IN GENERAL.—There are authorized to be appropriated to the Foundation $11,897,480,000 for fiscal year 2023.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized under paragraph (1)—

(A) $9,050,000,000 is authorized to be appropriated to carry out research and related activities, of which—

(i) $55,000,000 is authorized to be appropriated for the Mid-Scale Research Infrastructure Program; and

(ii) $1,500,000,000 is authorized to be appropriated for the Directorate for Technology, Innovation, and Partnerships;

(B) $1,950,000,000 is authorized to be appropriated for STEM education, of which—

(i) $73,700,000 is authorized to be appropriated for the Robert Noyce Teacher Scholarship Program;

(ii) $59,500,000 is authorized to be appropriated for the NSF Research Traineeship Program;

(iii) $416,300,000 is authorized to be appropriated for the Graduate Research Fellowship Program;

(iv) $70,000,000 is authorized to be appropriated for the Cybercorps Scholarship for Service Program; and

(v) $350,000,000 is authorized to be appropriated for fellowships, traineeships, and scholarships described in section 10393;

(C) $249,000,000 is authorized to be appropriated for major research equipment and facilities construction, of which $76,250,000 is authorized to be appropriated for the Mid-Scale Research Infrastructure Program;

(D) $620,000,000 is authorized to be appropriated for agency operations and award management;

(E) $5,090,000 is authorized to be appropriated for the Office of the National Science Board; and

(F) $23,390,000 is authorized to be appropriated for the Office of the Inspector General.

(b) FISCAL YEAR 2024.—

(1) IN GENERAL.—There are authorized to be appropriated to the Foundation $15,646,930,000 for fiscal year 2024.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized under paragraph (1)—

(A) $12,050,000,000 is authorized to be appropriated to carry out research and related activities, of which—

(i) $60,000,000 is authorized to be appropriated for the Mid-Scale Research Infrastructure Program; and

(ii) $3,350,000,000 is authorized to be appropriated for the Directorate for Technology, Innovation, and Partnerships;

(B) $2,500,000,000 is authorized to be appropriated for STEM education, of which—

(i) $80,400,000 is authorized to be appropriated for the Robert Noyce Teacher Scholarship Program;

(ii) $64,910,000 is authorized to be appropriated for the NSF Research Traineeship Program;

(iii) $454,140,000 is authorized to be appropriated for the Graduate Research Fellowship Program;

(iv) $72,000,000 is authorized to be appropriated for the Cybercorps Scholarship for Service Program; and

(v) $800,000,000 is authorized to be appropriated for fellowships, traineeships, and scholarships described in section 10393;

(C) $355,000,000 is authorized to be appropriated for major research equipment and facilities construction, of which $80,000,000 is authorized to be appropriated for the Mid-Scale Research Infrastructure Program;

(D) $710,000,000 is authorized to be appropriated for agency operations and award management;

(E) $5,320,000 is authorized to be appropriated for the Office of the National Science Board; and

(F) $26,610,000 is authorized to be appropriated for the Office of the Inspector General.

(c) FISCAL YEAR 2025.—

(1) IN GENERAL.—There are authorized to be appropriated to the Foundation $16,706,670,000 for fiscal year 2025.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized under paragraph (1)—

(A) $12,850,000,000 is authorized to be appropriated to carry out research and related activities, of which—

(i) $70,000,000 is authorized to be appropriated for the Mid-Scale Research Infrastructure Program; and

(ii) $3,550,000,000 is authorized to be appropriated for the Directorate for Technology, Innovation, and Partnerships;

(B) $2,700,000,000 is authorized to be appropriated for STEM education, of which—

(i) $87,100,000 is authorized to be appropriated for the Robert Noyce Teacher Scholarship Program;

(ii) $70,320,000 is authorized to be appropriated for the NSF Research Traineeship Program;

(iii) $491,990,000 is authorized to be appropriated for the Graduate Research Fellowship Program;

(iv) $78,000,000 is authorized to be appropriated for the Cybercorps Scholarship for Service Program; and

(v) $900,000,000 is authorized to be appropriated for fellowships, traineeships, and scholarships described in section 10393;

(C) $370,000,000 is authorized to be appropriated for major research equipment and facilities construction, of which $85,000,000 is authorized to be appropriated for the Mid-Scale Research Infrastructure Program;

(D) $750,000,000 is authorized to be appropriated for agency operations and award management;

(E) $5,560,000 is authorized to be appropriated for the Office of the National Science Board; and

(F) $31,110,000 is authorized to be appropriated for the Office of the Inspector General.

(d) FISCAL YEAR 2026.—

(1) IN GENERAL.—There are authorized to be appropriated to the Foundation $17,832,420,000 for fiscal year 2026.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized under paragraph (1)—

(A) $13,800,000,000 is authorized to be appropriated to carry out research and related activities, of which—

(i) $75,000,000 is authorized to be appropriated for the Mid-Scale Research Infrastructure Program; and

(ii) $3,800,000,000 is authorized to be appropriated for the Directorate for Technology, Innovation, and Partnerships;

(B) $2,850,000,000 is authorized to be appropriated for STEM education, of which—

(i) $93,800,000 is authorized to be appropriated for the Robert Noyce Teacher Scholarship Program;

(ii) $75,730,000 is authorized to be appropriated for the NSF Research Traineeship Program;

(iii) $529,830,000 is authorized to be appropriated for the Graduate Research Fellowship Program;

(iv) $84,000,000 is authorized to be appropriated for the Cybercorps Scholarship for Service Program; and

(v) $950,000,000 is authorized to be appropriated for fellowships, traineeships, and scholarships described in section 10393;

(C) $372,000,000 is authorized to be appropriated for major research equipment and facilities construction, of which $90,000,000 is authorized to be appropriated for the Mid-Scale Research Infrastructure Program;

(D) $770,000,000 is authorized to be appropriated for agency operations and award management;

(E) $5,810,000 is authorized to be appropriated for the Office of the National Science Board; and

(F) $34,610,000 is authorized to be appropriated for the Office of the Inspector General.

(e) FISCAL YEAR 2027.—

(1) IN GENERAL.—There are authorized to be appropriated to the Foundation $18,919,180,000 for fiscal year 2027.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized under paragraph (1)—

(A) $14,700,000,000 is authorized to be appropriated to carry out research and related activities, of which—

(i) $80,000,000 is authorized to be appropriated for the Mid-Scale Research Infrastructure Program; and

(ii) $4,100,000,000 is authorized to be appropriated for the Directorate for Technology, Innovation, and Partnerships;

(B) $3,000,000,000 is authorized to be appropriated for STEM education, of which—

(i) $100,500,000 is authorized to be appropriated for the Robert Noyce Teacher Scholarship Program;

(ii) $81,140,000 is authorized to be appropriated for the NSF Research Traineeship Program;

(iii) $567,680,000 is authorized to be appropriated for the Graduate Research Fellowship Program;

(iv) $90,000,000 is authorized to be appropriated for the Cybercorps Scholarship for Service Program; and

(v) $1,000,000,000 is authorized to be appropriated for fellowships, traineeships, and scholarships described in section 10393;

(C) $375,000,000 is authorized to be appropriated for major research equipment and facilities construction, of which $100,000,000 is authorized to be appropriated for the Mid-Scale Research Infrastructure Program;

(D) $800,000,000 is authorized to be appropriated for agency operations and award management;

(E) $6,070,000 is authorized to be appropriated for the Office of the National Science Board; and

(F) $38,110,000 is authorized to be appropriated for the Office of the Inspector General.

Subtitle B—STEM Education

SEC. 10311. PREK–12 STEM EDUCATION.

(a) NATIONAL ACADEMIES STUDY.—Not later than 120 days after the date of enactment of this Act, the Director shall enter into an agreement with the National Academies to conduct a study to—

(1) review the research literature and identify research gaps regarding the interconnected factors that foster and hinder successful implementation of promising, evidence-based PreK–12 STEM education innovations at the local, regional, and national level;

(2) present a compendium of promising, evidence-based PreK–12 STEM education practices, models, programs, and technologies;

(3) identify barriers to widespread and sustained implementation of such innovations; and

(4) make recommendations to the Foundation, the Department of Education, the National Science and Technology Council's Committee on Science, Technology, Engineering, and Mathematics Education, State and local educational agencies, and other relevant stakeholders on measures to address such barriers.

(b) SUPPORTING PREK–12 INFORMAL STEM OPPORTUNITIES.—Section 3 of the STEM Education Act of 2015 (42 U.S.C. 1862q) is amended by adding at the end the following:

''(c) PreK–12 INFORMAL STEM.—

''(1) IN GENERAL.—The Director of the National Science Foundation shall make awards, through existing programs where appropriate to institutions of higher education and nonprofit organizations (or consortia of such intuitions or organizations) on a merit-reviewed, competitive basis for research on effective approaches to engaging students in PreK–12, including students from groups historically underrepresented in STEM and rural students.

''(2) PURPOSES.—The purposes of this subsection are to—

''(A) provide effective, compelling, and engaging means for teaching and reinforcing fundamental STEM concepts to PreK–12 students;

''(B) expand the STEM workforce pipeline by increasing the number of youth in the United States exposed to STEM from an early age and encourage them to pursue careers in STEM-related fields; and

''(C) broaden participation of groups historically underrepresented in STEM and rural students, in the STEM workforce.

''(3) USE OF FUNDS.—

''(A) IN GENERAL.—Awards made under this subsection shall support research and development on innovative before-school, after-school, out-of-school, or summer activities that are designed to encourage interest, engagement, and skills development in STEM, including for students from groups historically underrepresented in STEM and rural students.

''(B) PERMITTED ACTIVITIES.—The research and development activities described in subparagraph (A) may include—

''(i) the provision of programming described in such subparagraph for the purpose of research described in such subparagraph;

''(ii) the use of a variety of engagement methods, including cooperative and hands-on learning;

''(iii) exposure of students to role models in the fields of STEM and near-peer mentors;

''(iv) training of informal learning educators, youth-serving professionals, and volunteers who lead informal STEM programs in using evidence-based methods consistent with the target student population being served;

''(v) education of students on the relevance and significance of STEM careers, provision of academic advice and assistance, and activities designed to help students make real-world connections to STEM content;

''(vi) the preparation of students to attend events, competitions, and academic programs that provide content expertise and encourage career exposure in STEM, which may include the purchase of parts and supplies needed to prepare for participation in such competitions;

''(vii) activities designed to engage parents and families of students in PreK–12 in STEM;

''(viii) innovative strategies to engage students, such as using leadership skills and outcome measures to impart youth with the confidence to pursue STEM coursework and academic study;

''(ix) coordination with STEM-rich environments, including other nonprofit, nongovernmental organizations, out-of- classroom settings, institutions of higher education, vocational facilities, corporations, museums, or science centers; and

''(x) the acquisition of instructional materials or technology-based tools to conduct applicable award activity.

''(4) APPLICATION.—An applicant seeking funding under this subsection shall submit an application at such time, in such manner, and containing such information as may be required by the Director. Applications that include or partner with a nonprofit, nongovernmental organization that has extensive experience and expertise in increasing the participation of students in PreK–12 in STEM are encouraged. At a minimum, the application shall include the following:

''(A) A description of the target audience to be served by the research activity or activities for which such funding is sought.

''(B) A description of the process for recruitment and selection of students to participate in such activities.

''(C) A description of how such activity or activities may inform programming that engages students in PreK–12 in STEM.

''(D) A description of how such activity or activities may inform programming that promotes student academic achievement in STEM.

''(E) An evaluation plan that includes, at a minimum, the use of outcome-oriented measures to determine the impact and efficacy of programming being researched.

''(5) EVALUATIONS.—Each recipient of an award under this subsection shall provide, at the conclusion of every year during which the award funds are received, a report in a form prescribed by the Director.

''(6) ENCOURAGE APPLICATIONS.—In making awards under this subsection, the Director shall encourage applications which, for the purpose of the activity or activities funded through the award, are from or include eligible nonprofit programs serving students that attend elementary schools or secondary schools (including high schools) that—

''(A) are implementing comprehensive support and improvement activities or targeted support and improvement activities under paragraph (1) or (2) of section 1111(d) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311(d)); or

''(B) serve high percentages of students who are eligible for a free or reduced-price lunch under the Richard B. Russell National School Lunch Act (42 U.S.C. 1751 et seq.) (which, in the case of a high school, may be calculated using

comparable data from the schools that feed into the high school).

''(7) ACCOUNTABILITY AND DISSEMINATION.—

''(A) EVALUATION REQUIRED.—The Director shall evaluate the activities established under this subsection. Such evaluation shall—

''(i) use a common set of benchmarks and tools to assess the results of research conducted under such awards; and

''(ii) to the extent practicable, integrate the findings of the research resulting from the activity or activities funded through the award with the current research on serving students with respect to the pursuit of degrees or careers in STEM, including underrepresented and rural students, in PreK–12.

''(B) REPORT ON EVALUATIONS.—Not later than 180 days after the completion of the evaluation under subparagraph (A), the Director shall submit to Congress and make widely available to the public a report that includes—

''(i) the results of the evaluation; and

''(ii) any recommendations for administrative and legislative action that could optimize the effectiveness of the program under this subsection.

''(8) COORDINATION.—In carrying out this subsection, the Director shall, for purposes of enhancing program effectiveness and avoiding duplication of activities, consult, and coordinate with other relevant Federal agencies.''.

(c) [LOG 907 S2522] NATIONAL STEM TEACHER CORPS PILOT.—

(1) PURPOSE.—It is the purpose of this subsection to elevate the profession of STEM teaching by establishing a National STEM Teacher Corps pilot program to recognize outstanding STEM teachers in our Nation's classrooms, rewards them for their accomplishments, elevates their public profile, and creates rewarding career paths to which all STEM teachers can aspire, both to prepare future STEM researchers and to create a scientifically literate public.

(2) DEFINITIONS.—In this subsection:

(A) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the National STEM Teacher Corps.

(B) ELIGIBLE ENTITY.—The term ''eligible entity'' means—

(i) an institution of higher education; or

(ii) a consortium consisting of an institution of higher education and one or more of the following:

(I) A State educational agency (as defined in section 8101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801)).

(II) A local educational agency (as defined in section 8101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801)).

(III) An education nonprofit Association.

(IV) A cross sector STEM organization.

(V) A private entity, including a STEM-related business.

(C) HIGH-NEED SCHOOL.—The term ''high-need school'' has the meaning given the term in section 2211(b) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6631(b)).

(D) PROFESSIONAL DEVELOPMENT.—The term ''professional Development'' has the meaning given the term in section 8101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

(E) CORPS ALLIANCE.—The term ''Corps Alliance'' means a regionally or topically based award under this subsection.

(F) NATIONAL STEM TEACHER CORPS ADVISORY BOARD.—The term ''National STEM Teacher Corps Advisory Board'' means the Advisory Board for the National STEM Teacher Corps established under paragraph (5).

(3) ESTABLISHMENT OF NATIONAL STEM TEACHER CORPS.—The Director may, subject to the availability of appropriations, establish within the Foundation, a National STEM Teacher Corps 10-year pilot program to be administered by the Administrator, who shall be appointed by the Director. As appropriate, the Director may use existing NSF programs to establish and execute this program.

(4) DUTIES OF THE ADMINISTRATOR.—The Administrator shall—

(A) create a process and standards for selection of eligible applicants to become members of the National STEM Teacher Corps, including—

(i) uniform selection criteria that includes—

(I) deep knowledge of STEM content and pedagogy;

(II) a passion for STEM subjects and dedication to teaching, evidence of leadership skills, and potential for continued career growth as an educator; and

(III) demonstrated experience increasing STEM student achievement and STEM participation rates for all students, particularly those from rural and high-need schools; and

(ii) a uniform selection process, including a comprehensive application that includes recommendations and other relevant professional information;

(B) promote the National STEM Teacher Corps and elevate best practices that emerge from the National STEM Teacher Corps to a national audience;

(C) evaluate the operation and effectiveness of the Corps alliances; and

(D) evaluate the overall and long-term impact of the National STEM Teacher Corps by—

(i) documenting, monitoring, and assessing the program outcomes or impact on the STEM careers of participants; and

(ii) documenting, monitoring, and assessing the program outcomes for the STEM education profession nationwide, particularly for rural and high-need schools.

(5) NATIONAL STEM TEACHER CORPS ADVISORY BOARD.—

(A) ESTABLISHMENT.—There is established a National STEM Teacher Corps Advisory Board to advise the Director on matters pertaining to the National STEM Teacher Corps for the length of the pilot program.

(B) COMPOSITION.—

(i) IN GENERAL.—The membership of the National STEM Teacher Corps Advisory Board shall—

(I) be appointed by the Director;

(II) include a representative from each of the following: School leaders, STEM researchers, STEM education researchers, Business leaders, PreK–12 STEM educators, and Students pursuing a postsecondary STEM degree; and

(III) be geographically diverse.

(ii) EXISTING COMMITTEE.—The Director may assign the duties of the National STEM Teacher Corps Advisory Board to another advisory committee of the Foundation.

(6) DUTIES OF THE CORPS ALLIANCES.—Subject to the availability of appropriated funds, the Administrator may make awards on a competitive, merit-review basis, to establish Corps alliances at eligible entities. Activities carried out by such alliances shall include—

(A) engaging local partners, which may include local educational agencies, institutions of higher education, STEM organizations, or education nonprofit organizations, to—

(i) develop and serve the community of National STEM Teacher Corps members within the region or topic area, in coordination with local partners to carry out day-to-day activities;

(ii) coordinate professional development activities, including activities led by National STEM Teacher Corps members;

(iii) connect National STEM Teacher Corps members with existing educator professional development programs and coordinate members' involvement as cooperating teachers or mentors;

(iv) seek opportunities to involve teachers who are not members of the National STEM Teacher Corps to participate in National STEM Teacher Corps activities; and

(v) build partnerships with existing education organizations and other efforts by State educational agencies and local educational agencies that operate programs relevant to the National STEM Teacher Corps and its activities;

(B) recruiting eligible applicants, with a focus on recruiting diverse STEM educators to advance equity based on race, ethnicity, sex, socioeconomic status, age, disability status, geography, and language ability;

(C) screening, interviewing, and selecting members of the National STEM Teacher Corps using procedures and standards provided by the Administrator;

(D) coordinating the online network that supports all National STEM Teacher Corps members in the region or topic area;

(E) convening occasional meetings of National STEM Teacher Corps members in a region or topic area;

(F) creating opportunities for the professional growth of National STEM Teacher Corps members, with a focus on increasing STEM student achievement and STEM participation rates for all students, particularly those from rural and high-need schools; and

(G) supporting the retention and success of National STEM Teacher Corps members in the region or topic area.

(7) DUTIES OF MEMBERS OF THE NATIONAL STEM TEACHER CORPS.—An applicant that is selected by a Corps alliance to be a member of the National STEM Teacher Corps shall—

(A) serve a 4-year term with a possibility of reappointment;

(B) receive an annual stipend in an amount not less than $10,000; and

(C) have substantial responsibilities, including—

(i) working with other members of the National STEM Teacher Corps to develop and improve innovative teaching practices, including practices such as inquiry-based learning;

(ii) participating in professional development in innovative teaching methodology and mentorship; and

(iii) continuing to excel in teaching the member's own students, with a focus on advancing equity by spending additional time teaching and coaching underserved students to increase STEM student achievement and STEM participation rates for students from rural and high-need schools.

(8) EVALUATION.—The Director, acting through the Administrator, shall submit a report to Congress after the third year of the pilot program that includes—

(A) an assessment, drawing on the evaluations the Administrator shall conduct under subparagraphs (C) and (D) of paragraph (4), and other sources of information, of the effectiveness of the pilot program in recruiting and retaining high-quality STEM teachers in the selected regions or topic areas, particularly in high-need and rural schools; and

(B) if deemed effective, a proposal to Congress for permanent implementation of the pilot program.

(9) SUNSET.—The authority to carry out this subsection shall terminate on the date that is 15 years after the date of enactment of this Act.

(10) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated $60,000,000 for each of fiscal years 2023 through 2032 to carry out this subsection.

SEC. 10312. UNDERGRADUATE STEM EDUCATION.

(a) RESEARCH ON STEM EDUCATION AND WORKFORCE NEEDS.—The Director shall make awards, on a competitive basis, to four-year institutions of higher education or nonprofit organizations (or consortia of such institutions or organizations) to support research and development activities to—

(1) encourage greater collaboration and coordination between institutions of higher education and industry to enhance education, foster hands-on learn experiences, and improve alignment with workforce needs;

(2) understand the current composition of the STEM workforce and the factors that influence growth, retention, and development of that workforce;

(3) increase the size, diversity, capability, and flexibility of the STEM workforce; and

(4) increase dissemination and widespread adoption of effective practices in undergraduate education and workforce development.

(b) ADVANCED TECHNOLOGICAL EDUCATION PROGRAM UPDATE.—Section 3(b) of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i(b)) is amended to read as follows:

''(b) CENTERS OF SCIENTIFIC AND TECHNICAL EDUCATION.—

''(1) IN GENERAL.—The Director shall make awards for the establishment of centers of excellence, in advanced-technology fields, among associate-degree-granting colleges. Centers shall meet one or both of the following criteria:

''(A) Exceptional instructional programs in advanced-technology fields.

''(B) Excellence in undergraduate STEM education.

''(2) PURPOSES.—The centers shall serve as national and regional clearinghouses and models for the benefit of both colleges and secondary schools, and shall provide seminars and programs to disseminate model curricula and model teaching methods and instructional materials to other associate-degree-granting colleges.

''(3) NETWORKS.—The centers may enter into partnerships with other institutions of higher education, nonprofit organizations, and stakeholder groups, or a consortium thereof, to develop networks to—

''(A) coordinate research, training, and education activities funded by awards under subsection (a);

''(B) share information and best practices; or

''(C) promote collaboration between academic institutions, workforce development programs, labor organizations, and industry to communicate and meet workforce education and training needs.''.

(c) INNOVATIONS IN STEM EDUCATION AT COMMUNITY COLLEGES.—

(1) IN GENERAL.—The Director shall make awards on a merit-reviewed, competitive basis to institutions of higher education or nonprofit organizations (or consortia of such institutions or organizations) to advance research on the nature of learning and teaching at community colleges and to improve outcomes for students who enter the workforce upon completion of their STEM degree or credential or transfer to 4-year institutions, including by—

(A) examining how to scale up successful programs at community colleges that are improving student outcomes in foundational STEM courses;

(B) supporting research on effective STEM teaching practices in community college settings;

(C) designing and developing new STEM curricula;

(D) providing STEM students with hands-on training and research experiences, internships, and other experiential learning opportunities;

(E) increasing access to high quality STEM education through new technologies;

(F) re-skilling or up-skilling incumbent workers for new STEM jobs;

(G) building STEM career and seamless transfer pathways; and

(H) developing novel mechanisms to identify and recruit talent into STEM programs, in particular talent from groups historically underrepresented in STEM.

(2) PARTNERSHIPS.—In carrying out activities under this subsection, the Director shall encourage applications to develop, enhance, or expand cooperative STEM education and training partnerships between institutions of higher education, industry, and labor organizations.

(d) IMPROVING ACCESS TO STEM EDUCATION AT CAREER AND TECHNICAL EDUCATION INSTITUTIONS.—

(1) IN GENERAL.—The Director shall make awards, on a competitive basis, to institutions of higher education (including postsecondary vocational institutions) to support career and technical education in STEM and computer science related fields.

(2) PRIORITY.—In making awards under this subsection, the Director shall give priority to institutions that demonstrate effective strategies to recruit and provide career and technical education to veterans and members of the Armed Forces transitioning to the private sector workforce.

(3) CAREER AND TECHNICAL EDUCATION DEFINED.—In this subsection, the term ''career and technical education'' has the meaning given that term in section 3 of the Carl D. Perkins Career and Technical Education Act of 2006 (20 U.S.C. 2302).

(e) COURSE-BASED UNDERGRADUATE RESEARCH EXPERIENCES.—

(1) IN GENERAL.—The Director shall carry out a 4-year pilot program under which the Director shall make awards, on a competitive basis, to institutions of higher education and nonprofit organizations (or consortia of such institutions or organizations) to establish a total of not fewer than five Centers to develop and scale up successful models for providing undergraduate students with hands-on, course-based research experiences.

(2) USE OF FUNDS.—Awards made under this paragraph shall be used to—

(A) develop, assess, and disseminate models for providing undergraduate students with course-based research experiences across STEM disciplines and education levels;

(B) identify and address opportunities and challenges in facilitating implementation across a broad range of institution types, including historically Black colleges and universities, Tribal Colleges or Universities, minority serving institutions and community colleges;

(C) identify and develop best practices to address barriers for faculty, including institutional culture, resources, and incentive structures;

(D) identify and address factors that may facilitate or discourage participation by students from all backgrounds;

(E) provide faculty with curriculum, professional development, training, networking opportunities, and other support to enable the development, adaptation, or expansion of a course-based research experience; and

(F) collect data and carry out research to evaluate the impacts of course- based undergraduate research experiences on the STEM workforce.

(3) PARTNERSHIPS.—In making awards under this paragraph, the Director shall consider the extent to which the proposed Center will establish partnerships among multiple types of academic institutions, including community colleges, emerging research institutions, EPSCoR institutions, historically Black colleges and universities, Tribal Colleges or Universities, and minority-serving institutions, the private sector, and other relevant stakeholders in supporting programs and activities to facilitate faculty training and the widespread and sustained implementation of promising, evidence-based practices, models, programs, and curriculum.

(4) REPORT.—Not later than 180 days after the date on which the pilot program is completed, the Director shall submit to Congress a report that includes—

(A) an assessment, that includes feedback from the research community, of the effectiveness of the pilot program in increasing the number, diversity, and workforce readiness of STEM graduates; and

(B) if determined to be effective, a plan for permanent implementation of the pilot program.

(f) ADVANCED TECHNOLOGICAL MANUFACTURING ACT.—

(1) FINDINGS AND PURPOSE.—Section 2 of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862h) is amended—

(A) in subsection (a)—

(i) in paragraph (3), by striking ''science, mathematics, and technology'' and inserting ''science, technology, engineering, and mathematics or STEM'';

(ii) in paragraph (4), by inserting ''educated'' and before ''trained''; and

(iii) in paragraph (5), by striking ''scientific and technical education and training'' and inserting ''STEM education and training''; and

(B) in subsection (b)—

(i) in paragraph (2), by striking ''mathematics and science'' and inserting ''STEM fields''; and

(ii) in paragraph (4), by striking ''mathematics and science instruction'' and inserting ''STEM instruction''.

(2) MODERNIZING REFERENCES TO STEM.—Section 3 of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i) is amended—

*(A) in the section heading, by striking ''**SCIENTIFIC AND TECHNICAL EDUCATION**'' and inserting ''**STEM EDUCATION**'';*

(B) in subsection (a)—

(i) in the subsection heading, by striking ''SCIENTIFIC AND TECHNICAL EDUCATION'' and inserting ''STEM EDUCATION'';

(ii) in the matter preceding paragraph (1)—

(I) by inserting ''and education to prepare the skilled technical workforce to meet workforce demands'' before '', and to improve'';

(II) by striking ''core education courses in science and mathematics'' and inserting ''core education courses in STEM fields'';

(III) by inserting ''veterans and individuals engaged in'' before ''work in the home''; and

(IV) by inserting ''and on building a pathway from secondary schools to associate-degree-granting institutions, to careers that require technical training'' before '', and shall be designed'';

(iii) in paragraph (1)—

(I) by inserting ''and study'' after ''development''; and

(II) by striking ''core science and mathematics courses'' and inserting ''core STEM courses'';

(iv) in paragraph (2), by striking ''science, mathematics, and advanced-technology fields'' and inserting ''STEM and advanced- technology fields'';

(v) in paragraph (3)(A), by inserting ''to support the advanced- technology industries that drive the competitiveness of the United States in the global economy'' before the semicolon at the end;

(vi) in paragraph (4), by striking ''scientific and advanced- technology fields'' and inserting ''STEM and advanced-technology fields''; and

(vii) in paragraph (5), by striking ''advanced scientific and technical education'' and inserting ''advanced STEM and advanced- technology'';

(C) in subsection (c)—

(i) in paragraph (1)—

(I) in subparagraph (A)—

(aa) in the matter preceding clause (i), by striking ''to encourage'' and all that follows through ''such means as—'' and inserting ''to encourage the development of career and educational pathways with multiple entry and exit points leading to credentials and degrees, and to assist students pursuing pathways in STEM fields to transition from associate-degree-granting colleges to bachelor- degree-granting institutions, through such means as—'';

(bb) in clause (i), by striking ''to ensure'' and inserting ''to develop articulation agreements that ensure''; and

(cc) in clause (ii), by striking ''courses at the bachelor-degree-granting institution'' and inserting ''the career and educational pathways supported by the articulation agreements'';

(II) in subparagraph (B)—

(aa) in clause (i), by inserting ''veterans and individuals engaged in'' before ''work in the home'';

(bb) in clause (iii)—

(AA) by striking ''bachelor's-degree- granting institutions'' and inserting ''institutions or work sites''; and

(BB) by inserting ''or industry internships'' after ''summer programs''; and

(cc) by striking the flush text following clause (iv); and

(III) by striking subparagraph (C);

(ii) in paragraph (2)—

(I) by striking ''mathematics and science programs'' and inserting ''STEM programs'';

(II) by inserting ''and, as appropriate, elementary schools,'' after ''with secondary schools'';

(III) by striking ''mathematics and science education'' and inserting ''STEM education'';

(IV) by striking ''secondary school students'' and inserting ''students at these schools'';

(V) by striking ''science and advanced-technology fields'' and inserting ''STEM and advanced-technology fields''; and

(VI) by striking ''agreements with local educational agencies'' and inserting ''articulation agreements or dual credit courses with local secondary schools, or other means as the Director determines appropriate,''; and

(iii) in paragraph (3)—

(I) by striking subparagraph (B);

(II) by striking ''shall—''and all that follows through ''establish a'' and inserting ''shall establish a'';

(III) by striking ''the fields of science, technology, engineering, and mathematics'' and inserting ''STEM fields''; and

(IV) by striking ''; and'' and inserting '', including jobs at Federal and academic laboratories.'';

(D) in subsection (d)(2)—

(i) in subparagraph (D), by striking ''and'' after the semicolon;

(ii) in subparagraph (E), by striking the period at the end and inserting a ''; and''; and

(iii) by adding at the end the following:

''(F) as appropriate, applications that apply the best practices for STEM education and technical skills education through distance learning or in a simulated work environment, as determined by research described in subsection (f); and'';

(E) in subsection (g), by striking the second sentence;

(F) in subsection (h)(1)—

(i) in subparagraph (A), by striking ''2022'' and inserting ''2026'';

(ii) in subparagraph (B), by striking ''2022'' and inserting ''2026''; and

(iii) in subparagraph (C)—

(I) by striking ''up to $2,500,000'' and inserting ''not less than $3,000,000''; and

(II) by striking ''2022'' and inserting ''2026'';

(G) in subsection (i)—

(i) by striking paragraph (3); and

(ii) by redesignating paragraphs (4) and (5) as paragraphs (3) and (4), respectively; and

(H) in subsection (j)—

(i) by striking paragraph (1) and inserting the following:

''(1) the term advanced-technology includes technological fields such as advanced manufacturing, agricultural-, biological- and chemical-technologies, energy and environmental technologies, engineering technologies, information technologies, micro and nano-technologies, cybersecurity technologies, geospatial technologies, and new, emerging technology areas;'';

(ii) in paragraph (4), by striking ''separate bachelor-degree- granting institutions'' and inserting ''other entities'';

(iii) by striking paragraph (7);

(iv) by redesignating paragraphs (8) and (9) as paragraphs (7) and (8), respectively;

(v) in paragraph (7), as redesignated by clause (iv), by striking ''and'' after the semicolon;

(vi) in paragraph (8), as redesignated by clause (iv)—

(I) by striking ''mathematics, science, engineering, or technology'' and inserting ''science, technology, engineering, or mathematics''; and

(II) by striking the period at the end and inserting ''; and''; and

(vii) by adding at the end the following:

''(9) the term skilled technical workforce has the meaning given such term in section 4(b) of the Innovations in Mentoring, Training, and Apprenticeships Act (42 U.S.C. 1862p).''.

(3) AUTHORIZATION OF APPROPRIATIONS.—Section 5 of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862j) is amended to read as follows:

''SEC. 5. AUTHORIZATION OF APPROPRIATIONS.

''There are authorized to be appropriated to the Director for carrying out sections 2 through 4 $150,000,000 for each of fiscal years 2023 through 2027.''.

SEC. 10313. GRADUATE STEM EDUCATION.

(a) MENTORING AND PROFESSIONAL DEVELOPMENT.—

(1) MENTORING PLANS.—

(A) UPDATE.—Section 7008(a) of the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Act (42 U.S.C. 1862o(a)) is amended by—

(i) inserting ''and graduate student'' after ''postdoctoral''; and

(ii) inserting ''The requirement may be satisfied by providing such individuals with access to mentors, including individuals not listed on the award.'' after ''review criterion.''.

(B) EVALUATION.—Not later than 120 days after the date of enactment of this Act, the Director shall enter into an agreement with a qualified independent organization to evaluate the effectiveness of the postdoctoral mentoring plan requirement for improving mentoring for Foundation-supported postdoctoral researchers.

(2) CAREER EXPLORATION.—

(A) IN GENERAL.—The Director shall make awards, on a competitive basis, to institutions of higher education and nonprofit organizations (or consortia of such institutions or organizations) to develop innovative approaches for facilitating career exploration of academic and nonacademic career options and for providing opportunity-broadening experiences, including work-integrated opportunities, for graduate students and postdoctoral scholars that can then be considered, adopted, or adapted by other institutions and to carry out research on the impact and outcomes of such activities.

(B) REVIEW OF PROPOSALS.—In selecting award recipients under this subparagraph, the Director shall consider, at a minimum—

(i) the extent to which the administrators of the institution are committed to making the proposed activity a priority; and

(ii) the likelihood that the institution or organization will sustain or expand the proposed activity effort beyond the period of the award.

(3) DEVELOPMENT PLANS.—The Director shall require that annual project reports for awards that support graduate students and postdoctoral scholars include certification by the principal investigator that each graduate student and postdoctoral scholar receiving substantial support from such award, as determined by has developed and annually updated an individual development plan to map educational goals, career exploration, and professional development.

(4) PROFESSIONAL DEVELOPMENT SUPPLEMENT.—The Director shall carry out a five-year pilot initiative to award up to 2,500 administrative supplements of up to $2,000 to existing research awards annually, on a competitive basis, to support professional development experiences for graduate students and postdoctoral researchers who receive a substantial portion of their support under such award, as determined by the Director. Not more than 10 percent of supplements awarded under this subparagraph may be used to support professional development experiences for postdoctoral researchers.

(5) GRADUATE EDUCATION RESEARCH.—The Director shall make awards, on a competitive basis, to institutions of higher education or nonprofit organizations (or consortia of such institutions or organizations) to support research on the graduate education system and outcomes of various interventions and policies, including—

(A) the effects of traineeships, fellowships, internships, and teaching and research assistantships on outcomes for graduate students;

(B) the effects of graduate education and mentoring policies and procedures on degree completion, including differences by—

(i) sex, race and ethnicity, and citizenship; and

(ii) student debt load;

(C) the development and assessment of new or adapted interventions, including approaches that improve mentoring relationships, develop conflict management skills, and promote healthy research teams; and

(D) research, data collection, and assessment of the state of graduate student mental health and wellbeing, factors contributing to and consequences of poor graduate student mental health, and the development, adaptation, and assessment of evidence-based strategies and policies to support emotional wellbeing and mental health.

(b) GRADUATE RESEARCH FELLOWSHIP PROGRAM UPDATE.—

(1) SENSE OF CONGRESS.—It is the sense of Congress that the Foundation should increase the number of new graduate research fellows supported annually over the next 5 years to no fewer than 3,000 fellows.

(2) PROGRAM UPDATE.—Section 10 of the National Science Foundation Act of 1950 (42 U.S.C. 1869) is amended—

(A) in subsection (a), by inserting ''and as will address national workforce demand in critical STEM fields'' after ''throughout the United States'';

(B) in subsection (b), by striking ''of $12,000'' and inserting ''of at least $16,000''; and

(C) by adding at the end the following:

''(c) OUTREACH.—The Director shall ensure program outreach to recruit fellowship applicants from fields of study that are in areas of critical national need from all regions of the country, and from historically underrepresented populations in STEM.''.

(3) CYBERSECURITY SCHOLARSHIPS AND GRADUATE FELLOWSHIPS.—The Director shall ensure that students pursuing master's degrees and doctoral degrees in fields relating to cybersecurity are eligible to apply for scholarships and graduate fellowships under the Graduate Research Fellowship Program under section 10 of the National Science Foundation Act of 1950 (42 U.S.C. 1869).

(c) STUDY ON GRADUATE STUDENT FUNDING.—

(1) IN GENERAL.—Not later than 120 days after the date of enactment of this Act, the Director shall enter into an agreement with a qualified independent organization to evaluate—

(A) the role of the Foundation in supporting graduate student education and training through fellowships, traineeships, and other funding models; and

(B) the impact of different funding mechanisms on graduate student experiences and outcomes, including whether such mechanisms have differential impacts on subsets of the student population.

(2) REPORT.—Not later than 1 year after the date of enactment of this Act, the Director shall publish the results of the evaluation carried out under paragraph (1), including a recommendation for the appropriate balance between fellowships, traineeships, and other funding models.

(d) [LOG 165 H10304(G)/S2208] AI SCHOLARSHIP-FOR-SERVICE.—

(1) DEFINITION OF EXECUTIVE AGENCY.—In this subsection, the term ''executive agency'' has the meaning given the term ''Executive agency'' in section 105 of title 5, United States Code.

(2) AI SCHOLARSHIP-FOR-SERVICE INITIATIVE REPORT.—Not later than 1 year after the date of enactment of this Act, the Director, in coordination with the Office of Personnel Management, shall submit to the Committee on Commerce, Science, and Transportation of the Senate, the Committee on Science, Space, and Technology of the House of Representatives, the Committee on Homeland Security and Governmental Affairs of the Senate, and the Committee on Oversight and Reform of the House of Representatives a report on the need and feasibility, and if appropriate, plans to implement a program to recruit and train the next generation of artificial intelligence professionals to meet the needs of Federal, State, local, and Tribal governments. The report shall include—

(A) recent statistical data on the size, composition, and educational requirements of the Federal AI workforce, including an assessment of current and future demand for additional AI professionals across the Federal Government;

(B) an assessment of the capacity of institutions of higher education to produce graduates with degrees, certifications, and relevant skills related to artificial intelligence that meet the current and future needs of the Federal workforce; and

(C) an evaluation of the need for and feasibility of establishing a scholarship-for-service program to recruit and train the next generation of artificial intelligence professionals to meet the needs of Federal, State, local, and Tribal governments, including opportunities for leveraging existing processes and resources for administering the Federal Cyber Scholarship-for-Service Program established under section 302 of the Cybersecurity Enhancement Act of 2014 (15 U.S.C. 7442) in standing up such a program.

(3) PROGRAM ESTABLISHMENT.—Upon submitting the report required in paragraph (2), the Director, in coordination with the Director of the Office of Personnel Management, the Director of the National Institute of Standards and Technology, and the heads of other agencies with appropriate scientific knowledge, is authorized to establish a Federal artificial intelligence scholarship-for-service program (referred to in this section as the Federal AI Scholarship-for-Service Program) to recruit and train artificial intelligence professionals to lead and support the application of artificial intelligence to the missions of Federal, State, local, and Tribal governments.

(4) QUALIFIED INSTITUTION OF HIGHER EDUCATION.—The Director, in coordination with the heads of other agencies with appropriate scientific knowledge, shall establish criteria to designate qualified institutions of higher education that shall be eligible to participate in the Federal AI Scholarship-for-Service program. Such criteria shall include—

(A) measures of the institution's demonstrated excellence in the education of students in the field of artificial intelligence; and

(B) measures of the institution's ability to attract and retain a diverse and nontraditional student population in the fields of science, technology, engineering, and mathematics, which may include the ability to attract women, minorities, and individuals with disabilities.

(5) PROGRAM DESCRIPTION AND COMPONENTS.—The Federal AI Scholarship-for-Service Program shall—

(A) provide scholarships through qualified institutions of higher education to students who are enrolled in programs of study at institutions of higher education leading to degrees or concentrations in or related to the artificial intelligence field;

(B) provide the scholarship recipients with summer internship opportunities or other meaningful temporary appointments in the Federal workforce focusing on AI projects or research;

(C) prioritize the employment placement of scholarship recipients in executive agencies;

(D) identify opportunities to promote multidisciplinary programs of study that integrate basic or advanced AI training with other fields of study, including those that address the social, economic, legal, and ethical implications of human interaction with AI systems;

(E) support capacity-building education research programs that will enable postsecondary educational institutions to expand their ability to train the next-generation AI workforce, including AI researchers and practitioners;

(F) create courses or training programs in technology ethics for students receiving scholarships; and

(G) award fellowships to masters and doctoral students who are pursuing degrees or research in artificial intelligence and related fields, including in the field of technology ethics.

(6) SCHOLARSHIP AMOUNTS.—Each scholarship under paragraph (5) shall be in an amount that covers the student's tuition and fees at the institution for not more than 3 years and provides the student with an additional stipend.

(7) POST-AWARD EMPLOYMENT OBLIGATIONS.—Each scholarship recipient, as a condition of receiving a scholarship under the program, shall enter into an agreement under which the recipient agrees to work for a period equal to the length of the scholarship, following receipt of the student's degree, in the AI mission of—

(A) an executive agency;

(B) Congress, including any agency, entity, office, or commission established in the legislative branch;

(C) an interstate agency;

(D) a State, local, or Tribal government, which may include instruction in AI-related skill sets in a public school system; or

(E) a State, local, or Tribal government-affiliated nonprofit entity that is considered to be critical infrastructure (as defined in section 1016(e) of the USA Patriot Act (42 U.S.C. 5195c(e))).

(8) HIRING AUTHORITY.—

(A) APPOINTMENT IN EXCEPTED SERVICE.—Notwithstanding any provision of chapter 33 of title 5, United States Code, governing appointments in the competitive service, an executive agency may appoint an individual who has completed the eligible degree program for which a scholarship was awarded to a position in the excepted service in the executive agency.

(B) NONCOMPETITIVE CONVERSION.—Except as provided in subparagraph (D), upon fulfillment of the service term, an employee appointed under subparagraph (A) may be converted noncompetitively to term, career-conditional, or career appointment.

(C) TIMING OF CONVERSION.—An executive agency may noncompetitively convert a term employee appointed under subparagraph (B) to a career-conditional or career appointment before the term appointment expires.

(D) AUTHORITY TO DECLINE CONVERSION.—An executive agency may decline to make the noncompetitive conversion or appointment under subparagraph (B) for cause.

(9) ELIGIBILITY.—To be eligible to receive a scholarship under this section, an individual shall—

(A) be a citizen or lawful permanent resident of the United States;

(B) demonstrate a commitment to a career in advancing the field of AI;

(C) be—

(i) a full-time student in an eligible degree program at a qualified institution of higher education, as determined by the Director;

(ii) a student pursuing a degree on a less than full-time basis, but not less than half-time basis; or

(iii) an AI faculty member on sabbatical to advance knowledge in the field; and

(D) accept the terms of a scholarship under this section.

(10) CONDITIONS OF SUPPORT.—

(A) IN GENERAL.—As a condition of receiving a scholarship under this section, a recipient shall agree to provide the qualified institution of higher education with annual verifiable documentation of post-award employment and up-to-date contact information.

(B) TERMS.—A scholarship recipient under this section shall be liable to the United States as provided in paragraph (12) if the individual—

(i) fails to maintain an acceptable level of academic standing at the applicable institution of higher education, as determined by the Director;

(ii) is dismissed from the applicable institution of higher education for disciplinary reasons;

(iii) withdraws from the eligible degree program before completing the program;

(iv) declares that the individual does not intend to fulfill the post- award employment obligation under this section; or

(v) fails to fulfill the post-award employment obligation of the individual under this section.

(11) MONITORING COMPLIANCE.—As a condition of participating in the program, a qualified institution of higher education shall—

(A) enter into an agreement with the Director to monitor the compliance of scholarship recipients with respect to their post-award employment obligations; and

(B) provide to the Director, on an annual basis, the post-award employment documentation required under paragraph (10) for scholarship recipients through the completion of their post-award employment obligations.

(12) AMOUNT OF REPAYMENT.—

(A) LESS THAN 1 YEAR OF SERVICE.—If a circumstance described in paragraph (10) occurs before the completion of 1 year of a post-award employment obligation under this section, the total amount of scholarship awards received by the individual under this section shall—

(i) be repaid; or

(ii) be treated as a loan to be repaid in accordance with paragraph (13).

(B) 1 OR MORE YEARS OF SERVICE.—If a circumstance described in clause (iv) or (v) of paragraph (10)(B) occurs after the completion of 1 or more years of a post-award employment obligation under this section, the total amount of scholarship awards received by the individual under this section, reduced by the ratio of the number of years of service completed divided by the number of years of service required, shall—

(i) be repaid; or

(ii) be treated as a loan to be repaid in accordance with paragraph (13).

(13) REPAYMENTS.—A loan described in paragraph (12) shall—

(A) be treated as a Federal Direct Unsubsidized Stafford Loan under part D of title IV of the Higher Education Act of 1965 (20 U.S.C. 1087a et seq.); and

(B) be subject to repayment, together with interest thereon accruing from the date of the scholarship award, in accordance with terms and conditions specified by the Director (in consultation with the Secretary of Education).

(14) COLLECTION OF REPAYMENT.—

(A) IN GENERAL.—In the event that a scholarship recipient is required to repay the scholarship award under this section, the qualified institution of higher education providing the scholarship shall—

(i) determine the repayment amounts and notify the recipient and the Director of the amounts owed; and

(ii) collect the repayment amounts within a period of time as determined by the Director, or the repayment amounts shall be treated as a loan in accordance with paragraph (13).

(B) RETURNED TO TREASURY.—Except as provided in subparagraph (C), any repayment under this subsection shall be returned to the Treasury of the United States.

(C) RETAIN PERCENTAGE.—A qualified institution of higher education may retain a percentage of any repayment the institution collects under this subsection to defray administrative costs associated with the collection. The Director shall establish a fixed percentage that will apply to all eligible entities, and may update this percentage as needed, in the determination of the Director.

(15) EXCEPTIONS.—The Director may provide for the partial or total waiver or suspension of any service or payment obligation by an individual under this section whenever compliance by the individual with the obligation is impossible or would involve extreme hardship to the individual, or if enforcement of such obligation with respect to the individual would be unconscionable.

(16) PUBLIC INFORMATION.—

(A) EVALUATION.—The Director, in coordination with the Director of the Office of Personnel Management, shall annually evaluate and make public, in a manner that protects the personally identifiable information of scholarship recipients, information on the success of recruiting individuals for scholarships under this section

and on hiring and retaining those individuals in the public sector AI workforce, including information on—

(i) placement rates;

(ii) where students are placed, including job titles and descriptions;

(iii) salary ranges for students not released from obligations under this section;

(iv) how long after graduation students are placed;

(v) how long students stay in the positions they enter upon graduation;

(vi) how many students are released from obligations; and

(vii) what, if any, remedial training is required.

(B) REPORTS.—The Director, in coordination with the Office of Personnel Management, shall submit, not less frequently than once every 3 years, to the Committee on Homeland Security and Governmental Affairs of the Senate, the Committee on Commerce, Science, and Transportation of the Senate, the Committee on Science, Space, and Technology of the House of Representatives, and the Committee on Oversight and Reform of the House of Representatives a report, including the results of the evaluation under subparagraph (A) and any recent statistics regarding the size, composition, and educational requirements of the Federal AI workforce.

(C) RESOURCES.—The Director, in coordination with the Director of the Office of Personnel Management, shall provide consolidated and user-friendly online resources for prospective scholarship recipients, including, to the extent practicable—

(i) searchable, up-to-date, and accurate information about participating institutions of higher education and job opportunities related to the AI field; and

(ii) a modernized description of AI careers.

(17) REFRESH.—Not less than once every 2 years, the Director, in coordination with the Director of the Office of Personnel Management, shall review and update the Federal AI Scholarship-for-Service Program to reflect advances in technology.

SEC. 10314. STEM WORKFORCE DATA.

(a) SKILLED TECHNICAL WORKFORCE PORTFOLIO REVIEW.—

(1) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Director shall conduct a full portfolio analysis of the Foundation's skilled technical workforce investments across all Directorates in the areas of education, research, infrastructure, data collection, and analysis.

(2) REPORT.—Not later than 180 days after the date of the review under paragraph (1) is complete, the Director shall submit to Congress and make widely available to the public a summary report of the portfolio review.

(b) SURVEY DATA.—

(1) ROTATING TOPIC MODULES.—To meet evolving needs for data on the state of the science and engineering workforce, the Director shall assess, through coordination with other Federal statistical agencies and drawing on input from relevant stakeholders, the feasibility and benefits of incorporating questions or topic modules to existing National Center for Science and Engineering Statistics surveys that would vary from cycle to cycle.

(2) NEW DATA.—Not later than 1 year after the date of enactment of this Act, the Director shall submit to Congress and the Board the results of an assessment, carried out in coordination with other Federal agencies and with input from relevant stakeholders, of the feasibility and benefits of incorporating new questions or topic modules to existing National Center for Science and Engineering Statistics surveys on—

(A) the skilled technical workforce;

(B) working conditions and work-life balance;

(C) harassment and discrimination;

(D) immigration and emigration; and

(E) any other topics at the discretion of the Director.

(3) LONGITUDINAL DESIGN.—The Director shall continue and accelerate efforts to enhance the usefulness of National Center for Science and Engineering Statistics survey data for longitudinal research and analysis.

(4) GOVERNMENT ACCOUNTABILITY OFFICE REVIEW.—Not later than 1 year after the date of enactment of this Act, the Comptroller General of the United States shall submit a report to Congress that—

(A) evaluates Foundation processes for ensuring the data and analysis produced by the National Center for Science and Engineering Statistics meets current and future needs; and

(B) includes such recommendations as the Comptroller General determines are appropriate to improve such processes.

SEC. 10315. CYBER WORKFORCE DEVELOPMENT RESEARCH AND DEVELOPMENT.

(a) IN GENERAL.—The Director shall make awards on a merit-reviewed, competitive basis to institutions of higher education or nonprofit organizations (or consortia of such institutions or organizations) to carry out research on the cyber workforce.

(b) RESEARCH.—In carrying out research pursuant to subsection (a), the Director shall support research and development activities to—

(1) understand the current state of the cyber workforce, including factors that influence growth, retention, and development of that workforce;

(2) examine paths to entry and re-entry into the cyber workforce;

(3) understand trends of the cyber workforce, including demographic representation, educational and professional backgrounds present, competencies available, and factors that shape employee recruitment, development, and retention and how to increase the size, diversity, and capability of the cyber workforce;

(4) examine and evaluate training practices, models, programs, and technologies; and

(5) other closely related topics as the Director determines appropriate.

(c) REQUIREMENTS.—In carrying out the activities described in subsection (b), the Director shall—

(1) collaborate with the National Institute of Standards and Technology, including the National Initiative for Cybersecurity Education, the Department of Homeland Security, the Department of Defense, the Office of Personnel Management, and other Federal departments and agencies, as appropriate;

(2) align with or build on the National Initiative on Cybersecurity Education Cybersecurity Workforce Framework wherever practicable and applicable;

(3) leverage the collective body of knowledge from existing cyber workforce development research and education activities; and

(4) engage with other Federal departments and agencies, research communities, and potential users of information produced under this subsection.

SEC. 10316. FEDERAL CYBER SCHOLARSHIP-FOR-SERVICE PROGRAM.

(a) SENSE OF CONGRESS.—It is the sense of Congress that—

(1) since cybersecurity risks are constant in the growing digital world, it is critical that the United States stay ahead of malicious cyber activity with a workforce that can safeguard our innovation, research, and work environments; and

(2) Federal investments in the Federal Cyber Scholarship-for-Service Program at the National Science Foundation play a critical role in preparing and sustaining a strong, talented, and much-needed national cybersecurity workforce and should be strengthened.

(b) IN GENERAL.—Section 302(b)(1) of the Cybersecurity Enhancement Act of 2014 (15 U.S.C. 7442(b)(1)) is amended by striking the semicolon at the end and inserting the following ''and cybersecurity-related aspects of other related fields as appropriate, including artificial intelligence, quantum computing and aerospace;''.

SEC. 10317. CYBERSECURITY WORKFORCE DATA INITIATIVE.

The Director, acting through the National Center for Science and Engineering Statistics established in section 505 of the America COMPETES Reauthorization Act of 2010 (42 U.S.C. 1862p) and in coordination with the Director of the National Institute of Standards and Technology and other appropriate Federal statistical agencies, shall establish a cybersecurity workforce data initiative that—

(1) assesses the feasibility of providing nationally representative estimates and statistical information on the cybersecurity workforce;

(2) utilizes the National Initiative for Cybersecurity Education (NICE) Cybersecurity Workforce Framework (NIST Special Publication 800–181), or other frameworks, as appropriate, to enable a consistent measurement of the cybersecurity workforce;

(3) utilizes and complements existing data on employer requirements and unfilled positions in the cybersecurity workforce;

(4) consults key stakeholders and the broader community of practice in cybersecurity workforce development to determine data requirements needed to strengthen the cybersecurity workforce;

(5) evaluates existing Federal survey data for information pertinent to developing national estimates of the cybersecurity workforce;

(6) evaluates administrative data and other supplementary data sources, as available, to describe and measure the cybersecurity workforce; and

(7) collects statistical data, to the greatest extent practicable, on credential attainment and employment outcomes information for the cybersecurity workforce.

SEC. 10318. MICROELECTRONICS WORKFORCE DEVELOPMENT ACTIVITIES.

(a) CREATING HELPFUL INITIATIVES TO PRODUCE PERSONNEL IN NEEDED GROWTH INDUSTRIES.—

(1) IN GENERAL.—The Director shall make awards to institutions of higher education, nonprofit organizations, or consortia thereof, for research, development, and related activities to advance innovative approaches to developing, improving, and expanding evidence-based education and workforce development activities and learning experiences at all levels of education in fields and disciplines related to microelectronics.

(2) PURPOSES.—Activities carried out under this section shall be for the purpose of supporting the growth, retention, and development of a diverse and sustainable microelectronics workforce to meet the requirements of the programs established in section 9906(c)(2)(C) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 in support of the evolving needs of industry, academia, government, and Federal laboratories.

(3) USES OF FUNDS.—Awards made under this section shall be used to support activities, such as—

(A) development of industry-oriented curricula and teaching modules for topics relevant to microelectronics, including those that provide meaningful hands-on learning experiences;

(B) dissemination of materials developed in subparagraph (A), including through the creation and maintenance of a publicly-accessible database and online portal;

(C) development and implementation of training, research, and professional development programs for teachers, including innovative preservice and in-service programs, in microelectronics and related fields;

(D) support for learning activities and experiences that provide physical, simulated, or remote access to training facilities and industry-standard processes and tools, including equipment and software for the design, development, manufacturing, and testing of microelectronics;

(E) increasing the integration of microelectronics content into STEM curricula at all education levels;

(F) Growing academic research capacity in microelectronics by incentivizing the hiring of faculty in fields critical to microelectronics;

(G) support for innovative industry pathway programs that connect high school, vocational, military, college, and graduate programs; and

(H) providing informal hands-on microelectronics learning opportunities for PreK-12 students in different learning environments, including competitions.

(4) ADVANCED MICROELECTRONICS TRAINEESHIPS.—

(A) IN GENERAL.—The Director shall make awards to institutions of higher education or nonprofit organizations (or consortia of such institutions and organizations) to establish traineeship programs for graduate students who pursue microelectronics research leading to a masters or doctorate degree by providing funding and other assistance, and by providing graduate students with opportunities for research experiences in government or industry related to the students' microelectronics studies.

(B) USE OF FUNDS.—Institutions of higher education or non-profit organizations (or consortia of such institutions and organizations) shall use award funds provided under subparagraph (A) for the purposes of—

(i) paying tuition and fees, and providing stipends, for students receiving traineeships who are citizens, nationals, or aliens lawfully admitted for permanent residence;

(ii) facilitating opportunities for scientific internship programs for students receiving traineeships in microelectronics at private industry, nonprofit research institutions, or Federal laboratories; and

(iii) such other costs associated with the administration of the program.

(5) MICROELECTRONICS SKILLED TECHNICAL WORKFORCE PROGRAMS.—The Director shall make awards under the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862h-j) to support programs for skilled technical workers in STEM disciplines that are aligned with skilled workforce needs of the microelectronics industry and lead to an associate's degree, or equivalent certification, by providing funding and other assistance, including opportunities for internships and other hands-on experiences in industry related to the students' microelectronics studies.

(6) MICROELECTRONICS RESEARCH EXPERIENCES THROUGH EXISTING PROGRAMS.—The Director shall seek to increase opportunities for microelectronics research for students and trainees at all levels by encouraging proposals in microelectronics through existing programs including—

(A) research experiences for undergraduates pursuant to section 514 of the America COMPETES Reauthorization Act of 2010 (42 U.S.C. 1862p–6);

(B) postdoctoral fellowship programs established pursuant to section 522 of the America COMPETES Act of 2010 (42 U.S.C. 1862p–11);

(C) graduate fellowships established pursuant to section 10 of the National Science Foundation Act of 1950 (42 U.S.C. 1869);

(D) informal STEM education programs established pursuant to section 3 of the STEM Education Act of 2015 (42 U.S.C. 1862q);

(E) the Robert Noyce Teacher Scholarship Program established pursuant to section 10 of the National Science Foundation Authorization Act of 2002 (42 U.S.C. 1862n–1);

(F) major research instrumentation programs established pursuant to section 7036 of the America COMPETES Act (42 U.S.C. 1862o–14); and

(G) low-income scholarship program established pursuant to section 414(d) of the American Competitiveness and Workforce Improvement Act of 1998 (42 U.S.C. 1869c).

(7) INDUSTRY PARTNERSHIPS.—In carrying out the activities under this section, the Director shall encourage awardees to partner with industry and other private sector organizations to facilitate the expansion of workforce pipelines and enable access to industry-standard equipment and software for use in undergraduate and graduate microelectronics education programs.

(8) INTERAGENCY COORDINATION.—In carrying out activities under this section, the Director shall collaborate with the Subcommittee on Microelectronics Leadership of the National Science and Technology Council, established in subsection (a) of section 9906 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 and the National Semiconductor Technology Center established in subsection (c) of section 9906 of such Act, and other relevant Federal agencies to maintain the effectiveness of microelectronics workforce development activities across the agencies.

(b) NATIONAL NETWORK FOR MICROELECTRONICS EDUCATION.—

(1) IN GENERAL.—The Director, in coordination with the Secretary of Commerce, shall on a competitive, merit-reviewed basis, make awards to institutions of higher education and nonprofit organizations (or consortia of such institutions and organizations) to establish partnerships to enhance and broaden participation in microelectronics education.

(2) ACTIVITIES.—Awards made under this subsection shall be used for the following:

(A) To conduct training and education activities funded by awards under paragraph (1) and in coordination with the Network Coordination Hub established in paragraph (3), including curricula design, development, dissemination, and assessment, and the sharing of information and best practices across the network of awardees.

(B) To develop regional partnerships among associate-degree-granting colleges, bachelor-degree-granting institutions, workforce development programs, labor organizations, and industry to create a diverse national technical workforce trained in microelectronics and ensure education and training is meeting the evolving needs of industry.

(C) To develop local workforce pipelines that align with capacity investments made by industry and the Federal government, including vocational and high school training programs, community college degrees and certificates, veteran post service opportunities, and mentoring.

(D) To facilitate partnerships with employers, employer consortia or other private sector organizations that offer apprenticeships, internships, or applied learning experiences in the field of microelectronics.

(E) To develop shared infrastructure available to institutions of higher education, two-year colleges, and private organizations to enable experiential learning activities and provide physical or digital access to training facilities and industry-standard tools and processes.

(F) To create and disseminate public outreach to support awareness of microelectronics education and career opportunities, including through outreach to PreK–12 schools and STEM-related organizations.

(G) To collaborate and coordinate with industry and existing public and private organizations conducting microelectronics education and workforce development activities, as practicable.

(3) NETWORK COORDINATION HUB.—The Director shall make an award on a competitive, merit-reviewed basis to an institution of higher education or nonprofit organization (or a consortium thereof) to establish a national network of partnerships (referred to in this section as the ''National Network for Microelectronics Education'') to coordinate activities, best practice sharing, and access to facilities across the partnerships established in accordance with paragraph (1).

(4) INCENTIVIZING PARTICIPATION.—To the extent practicable, the Director shall encourage participation in the National Network for Microelectronics Education through the coordination of activities and distribution of awards described in subsection (a).

(5) PARTNERSHIPS.—The Director shall encourage the submission of proposals that are led by historically Black colleges and universities, Tribal Colleges or Universities, and minority-serving institutions or that include partnerships with or among such institutions to increase the recruitment of students from groups historically underrepresented in STEM to pursue graduate studies in microelectronics.

(6) OUTREACH.—In addition to any other requirements as determined appropriate by the Director, the Director shall require that proposals for awards under this section shall include a description of how the applicant will develop and implement outreach activities to increase the participation of women and other students from groups historically underrepresented in STEM.

(7) COORDINATION ACROSS FOUNDATION PROGRAMS.—In carrying out the activities under this section, the Director shall ensure awardees coordinate with, and avoid unnecessary duplication of, the activities carried out under this Section with the activities of the 21st Century Nanotechnology Research and Development Act (Public Law 108–153), the National Quantum Initiative Act (Public Law 115–368), and Division E of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, and other related programs, as appropriate.

(8) INTERAGENCY COORDINATION.—In carrying out activities under this section, the Director shall collaborate with the Subcommittee on Microelectronics Leadership of the National Science and Technology Council, established in subsection (a) of section 9906 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 and the National Semiconductor Technology Center established in subsection (c) of section 9906 of such Act.

SEC. 10319. INCORPORATION OF ART AND DESIGN INTO CERTAIN STEM EDUCATION.

(a) NATIONAL SCIENCE FOUNDATION AUTHORIZATION ACT.—Section 9(a) of the National Science Foundation Authorization Act of 2002 (42 U.S.C. 1862n(a)) is amended in paragraph (3)—

(1) in subparagraph (M), by striking ''and'' at the end;

(2) by redesignating subparagraph (N) as subparagraph (O); and

(3) after subparagraph (M), by inserting the following new subparagraph:

''(N) developing science, technology, engineering, and mathematics educational curriculum that incorporates art and design to promote creativity and innovation; and''.

(b) STEM EDUCATION ACT [LOG 169 H10304(K)].—Section 3 of the STEM Education Act of 2015 (42 U.S.C. 1862q) is amended—

(1) in subsection (a)—

(A) in paragraph (2), by striking ''and'' at the end;

(B) in paragraph (3), by striking the period and inserting ''; and''; and

(C) by adding at the end the following:

''(4) the integration of art and design in STEM educational programs.''; and

(2) in subsection (b)—

(A) in paragraph (3), by striking ''and'' at the end;

(B) in paragraph (4), by striking the period and inserting ''; and''; and

(C) by adding at the end the following:

''(5) design and testing of programming that integrates art and design in STEM education to promote creativity and innovation.''.

SEC. 10320. MANDATORY COST-SHARING.

(a) WAIVER.—The cost-sharing requirements under section 7036(c) of the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Act (42 U.S.C. 1862o-14(c)) for the Major Research Instrumentation Program and under section 10A(i) of the National Science Foundation Authorization Act of 2002 (42 U.S.C. 1862n-1a(i)) for teaching fellowships administered within the

Robert Noyce Teacher Scholarship Program are waived for a period of 5 years following the date of enactment of this Act.

(b) ASSESSMENT.—Not later than 5 years following the date of enactment of this Act, the Director shall submit to Congress an assessment, that includes feedback from the research community, of the impacts of the waivers provided under subsection (a), including—

(1) programmatic and scientific goals;

(2) institutional commitment and stewardship of Federal resources;

(3) institutional strategic planning and administrative burden;

(4) equity among recipient institutions; and

(5) recommendations for or against extending or making permanent such waivers.

SEC. 10321. PROGRAMS TO ADDRESS THE STEM WORKFORCE.

(a) IN GENERAL.—The Director shall issue undergraduate scholarships, including at community colleges, graduate fellowships and traineeships, postdoctoral awards, and, as appropriate, other awards, to address STEM workforce gaps, including for programs that recruit, retain, and advance students to a bachelor's degree in a STEM discipline concurrent with a secondary school diploma, such as through existing and new partnerships with State educational agencies.

(b) POSTDOCTORAL PROFESSIONAL DEVELOPMENT.—In carrying out this section, the Director shall encourage innovation in postdoctoral professional development, support the development and diversity of the STEM workforce, and study the impacts of such innovation and support. To do so, the Director may use postdoctoral awards established under subsection (a) or leveraged under subsection (d)(1) for fellowships or other temporary rotational postings of not more than 2 years. Such fellowships or temporary rotational postings shall be awarded—

(1) to qualified individuals who have a doctoral degree and received such degree not earlier than 5 years before the date that the fellowship or temporary rotational posting begins; and

(2) to carry out research at Federal, State, local, and Tribal government research facilities.

(c) DIRECT HIRE AUTHORITY.—

(1) IN GENERAL.—The head of any Federal agency may appoint, without regard to the provisions of subchapter I of chapter 33 of title 5, United States Code, other than sections 3303 and 3328 of that title, a qualified candidate described in paragraph (2) directly to a position in the competitive service with the Federal agency for which the candidate meets Office of Personnel Management qualification standards.

(2) FELLOWSHIP OR TEMPORARY ROTATIONAL POSTING.—Paragraph (1) applies with respect to a former recipient of an award under this subsection who—

(A) earned a doctoral degree in a STEM field from an institution of higher education; and

(B) successfully fulfilled the requirements of the fellowship or temporary rotational posting within a Federal agency.

(3) LIMITATION.—The direct hire authority under this subsection shall be exercised with respect to a specific qualified candidate not later than 2 years after the date that the candidate completed the requirements related to the fellowship or temporary rotational posting described under this subsection.

(d) EXISTING PROGRAMS.—In carrying out this section, the Director may leverage existing programs, including programs that issue—

(1) postdoctoral awards;

(2) graduate fellowships and traineeships, inclusive of the NSF Research Traineeships and fellowships awarded under the Graduate Research Fellowship Program;

(3) scholarships, research experiences, and internships, including—

(A) scholarships to attend community colleges; and

(B) research experiences and internships under sections 513, 514, and 515 of the America COMPETES Reauthorization Act of 2010 (42 U.S.C. 1862p–5; 1862p–6; 42 U.S.C. 1862p–7); and

(4) awards to institutions of higher education to enable the institutions to fund innovation in undergraduate and graduate education, increased educational capacity, and the development and establishment of new or specialized programs of study for graduate, undergraduate, or technical college students, and the evaluation of the effectiveness of the programs of study.

Subtitle C—Broadening Participation

SEC. 10321. PRESIDENTIAL AWARDS FOR EXCELLENCE IN MATHEMATICS AND SCIENCE.

(a) IN GENERAL.—Section 117(a) of the National Science Foundation Authorization Act of 1988 (42 U.S.C. 1881b(a)) is amended—

(1) in subparagraph (B)—

(A) by striking ''108'' and inserting ''110'';

(B) by striking clause (iv);

(C) in clause (v), by striking the period at the end and inserting ''; and'';

(D) by redesignating clauses (i), (ii), (iii), and (v) as subclauses (I), (II), (III), and (IV), respectively, and moving the margins of such subclauses (as so redesignated) two ems to the right; and

(E) by striking ''In selecting teachers'' and all that follows through ''two teachers—'' and inserting the following:

''(C) In selecting teachers for an award authorized by this subsection, the President shall select—

''(i) at least two teachers—''; and

(2) in subparagraph (C), as so designated by paragraph (1)(E) of this subsection, by adding at the end the following:

''(ii) at least one teacher—

''(I) from the Commonwealth of the Northern Mariana Islands;

''(II) from American Samoa;

''(III) from the Virgin Islands of the United States; and

''(IV) from Guam.''.

(b) EFFECTIVE DATE.—The amendments made by subsection (a) shall apply with respect to awards made on or after the date of the enactment of this Act.

SEC. 10322. ROBERT NOYCE TEACHER SCHOLARSHIP PROGRAM UPDATE.

(a) SENSE OF CONGRESS.—It is the sense of Congress that over the next five years the Foundation should increase the number of scholarships awarded under the Robert Noyce Teacher Scholarship program established under section 10 of the National Science Foundation Authorization Act of 2002 (42 U.S.C. 1862n–1) by 50 percent.

(b) OUTREACH.—To increase the diversity of participants, the Director shall support symposia, forums, conferences, and other activities to expand and enhance outreach to—

(1) historically Black colleges and universities;

(2) Tribal Colleges or Universities;

(3) minority-serving institutions;

(4) institutions of higher education that are located near or serve rural communities, including EPSCoR institutions;

(5) labor organizations;

(6) emerging research institutions; and

(7) higher education programs that serve or support veterans.

SEC. 10323. NSF EDDIE BERNICE JOHNSON INCLUDES INITIATIVE.

(a) IN GENERAL.—The Director shall make awards, on a competitive basis, to institutions of higher education or non-profit organizations (or consortia of such institutions or organizations) to carry out a comprehensive national initiative to facilitate the development of networks and partnerships to build on and scale up effective practices in broadening participation in STEM studies and careers of groups historically underrepresented in such studies and careers.

(b) CHANGE OF NAME.—The initiative under subsection (a) shall be known as the ''Eddie Bernice Johnson Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science Initiative'' or the ''Eddie Bernice Johnson INCLUDES Initiative''.

SEC. 10324. BROADENING PARTICIPATION ON MAJOR FACILITIES AWARDS.

The Director shall require organizations seeking a cooperative agreement for the management of the operations and maintenance of a Foundation project to demonstrate prior experience and current capabilities in or to have a plan for employing best practices in broadening participation in science and engineering and ensure implementation of such practices is considered in oversight of the award.

SEC. 10325. EXPANDING GEOGRAPHIC AND INSTITUTIONAL DIVERSITY IN RESEARCH.

(a) CONTINUING SUPPORT FOR EPSCOR .—

(1) SENSE OF CONGRESS.—It is the sense of Congress that—

(A) because maintaining the Nation's scientific and economic leadership requires the participation of talented individuals nationwide, EPSCoR investments into State research and education capacities are in the Federal interest and should be sustained;

(B) EPSCoR should maintain its experimental component by supporting innovative methods for improving research capacity and competitiveness; and

(C) the Director should carry out this subsection while maintaining or increasing proposal success rates at emerging research institutions throughout the United States and without precluding access to awards for such institutions.

(2) UPDATE OF EPSCOR.—Section 517(f)(2) of the America COMPETES Reauthorization Act of 2010 (42 U.S.C. 1862p–9(f)(2)) is amended—

(A) in subparagraph (A), by striking ''and'' at the end; and

(B) by adding at the end the following:

''(C) to increase the capacity of rural communities to provide quality STEM education and STEM workforce development programming to students, and teachers; and''.

(3) GEOGRAPHIC DIVERSITY AND INCLUSION.—

(A) IN GENERAL.—To the maximum extent practicable, not less than—

(i) 15.5 percent in fiscal year 2023,

(ii) 16 percent in fiscal year 2024,

(iii) 16.5 percent in fiscal year 2025,

(iv) 17 percent in fiscal year 2026,

(v) 18 percent in fiscal year 2027,

(vi) 19 percent in fiscal year 2028, and

(vii) 20 percent in fiscal year 2029,

of the amounts appropriated to the Foundation for research and related activities, and science, mathematics, and engineering education and human resources programs and activities, excluding those amounts made available for polar research and operations support (and operations and maintenance of research facilities), shall be awarded to EPSCoR institutions.

(B) SCHOLARSHIPS.—To the maximum extent practicable, not less than—

(i) 16 percent in fiscal year 2023,

(ii) 18 percent in fiscal year 2024, and

(iii) 20 percent in each of fiscal years 2025 through 2029,

of the amounts appropriated to the Foundation for scholarships (including at community colleges), graduate fellowships and traineeships, and postdoctoral awards shall be used to support EPSCoR institutions.

(C) CONSIDERATIONS.—The Director shall consider prioritizing funding and activities that enable sustainable growth in the competitiveness of EPSCoR jurisdictions, including—

(i) infrastructure investments to build research capacity in EPSCoR jurisdictions;

(ii) scholarships, fellowships, and traineeships within new and existing programs, to promote the development of sustainable research and academic personnel;

(iii) partnerships between eligible organizations in EPSCoR and non-EPSCoR jurisdictions,

to develop administrative, grant management, and proposal writing capabilities in EPSCoR jurisdictions;

(iv) capacity building activities for emerging research institutions, historically Black colleges and universities, Tribal Colleges or Universities, and minority serving institutions, consistent with this section and section 10524 of this division; and

(v) leveraging the Partnerships for Innovation program, as well as the Foundation coordination role in the Department of Commerce technology and innovation hub program under section 28 of the Stevenson-Wydler Technology Innovation Act of 1980 as added by section 10621, to build sustainable innovation ecosystems in EPSCoR jurisdictions.

(D) MERIT REVIEW.—The Director shall achieve the percentages specified in this paragraph to the maximum extent practicable, consistent with the National Science Foundation merit review process.

(E) CONSORTIA.—In the case of an award to a consortium, the Director may count the entire award toward meeting the funding requirements of subparagraph (A) if the lead entity of the consortium is located in an EPSCoR institution

(F) ANNUAL REPORTING.—Beginning with the fiscal year 2023, the Director shall submit to Congress a report describing—

(i) the Foundation's implementation of this paragraph;

(ii) progress in building research capacity, including both infrastructure and personnel, in EPSCoR jurisdictions, including at historically Black colleges and universities, Tribal Colleges or Universities, minority-serving institutions, and emerging research institutions; and

(iii) if the Foundation does not meet the requirement described in subparagraph (A), an explanation relating thereto and a plan for compliance in the following fiscal year and remediation.

(G) ANALYSIS AND SUSTAINABILITY REPORT.—Not later than December 31, 2026, the Director shall submit to Congress a report containing an analysis of the impacts of the requirements under subparagraphs (A) and (B). The report shall include—

(i) an analysis of how the requirements under this paragraph affected the balance of total funding awarded by the Foundation to states and territories across the United States;

(ii) an analysis of any changes in award success and total funding awarded to Historically black colleges and universities, Tribal Colleges or Universities, minority-serving institutions, and emerging research institutions between the date of enactment and December 31, 2026;

(iii) an analysis of the gains in academic research capacity, quality, and competitiveness and in science and technology human resource development in EPSCoR jurisdictions made between the enactment of this Act and December 31, 2026;

(iv) an assessment of EPSCoR eligibility criteria and determination on whether new eligibility criteria should be developed based on the findings from clauses (i), (ii), and (iii); and

(v) a plan to sustain and grow improvements in research capacity and competitiveness in EPSCoR jurisdictions.

(H) EPSCOR ELIGIBILITY.—

(i) IN GENERAL.—The Director shall ensure eligibility for current EPSCoR jurisdictions for five years from the date of enactment of this Act, after which the Director shall determine whether new eligibility criteria should be developed based on the findings in the report required under subparagraph (G).

(ii) REPORT.—Not later than December 31, 2028, the Director shall report to Congress regarding any new eligibility criteria determined under clause (i), any changes to jurisdictional eligibility based on such criteria, and the necessity and practicality of continuing or modifying the requirement under subparagraph (A) given any such changes to eligibility. The report shall include an analysis of options to support regions in non-EPSCoR jurisdictions, adjacent to EPSCoR jurisdictions, that historically receive disproportionately low levels of funding from the Foundation, including, if appropriate, options to expand the EPSCoR program or to establish new programs.

(b) FOSTERING STEM RESEARCH DIVERSITY AND CAPACITY PROGRAM.—

(1) IN GENERAL.—The Director shall make awards on a competitive, merit-reviewed basis to eligible institutions to implement and study innovative approaches for building research capacity in order to engage and retain students from a range of institutions and diverse backgrounds in STEM.

(2) ELIGIBLE INSTITUTION DEFINED.—In this subsection the term ''eligible institution'' means an institution of higher education that, according to the data published by the National Center for Science and Engineering Statistics, is not, on average, among the top 100 institutions in Federal research and development expenditures during the 3-year period prior to the year of the award.

(3) PURPOSE.—The activities under this subsection shall be focused on achieving simultaneous impacts at the student, faculty, and institutional levels by increasing the research capacity at eligible institutions and the number of undergraduate and graduate students pursuing STEM degrees from eligible institutions.

(4) REQUIREMENTS.—In carrying out this program, the Director shall—

(A) require eligible institutions seeking funding under this subsection to submit an application to the Director at such time, in such manner, containing such information and assurances as the Director may require. The application shall include, at a minimum a description of how the eligible institution plans to sustain the proposed activities beyond the duration of the award;

(B) require applicants to identify disciplines and focus areas in which the eligible institution can excel, and explain how the applicant will use the award to build capacity to bolster the institutional research competitiveness of eligible entities to support awards made by the Foundation and increase regional and national capacity in STEM;

(C) require the awards funded under this subsection to support research and related activities, which may include—

(i) development or expansion of research programs in disciplines and focus areas in subparagraph (B);

(ii) faculty recruitment and professional development in disciplines and focus areas in subparagraph (B), including for early-career researchers;

(iii) stipends for undergraduate and graduate students participating in research in disciplines and focus areas in subparagraph (B);

(iv) acquisition of instrumentation necessary to build research capacity at an eligible institution in disciplines and focus areas in subparagraph (B);

(v) an assessment of capacity-building and research infrastructure needs;

(vi) administrative research development support; and

(vii) other activities necessary to build research capacity; and

(D) require that no eligible institution should receive more than $10,000,000 in any single year of funds made available under this section.

(5) ADDITIONAL CONSIDERATIONS.—In making awards under this subsection, the Director may also consider—

(A) the extent to which the applicant will support students from diverse backgrounds, including first-generation undergraduate students;

(B) the geographic and institutional diversity of the applying institutions; and

(C) how the applicants can leverage public-private partnerships and existing partnerships with Federal Research Agencies.

(6) DUPLICATION.—The Director shall ensure the awards made under this subsection are complementary and not duplicative of existing programs.

(7) REPORT.—The Director shall submit a report to Congress after the third year of the program that includes—

(A) an assessment of the effectiveness of the program for growing the geographic and institutional diversity of institutions of higher education receiving research awards from the Foundation;

(B) an assessment of the quality, quantity, and geographic and institutional diversity of institutions of higher education conducting Foundation- sponsored research since the establishment of the program in this subsection;

(C) an assessment of the quantity and diversity of undergraduate and graduate students graduating from eligible institutions with STEM degrees; and

(D) statistical summary data on the program, including the geographic and institutional allocation of award funding, the number and diversity of supported graduate and undergraduate students, and how it contributes to capacity building at eligible entities.

(8) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Director $150,000,000 for each of the fiscal years 2023 through 2027 to carry out the activities under this subsection.

(c) PARTNERSHIPS WITH EMERGING RESEARCH INSTITUTIONS.—

(1) IN GENERAL.—The Director shall establish a five-year pilot program for awards to research partnerships that involve emerging research institutions and may involve institutions classified as very high research activity by the Carnegie Classification of Institutions of Higher Education at the time of application.

(2) REQUIREMENTS.—In carrying out this program, the Director shall—

(A) require that each proposal submitted by a multi-institution collaboration for an award, including those under subtitle G of this title, that exceeds $1,000,000, as appropriate, specify how the applicants will support substantive, meaningful, sustainable, and mutually beneficial partnerships with one or more emerging research institutions;

(B) require recipients funded under this subsection to direct no less than 35 percent of the total award to one or more emerging research institutions;

(C) require recipients funded under this subsection to report on the partnership activities as part of the annual reporting requirements of the Foundation; and

(D) solicit feedback on the partnership directly from partner emerging research institutions, in such form as the Director deems appropriate.

(3) CAPACITY BUILDING.—Funds awarded to emerging research institutions under this subsection may be used to build research capacity, including through support for faculty salaries and training, field and laboratory research experiences for undergraduate and graduate students, and maintenance and repair of research equipment and instrumentation.

(4) REPORT.—The Director shall submit a report to Congress after the third year of the pilot program that includes—

(A) an assessment, drawing on feedback from the research community and other sources of information, of the effectiveness of the pilot program for improving the quality of partnerships with emerging research institutions; and

(B) if deemed effective, a plan for permanent implementation of the pilot program.

SEC. 10326. DIVERSITY IN TECH RESEARCH.

The Director shall make awards, on a competitive basis, to institutions of higher education or nonprofit organizations (or consortia of such institutions or organizations) to support basic, applied, and use-inspired research that yields a

scientific evidence base for improving the design and emergence, development and deployment, and management and ultimate effectiveness of entities involved in technology research, including research related to diversity and inclusion in the technology sector.

SEC. 10327. CHIEF DIVERSITY OFFICER OF THE NSF.

(a) CHIEF DIVERSITY OFFICER.—

(1) APPOINTMENT.—The Director shall appoint a senior agency official within the Office of the Director as a Chief Diversity Officer.

(2) QUALIFICATIONS.—The Chief Diversity Officer shall have significant experience, within the Federal Government and the science community, with diversity- and inclusion-related matters, including—

(A) civil rights compliance;

(B) harassment policy, reviews, and investigations;

(C) equal employment opportunity; and

(D) disability policy.

(b) DUTIES.—The Chief Diversity Officer is responsible for providing advice on policy, oversight, guidance, and coordination with respect to matters of the Foundation related to diversity and inclusion, including ensuring the geographic diversity of the Foundation programs. Other duties may include—

(1) establishing and maintaining a strategic plan that publicly states a diversity definition, vision, and goals for the Foundation;

(2) defining a set of strategic metrics that are—

(A) directly linked to key organizational priorities and goals;

(B) actionable; and

(C) actively used to implement the strategic plan under paragraph (1);

(3) advising in the establishment of a strategic plan for diverse participation by individuals and institutions of higher education, including community colleges, historically Black colleges and universities, Tribal Colleges or Universities, minority serving institutions, institutions of higher education with an established STEM capacity building program focused on Native Hawaiians or Alaska Natives, and EPSCoR institutions);

(4) advising in the establishment of a strategic plan for outreach to, and recruiting from, untapped locations and underrepresented populations;

(5) advising on a diversity and inclusion strategy for the Foundation's portfolio of PreK–12 STEM education focused programs and activities, including goals for addressing barriers to participation;

(6) advising on the application of the Foundation's broader impacts review criterion; and

(7) performing such additional duties and exercise such powers as the Director may prescribe.

(c) AUTHORIZATION OF APPROPRIATIONS.—To carry out this section, there are authorized to be appropriated $5,000,000 for each of fiscal years 2023 through 2027.

SEC. 10328. RESEARCH AND DISSEMINATION TO INCREASE THE PARTICIPATION OF WOMEN AND UNDERREPRESENTED MINORITIES IN STEM FIELDS.

(a) IN GENERAL.—The Director shall make awards on a competitive, merit-reviewed basis, to institutions of higher education or non-profit organizations (or consortia of such institutions or organizations), to enable such entities to increase the participation of women and underrepresented minorities in STEM studies and careers.

(b) USE OF FUNDS.—An eligible entity that receives an award under this subsection shall use such award funds to carry out one or more of the following activities designed to increase the participation of women or minorities historically underrepresented in STEM, or both:

(1) Research to analyze the record-level data collected under sections 10502 and 10504, consistent with policies to ensure the privacy of individuals identifiable by such data.

(2) Research to study best practices for work-life accommodation.

(3) Research to study the impact of policies and practices that are implemented or are otherwise consistent with the purposes of this section.

(4) Mentoring programs that facilitate engagement of STEM professionals with students.

(5) Research experiences for undergraduate and graduate students in STEM fields.

(6) Outreach to elementary school and secondary school students to provide opportunities to increase their exposure to STEM fields.

(c) DISSEMINATION ACTIVITIES.—The Director shall carry out dissemination activities consistent with the purposes of this section, including—

(1) collaboration with other Federal research agencies and professional associations to exchange best practices, harmonize work-life accommodation policies and practices, and overcoming common barriers to work-life accommodation; and

(2) collaboration with institutions of higher education in order to clarify and catalyze the adoption of a coherent and consistent set of work-life accommodation policies and practices.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $5,000,000 for each of fiscal years 2023, 2024, 2025, 2026, and 2027.

SEC. 10329. ACTIVITIES TO EXPAND STEM OPPORTUNITIES.

(a) NATIONAL SCIENCE FOUNDATION SUPPORT FOR INCREASING DIVERSITY AMONG STEM FACULTY AT INSTITUTIONS OF HIGHER EDUCATION.—Section 305 of the American Innovation and Competitiveness Act (42 U.S.C. 1862s–5) is amended—

(1) by redesignating subsections (e) and (f) as subsections (g) and (h), respectively; and

(2) by inserting after subsection (d) the following:

''(e) SUPPORT FOR INCREASING DIVERSITY AMONG STEM FACULTY AT INSTITUTIONS OF HIGHER EDUCATION.—

''(1) IN GENERAL.—The Director of the Foundation shall make awards to institutions of higher education (or consortia thereof) for the development and assessment of innovative reform efforts designed to increase the recruitment, retention, and advancement of individuals from underrepresented minority groups in academic STEM careers, which may include implementing or expanding successful evidence-based practices.

''(2) MERIT REVIEW; COMPETITION.—Awards shall be made under this subsection on a merit-reviewed, competitive basis.

''(3) USE OF FUNDS.—Activities supported by awards under this subsection may include—

''(A) institutional assessment activities, such as data analyses and policy review, in order to identify and address specific issues in the recruitment, retention, and advancement of faculty members from underrepresented minority groups;

''(B) assessments of distribution of mentoring and advising responsibilities among faculty, particularly for faculty from underrepresented minority groups, that may detract from time spent on research, publishing papers, and other activities required to achieve tenure status or promotion (or equivalents for non-tenure track faculty) and run a productive research program;

''(C) development and assessment of training courses for administrators and search committee members designed to ensure unbiased evaluation of candidates from underrepresented minority groups;

''(D) development and hosting of intra- or inter-institutional workshops to propagate best practices in recruiting, retaining, and advancing faculty members from underrepresented minority groups;

''(E) professional development opportunities for faculty members from underrepresented minority groups;

''(F) activities aimed at making undergraduate STEM students from underrepresented minority groups aware of opportunities for academic careers in STEM fields; and

''(G) activities to identify and engage exceptional graduate students and postdoctoral researchers from underrepresented minority groups at various stages of their studies and to encourage them to enter academic careers.

''(4) SELECTION PROCESS.—

''(A) APPLICATION.—An institution of higher education (or a consortium of such institutions) seeking funding under this subsection shall submit an application to the Director of the Foundation at such time, in such manner, and containing such information and assurances as such Director may require. The application shall include, at a minimum, a description of—

''(i) the reform effort that is being proposed for implementation by the institution of higher education;

''(ii) any available evidence of specific difficulties in the recruitment, retention, and advancement of faculty members from underrepresented minority groups in STEM academic careers within the institution of higher education submitting an application, and how the proposed reform effort would address such issues;

''(iii) support for the proposed reform effort by administrators of the institution, which may include details on previous or ongoing reform efforts;

''(iv) how the proposed reform effort may contribute to change in institutional culture and policy such that a greater value is placed on the recruitment, retention, and advancement of faculty members from underrepresented minority groups;

''(v) how the institution of higher education submitting an application plans to sustain the proposed reform effort beyond the duration of the award, if the effort proved successful; and

''(vi) how the success and effectiveness of the proposed reform effort will be evaluated and assessed in order to contribute to the national knowledge base about models for catalyzing institutional change.

''(B) AWARD DISTRIBUTION.—The Director of the Foundation shall ensure, to the extent practicable, that awards under this section are made to a variety of types of institutions of higher education.

''(5) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this subsection $8,000,000 for each of fiscal years 2023 through 2027.''.

(b) NATIONAL SCIENCE FOUNDATION SUPPORT FOR BROADENING PARTICIPATION IN UNDERGRADUATE STEM EDUCATION.—Section 305 of the American Innovation and Competitiveness Act (42 U.S.C. 1862s–5), as amended by subsection (b), is further amended by inserting after subsection (e) the following:

''(f) SUPPORT FOR BROADENING PARTICIPATION IN UNDERGRADUATE STEM EDUCATION.—

''(1) IN GENERAL.—The Director of the Foundation shall make awards to institutions of higher education (or a consortium of such institutions) to implement or expand research-based reforms in undergraduate STEM education for the purpose of recruiting and retaining students from minority groups who are underrepresented in STEM fields.

''(2) MERIT REVIEW; COMPETITION.—Awards shall be made under this subsection on a merit-reviewed, competitive basis.

''(3) USE OF FUNDS.—Activities supported by awards under this subsection may include—

''(A) implementation or expansion of innovative, research-based approaches to broaden participation of underrepresented minority groups in STEM fields;

''(B) implementation or expansion of successful, research-based bridge, cohort, tutoring, or mentoring programs, including those involving community colleges and technical schools, designed to enhance the recruitment and retention of students from underrepresented minority groups in STEM fields;

''(C) implementation or expansion of outreach programs linking institutions of higher education and PreK–12 school systems in order to

heighten awareness among precollege students from underrepresented minority groups of opportunities in college-level STEM fields and STEM careers;

''(D) implementation or expansion of faculty development programs focused on improving retention of undergraduate STEM students from underrepresented minority groups;

''(E) implementation or expansion of mechanisms designed to recognize and reward faculty members who demonstrate a commitment to increasing the participation of students from underrepresented minority groups in STEM fields;

''(F) expansion of successful reforms aimed at increasing the number of STEM students from underrepresented minority groups beyond a single course or group of courses to achieve reform within an entire academic unit, or expansion of successful reform efforts beyond a single academic unit or field to other STEM academic units or fields within an institution of higher education;

''(G) expansion of opportunities for students from underrepresented minority groups to conduct STEM research in industry, at Federal labs, and at international research institutions or research sites;

''(H) provision of stipends for students from underrepresented minority groups participating in research;

''(I) development of research collaborations between research-intensive universities and primarily undergraduate historically Black colleges and universities, Tribal Colleges or Universities, and minority serving institutions;

''(J) support for graduate students and postdoctoral fellows from underrepresented minority groups to participate in instructional or assessment activities at primarily undergraduate institutions, including primarily undergraduate historically Black colleges and universities, Tribal Colleges or Universities, and minority serving institutions and 2-year institutions of higher education; and

''(K) other activities consistent with paragraph (1), as determined by the Director of the Foundation.

''(4) SELECTION PROCESS.—

''(A) APPLICATION.—An institution of higher education (or a consortium thereof) seeking an award under this subsection shall submit an application to the Director of the Foundation at such time, in such manner, and containing such information and assurances as such Director may require. The application shall include, at a minimum—

''(i) a description of the proposed reform effort;

''(ii) a description of the research findings that will serve as the basis for the proposed reform effort or, in the case of applications that propose an expansion of a previously implemented reform, a description of the previously implemented reform effort, including data about the recruitment, retention, and academic achievement of students from underrepresented minority groups;

''(iii) evidence of an institutional commitment to, and support for, the proposed reform effort, including a long-term commitment to implement successful strategies from the current reform beyond the academic unit or units included in the award proposal;

''(iv) a description of how the proposed reform effort may contribute to, or in the case of applications that propose an expansion of a previously implemented reforms has contributed to, change in institutional culture and policy such that a greater value is placed on the recruitment, retention and academic achievement of students from underrepresented minority groups;

''(v) a description of existing or planned institutional policies and practices regarding faculty hiring, promotion, tenure, and teaching assignment that reward faculty contributions to improving the education of students from underrepresented minority groups in STEM; and

''(vi) how the success and effectiveness of the proposed reform effort will be evaluated and assessed in order to contribute to the national knowledge base about models for catalyzing institutional change,

''(B) AWARD DISTRIBUTION.—The Director of the Foundation shall ensure, to the extent practicable, that awards under this subsection are made to a variety of types of institutions of higher education, including historically Black colleges and universities, Tribal Colleges or Universities, minority serving institutions, and 2-year institutions of higher education.

''(5) EDUCATION RESEARCH.—

''(A) IN GENERAL.—All awards made under this subsection shall include an education research component that will support the design and implementation of a system for data collection and evaluation of proposed reform efforts in order to build the knowledge base on promising models for increasing recruitment and retention of students from underrepresented minority groups in STEM education at the undergraduate level across a diverse set of institutions.

''(B) DISSEMINATION.—The Director of the Foundation shall coordinate with the Committee on STEM Education of the National Science and Technology Council in disseminating the results of the research under this paragraph to ensure that best practices in broadening participation in STEM education at the undergraduate level are made readily available to all institutions of higher education, other Federal agencies that support STEM programs, non-Federal funders of STEM education, and the general public.

''(6) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this subsection $15,000,000 for each of fiscal years 2023 through 2027.''.

SEC. 10330. INTRAMURAL EMERGING RESEARCH INSTITUTIONS PILOT PROGRAM.

(a) ESTABLISHMENT.—The Director may conduct multiple pilot programs, including through existing programs or other programs authorized in this division or division A, within the Foundation to expand the number of institutions of higher education (including such institutions that are community colleges), and other eligible entities that the Director determines appropriate, that are able to successfully compete for Foundation awards.

(b) COMPONENTS.—Pilot programs under this section may include—

(1) a mentorship program;

(2) award application writing technical assistance;

(3) targeted outreach, including to a historically Black college or university, a Tribal college or university, or a minority-serving institution (including a Hispanic-serving institution or an institution of higher education with an established STEM capacity building program focused on Native Hawaiians or Alaska Natives);

(4) programmatic support or solutions for institutions or entities that do not have an experienced award management office;

(5) an increase in the number of award proposal reviewers from institutions of higher education that have not traditionally received funds from the Foundation; or

(6) an increase of the term and funding, for a period of 3 years or less, as appropriate, for awards with a first-time principal investigator, when paired with regular mentoring on the administrative aspects of award management.

(c) LIMITATION.—As appropriate, each pilot program under this section shall work to reduce administrative burdens for recipients and award personnel.

(d) AGENCY-WIDE PROGRAMS.—Not later than 5 years after the date of enactment of this Act, the Director shall—

(1) review the results of the pilot programs under this section; and

(2) develop agencywide best practices from the pilot programs for implementation across the Foundation, in order to fulfill the requirement under section 3(e) of the National Science Foundation Act of 1950 (42 U.S.C. 1862(e)).

Subtitle D—NSF Research Security

SEC. 10331. OFFICE OF RESEARCH SECURITY AND POLICY.

The Director shall maintain a Research Security and Policy office within the Office of the Director with not fewer than four full-time equivalent positions, in addition to the Chief of Research Security established pursuant to section 10332. The functions of the Research Security and Policy office shall be to coordinate all research security policy issues across the Foundation, including by—

(1) consulting and coordinating with the Foundation Office of Inspector General, with other Federal research agencies, and intelligence and law enforcement agencies, and the National Science and Technology Council, as appropriate, in accordance with the authority provided under section 1746 of the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116–92; 42 U.S.C. 6601 note), to identify and address potential security risks that threaten research integrity and other risks to the research enterprise and to develop research security policy and best practices, taking into account the policy guidelines to be issued by the Director of the Office of Science and Technology Policy under section 10631 of this division;

(2) serving as a resource at the Foundation for all issues related to the security and integrity of the conduct of Foundation-supported research;

(3) conducting outreach and education activities for recipients on research policies and potential security risks and on policies and activities to protect intellectual property and information about critical technologies relevant to national security, consistent with the controls relevant to the grant or award;

(4) educating Foundation program managers and other directorate staff on evaluating Foundation awards and recipients for potential security risks;

(5) communicating reporting and disclosure requirements to recipients and applicants for funding;

(6) performing risk assessments, in consultation, as appropriate, with other Federal agencies, of Foundation proposals and awards using analytical tools to assess nondisclosures of required information;

(7) establishing policies and procedures for identifying, communicating, and addressing security risks that threaten the integrity of Foundation-supported research and development, working in consultation, as appropriate, with other Federal agencies, to ensure compliance with National Security Presidential Memorandum–33 (relating to strengthening protections of United States Government-supported research and development against foreign government interference and exploitation) or a successor policy document; and

(8) in accordance with relevant policies of the agency, conducting or facilitating due diligence with regard to applications for research and development awards from the Foundation prior to making such awards.

SEC. 10332. CHIEF OF RESEARCH SECURITY.

The Director shall appoint a senior agency official within the Office of the Director as a Chief of Research Security, whose primary responsibility shall be to manage the office established under section 10331.

SEC. 10333. REPORTING TO CONGRESS.

(a) REPORT ON RESOURCE NEEDS.—Not later than 180 days after the date of the enactment of this Act, the Director shall provide a report to the Committee on Science, Space, and Technology of the House of Representatives, the Committee on Commerce, Science, and Transportation of the Senate, the Committee on Appropriations of the House of Representatives, and the Committee on Appropriations of the Senate

on the resources and the number of full time employees needed to carry out the functions of the office established in section 10331.

(b) ANNUAL REPORT ON OFFICE ACTIVITIES.—

(1) IN GENERAL.—Not later than one year after the date of the enactment of this Act and annually thereafter, the Director shall submit to Congress a report on the activities carried out by the Office of Research Security, detailing—

(A) a description of the activities conducted by the Office, including administrative actions taken;

(B) such recommendations as the Director may have for legislative or administrative action relating to improving research security;

(C) identification and discussion of the gaps in legal authorities that need to be improved to enhance the security of institutions of higher education performing research supported by the Foundation; and

(D) information on Foundation Inspector General cases, as appropriate, relating to undue influence and security threats to research and development activities funded by the Foundation, including theft of property or intellectual property relating to a project funded by the Foundation at an institution of higher education.

(2) FORM.—The report submitted under paragraph (1) shall be submitted in both unclassified and classified formats, as appropriate.

SEC. 10334. ONLINE RESOURCE.

The Director shall develop an online resource hosted on the Foundation's website containing up-to-date information, tailored for institutions and individual researchers, including—

(1) an explanation of Foundation research security policies;

(2) unclassified guidance on potential security risks that threaten research integrity and other risks to the research enterprise;

(3) examples of beneficial international collaborations and how such collaborations differ from foreign government interference efforts that threaten research integrity;

(4) best practices for mitigating security risks that threaten research integrity; and

(5) additional reference materials, including tools that assist organizations seeking Foundation funding and awardees in information disclosure to the Foundation.

SEC. 10335. RESEARCH AWARDS.

The Director shall continue to make awards, on a competitive basis, to institutions of higher education or non-profit organizations (or consortia of such institutions or organizations) to support research on the conduct of research and the research environment, including research on research misconduct or breaches of research integrity and detrimental research practices.

SEC. 10336. AUTHORITIES.

In addition to existing authorities for preventing waste, fraud, abuse, and mismanagement of Federal funds, the Director, acting through the Office of Research Security and Policy and in coordination with the Foundation's Office of Inspector General, shall have the authority to conduct risk assessments, including through the use of open-source analysis and analytical tools, of research and development award applications and disclosures to the Foundation.

SEC. 10337. RESPONSIBLE CONDUCT IN RESEARCH TRAINING.

Section 7009 of the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Act (42 U.S.C. 1862o–1) is amended by—

(1) striking ''and postdoctoral researchers'' and inserting ''postdoctoral researchers, faculty, and other senior personnel''; and

(2) by striking the period and inserting the following: '', including—

''(1) mentor training and mentorship;

''(2) training to raise awareness of potential research security threats; and

''(3) Federal export control, disclosure, and reporting requirements.''.

SEC. 10338. RESEARCH SECURITY AND INTEGRITY INFORMATION SHARING ANALYSIS ORGANIZATION.

(a) ESTABLISHMENT.—The Director shall enter into an agreement with a qualified independent organization to establish a research security and integrity information sharing analysis organization (referred to in this section as the ''RSI-ISAO''), which shall include members described in subsection (d) and carry out the duties described in subsection (b).

(b) DUTIES.—The RSI-ISAO shall—

(1) serve as a clearinghouse for information to help enable the members and other entities in the research community to understand the context of their research and identify improper or illegal efforts by foreign entities to obtain research results, know how, materials, and intellectual property;

(2) develop a set of standard risk assessment frameworks and best practices, relevant to the research community, to assess research security risks in different contexts;

(3) share information concerning security threats and lessons learned from protection and response efforts through forums and other forms of communication;

(4) provide timely reports on research security risks to provide situational awareness tailored to the research and STEM education community;

(5) provide training and support, including through webinars, for relevant faculty and staff employed by institutions of higher education on topics relevant to research security risks and response;

(6) enable standardized information gathering and data compilation, storage, and analysis for compiled incident reports;

(7) support analysis of patterns of risk and identification of bad actors and enhance the ability of members to prevent and respond to research security risks; and

(8) take other appropriate steps to enhance research security.

(c) FUNDING.—The Foundation may provide initial funds toward the RSI-ISAO but shall seek to have the fees authorized in subsection (d)(2) cover the costs of operations at the earliest practicable time.

(d) MEMBERSHIP.—

(1) IN GENERAL.—The RSI-ISAO shall serve and include members representing institutions of higher education, nonprofit research institutions, and small and medium-sized businesses.

(2) FEES.—As soon as practicable, members of the RSI-ISAO shall be charged an annual rate to enable the RSI-ISAO to cover its costs. Rates shall be set on a sliding scale based on research and development expenditures to ensure that membership is accessible to a diverse community of stakeholders and ensure broad participation. The RSI-ISAO shall develop a plan to sustain the RSI-ISAO without Federal funding, as practicable.

(e) BOARD OF DIRECTORS.—The RSI-ISAO may establish a board of directors to provide guidance for policies, legal issues, and plans and strategies of the entity's operations. The board shall include a diverse group of stakeholders representing the research community, including academia, industry, and experienced research security administrators.

(f) STAKEHOLDER ENGAGEMENT.—In establishing the RSI-ISAO under this section, the Director shall take necessary steps to ensure the services provided are aligned with the needs of the research community, including by—

(1) convening a series of workshops or other multi-stakeholder events; or

(2) publishing a description of the services the RSI-ISAO intends to provide and the requirements for membership in the Federal Register and provide an opportunity for submission of public comments for a period of not less than 60 days.

SEC. 10339. PLAN WITH RESPECT TO CONTROLLED INFORMATION AND BACKGROUND SCREENING.

(a) IN GENERAL.—Not later than 180 days after the enactment of this Act, the Director, in consultation with the Director of National Intelligence and, as appropriate, other Federal agencies, shall develop a plan to—

(1) identify research areas supported by the Foundation, including in the key technology focus areas, that may involve access to controlled unclassified or classified information, including in the key technology focus areas; and

(2) exercise due diligence in granting access, as appropriate, to the CUI or classified information identified under paragraph (1) to individuals working on such research who are employees of the Foundation or covered individuals on research and development awards funded by the Foundation.

(b) DEFINITIONS.—In this section:

(1) CLASSIFIED INFORMATION.—The term ''classified information'' means any information that has been determined pursuant to Executive Order 13526, any predecessor or successor order, or sections 1-274, 275-321, and 1001-3115 of the Atomic Energy Act of 1954 (42 U.S.C. 2011-2021, 2022-2286i, 2296a-2297h-13) to require protection against unauthorized disclosure and that is so designated.

(2) CONTROLLED UNCLASSIFIED INFORMATION.—The term ''controlled unclassified information'' or ''CUI'' means information described as ''Controlled Unclassified Information'' under Executive Order 13556 or any successor order, to require protection against unauthorized disclosure and that is so designated.

SEC. 10339A. FOUNDATION FUNDING TO INSTITUTIONS HOSTING OR SUPPORTING CONFUCIUS INSTITUTES.

(a) CONFUCIUS INSTITUTE DEFINED.—In this section the term ''Confucius Institute'' means a cultural institute established as a partnership between a United States institution of higher education and a Chinese institution of higher education to promote and teach Chinese language and culture that is funded, directly or indirectly, by the Government of the People's Republic of China.

(b) RESTRICTIONS OF CONFUCIUS INSTITUTES.—Except as provided in subsection (d), none of the funds made available to the Foundation under this division or division A, or an amendment made by this division or division A, may be obligated or expended to an institution of higher education that maintains a contract or agreement between the institution and a Confucius Institute, unless the Director, after consultation with the National Academies, determines such a waiver is appropriate in accordance with subsection (c).

(c) WAIVER.—The Director, after consultation with the National Academies, may issue a waiver for an institution of higher education that maintains a contract or agreement between the institution and a Confucius Institute if such contract or agreement includes clear provisions that—

(1) protect academic freedom at the institution;

(2) prohibit the application of any foreign law on any campus of the institution;

(3) grant full managerial authority of the Confucius Institute to the institution, including full control over what is being taught, the activities carried out, the research awards that are made, and who is employed at the Confucius Institute; and

(4) prohibit co-location with the institution's Chinese language, history, and cultural programs and require separate promotional materials.

(d) SPECIAL RULE.—

(1) IN GENERAL.—Notwithstanding any other provision of this section, this section shall not apply to an institution of higher education if that institution has fulfilled the requirements for a waiver from the Department of Defense as

described under section 1062 of the National Defense Authorization Act for Fiscal Year 2021 (Public Law 116–283).

(2) EXCEPTION.—Notwithstanding any other provision of this section, the prohibition under subsection (b) shall not apply to amounts provided to students as educational assistance.

(e) EFFECTIVE DATE.—The limitation under subsection (b) shall apply with respect to the first fiscal year that begins after the date that is two years after the date of the enactment of this Act and to any subsequent fiscal year subject to subsection (f).

(f) SUNSET.—This section shall cease to be effective on the date that is five years after the date of the enactment of this Act.

SEC. 10339B. FOREIGN FINANCIAL SUPPORT.

(a) IN GENERAL.—The Director shall request, on an annual basis, from a recipient institution of higher education a disclosure, in the form of a summary document, from the institution, a foundation of the institution, and related entities such as any educational, cultural, or language entity, of the current financial support, the value of which is $50,000 or more, including gifts and contracts, received directly or indirectly from a foreign source (as such term is defined in section 117 of the Higher Education Act of 1965 (20 U.S.C. 1011f(h)(2))) associated with a foreign country of concern.

(b) RECORDS.—Each disclosure to the Director under this section shall be made on the condition that the institution will maintain a true copy of the relevant records subject to the disclosure requirement until the latest of—

(1) the date that is four years after the date of the agreement;

(2) the date on which the agreement terminates; or

(3) the last day of any period that applicable State public record law requires a true copy of such agreement to be maintained.

(c) DOCUMENTATION.—Upon review of the disclosures under this section, the Director may request that a recipient institution provide true copies of any contracts, agreements, or documentation of financial transactions associated with disclosures made under this section.

(d) OFFICE OF THE INSPECTOR GENERAL.—The Director, acting through the Office of Research Security and Policy in coordination with the Foundation's Office of Inspector General and in consultation with the recipient institution, may reduce the award funding amount or suspend or terminate the award if the Director determines—

(1) such institution fails to comply with the records retention requirement in subsection (b) or fails to provide information requested under this section; or

(2) the Chief of Research Security determines the disclosures under this section indicate a threat to research security.

SEC. 10339C. AUTHORIZATION OF APPROPRIATIONS.

From any amounts appropriated for the Foundation for each of fiscal years 2023 through 2027, the Director shall allocate $6,000,000 to carry out the activities under this subtitle.

Subtitle E—Fundamental Research

SEC. 10341. BROADER IMPACTS.

(a) ASSESSMENT.—Not later than 120 days after the date of enactment of this Act, the Director shall enter into an agreement with a qualified independent organization to assess how the Broader Impacts review criterion is applied across the Foundation and make recommendations for improving the effectiveness for meeting the goals established in section 526 of the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Reauthorization Act of 2010 (42 U.S.C. 1862p–14).

(b) ACTIVITIES.—The Director shall make awards on a competitive basis, to institutions of higher education or non-profit organizations (or consortia of such institutions or organizations) to support activities to increase the efficiency, effectiveness, and availability of resources for implementing the Broader Impacts review criterion, including—

(1) training and workshops for program officers, merit review panelists, award office administrators, faculty, and students to improve understanding of the goals and the full range of potential broader impacts available to researchers to satisfy this criterion;

(2) repositories and clearinghouses for sharing best practices and facilitating collaboration; and

(3) tools for evaluating and documenting societal impacts of research.

SEC. 10342. SENSE OF CONGRESS.

It is the sense of Congress that the Director should continue to identify opportunities to reduce the administrative burden on researchers.

SEC. 10343. RESEARCH ETHICS.

(a) SENSE OF CONGRESS.—It is the sense of Congress that—

(1) a number of emerging areas of research have potential ethical, social, safety, and security implications that might be apparent as early as the basic research stage;

(2) the incorporation of ethical, social, safety, and security considerations into the research design and review process for Federal awards, may help mitigate potential harms before they happen;

(3) the Foundation's agreement with the National Academies to conduct a study and make recommendations with respect to governance of research in emerging technologies is a positive step toward accomplishing this goal; and

(4) the Foundation should continue to work with stakeholders to promote best practices for governance of research in emerging technologies at every stage of research.

(b) INCORPORATION OF ETHICS CONSIDERATIONS.—Drawing on stakeholder input, not later than 24 months after the date of enactment of this Act, the Director shall revise proposal instructions to require that ethical and societal considerations are to be included as part of a proposal for funding prior to making the award, where such considerations are applicable. Such considerations shall be evaluated by the Director in the review of proposals, taking into account any relevant input from the peer-reviewers for the proposal, and shall factor into award decisions, as deemed necessary by the Director. When incorporating such considerations, proposers may include, as appropriate—

(1)(A) any readily foreseeable or quantifiable risks to society, including how the research could enable products, technologies, or other outcomes that could intentionally or unintentionally cause significant societal harm; or

(B) an assertion that no readily foreseeable potential ethical, social, safety, or security implications are apparent;

(2) how technical or social solutions can mitigate such risks and, as appropriate, a plan to implement such mitigation measures; and

(3) how partnerships and collaborations in the research can help mitigate potential harm and amplify potential societal benefits.

(c) GUIDANCE.—The Director shall solicit stakeholder input to develop clear guidance on what constitutes a readily foreseeable or quantifiable risk as described in subsection (b)(1), and to the extent practicable harmonize this policy with existing ethical policies or related requirements for human subjects.

(d) RESEARCH.—The Director shall make awards, on a competitive basis, to institutions of higher education or non-profit organizations (or consortia of such institutions or organizations) to support—

(1) research to assess the potential ethical and societal implications of Foundation- supported research and products or technologies enabled by such research, including the benefits and risks identified pursuant to subsection (b)(1); and

(2) the development and verification of approaches to proactively mitigate foreseeable risks to society, including the technical and social solutions identified pursuant to subsection (b)(1).

(e) ANNUAL REPORT.—The Director shall encourage recipients to update their consideration of potential risks and benefits as appropriate as part of the annual reports required by all awardees under the award terms and conditions.

SEC. 10344. RESEARCH REPRODUCIBILITY AND REPLICABILITY.

(a) IN GENERAL.—Consistent with existing Federal law for privacy, intellectual property, and security, the Director shall facilitate public access to research products, including data, software, and code, developed as part of Foundation-supported projects.

(b) DATA MANAGEMENT PLANS.—

(1) IN GENERAL.—The Director shall require that every proposal for funding for research include a machine-readable data management plan that includes a description of how the awardee will archive and preserve public access to data, software, and code developed as part of the proposed project.

(2) REQUIREMENTS.—In carrying out the requirement in paragraph (1), the Director shall—

(A) provide necessary resources, including trainings and workshops, to educate researchers and students on how to develop and review high quality data management plans;

(B) ensure program officers and merit review panels are equipped with the resources and training necessary to review the quality of data management plans; and

(C) ensure program officers and merit review panels treat data management plans as essential elements of award proposals, where appropriate.

(c) OPEN REPOSITORIES.—The Director shall—

(1) consult with the heads of other Federal research agencies, as appropriate, and solicit input from the scientific community, to develop and widely disseminate a set of criteria for trusted open repositories to be used by Foundation-funded researchers, accounting for discipline-specific needs and necessary protections for sensitive information;

(2) work with stakeholders to identify significant gaps in available repositories meeting the criteria developed under paragraph (1) and options for supporting the development of additional or enhanced repositories;

(3) make awards on a competitive basis to institutions of higher education or non-profit organizations (or consortia of such institutions or organizations) for the development, upgrades, and maintenance of open data repositories that meet the criteria developed under paragraph (1);

(4) work with stakeholders and build on existing models, where appropriate, to establish a single, public, web-based point of access to help users locate repositories storing data, software, and code resulting from or used in Foundation-supported projects;

(5) work with stakeholders to establish the necessary policies and procedures and allocate the necessary resources to ensure, as practicable, data underlying published findings resulting from Foundation-supported projects are deposited in repositories meeting the criteria developed under paragraph (1) at the time of publication;

(6) incentivize the deposition of data, software, and code into repositories that meet the criteria developed under paragraph (1); and

(7) coordinate with the scientific publishing community and the heads of other relevant Federal departments and agencies to support the development of voluntary consensus standards around data archiving and sharing.

(d) RESEARCH, DEVELOPMENT, AND EDUCATION.—The Director shall make awards, on a competitive basis to institutions of higher education or non-profit organizations (or consortia of such institutions or organizations) to—

(1) support research and development of open source, sustainable, usable tools and infrastructure that support reproducibility for a broad range of studies across different disciplines;

(2) support research on computational reproducibility, including the limits of reproducibility and the consistency of computational results in the development of new computation hardware, tools, and methods; and

(3) support the education and training of students, faculty, and researchers on computational methods, tools, and techniques to improve the quality and sharing of data, code, and supporting metadata to produce reproducible research.

SEC. 10345. CLIMATE CHANGE RESEARCH.

The Director shall make awards, on a competitive basis, to institutions of higher education or non-profit organizations (or consortia of such institutions or organizations) to support research to improve our understanding of the climate system and related human and environmental systems.

SEC. 10346. SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES.

The Director shall—

(1) actively communicate opportunities and solicit proposals for social, behavioral, and economic science researchers to participate in crosscutting and interdisciplinary programs, including the Convergence Accelerator and agency priority activities, and the Mid-Scale Research Infrastructure program; and

(2) ensure social, behavioral, and economic science researchers are represented on relevant merit review panels for such activities.

SEC. 10347. MEASURING IMPACTS OF FEDERALLY FUNDED RESEARCH AND DEVELOPMENT.

The Director shall make awards on a competitive, merit-reviewed basis to institutions of higher education or non-profit organizations (or consortia of such institutions or organizations) to support research and development of data, models, indicators, and associated analytical tools to improve our understanding of the impacts of Federally funded research on society, the economy, and the workforce, including domestic job creation.

SEC. 10348. FOOD-ENERGY-WATER RESEARCH.

The Director shall make awards on a competitive basis to institutions of higher education or non-profit organizations (or consortia of such institutions or organizations) to—

(1) support research to significantly advance our understanding of the food-energy-water system through quantitative and computational modeling, including support for relevant cyberinfrastructure;

(2) develop real-time, cyber-enabled interfaces that improve understanding of the behavior of food-energy-water systems and increase decision support capability;

(3) support research that will lead to innovative solutions to critical food-energy-water system problems; and

(4) grow the scientific workforce capable of studying and managing the food-energy-water system, through education and other professional development.

SEC. 10349. BIOLOGICAL FIELD STATIONS AND MARINE LABORATORIES.

The Director shall continue to support enhancing, repairing and maintaining research instrumentation, laboratories, telecommunications and housing at biological field stations and marine laboratories.

SEC. 10350. SUSTAINABLE CHEMISTRY RESEARCH AND EDUCATION.

In accordance with section 263 of the National Defense Authorization Act for Fiscal Year 2021, the Director shall carry out activities in support of sustainable chemistry, including—

(1) establishing a program to make awards, on a competitive basis, to institutions of higher education or non-profit organizations (or consortia of such institutions or organizations) to support—

(A) individual investigators and teams of investigators, including to the extent practicable, early career investigators for research and development;

(B) collaborative research and development partnerships among universities, industry, and non-profit organizations;

(C) integrating sustainable chemistry principles into elementary, secondary, undergraduate, and graduate chemistry and chemical engineering curriculum and research training, as appropriate to that level of education and training; and

(2) incorporating sustainable chemistry into existing Foundation research and development programs.

SEC. 10351. RISK AND RESILIENCE RESEARCH.

The Director shall make awards on a competitive basis to institutions of higher education or non-profit organizations (or consortia of such institutions or organizations) to advance knowledge of risk assessment and predictability and to support the creation of tools and technologies, including advancing data analytics and utilization of artificial intelligence, for increased resilience through—

(1) improvements in our ability to understand, model, and predict extreme events and natural hazards;

(2) the creation of novel engineered systems solutions for resilient complex infrastructures, particularly those that address critical interdependence among infrastructures and leverage the growing infusion of cyber-physical-social components into the infrastructures;

(3) development of equipment and instrumentation for innovation in resilient engineered infrastructures;

(4) multidisciplinary research on the behaviors individuals and communities engage in to detect, perceive, understand, predict, assess, mitigate, and prevent risks and to improve and increase resilience; and

(5) advancements in multidisciplinary wildfire science, including those related to air quality impacts, human behavior, and early detection and warning.

SEC. 10352. UNMANNED AIRCRAFT SYSTEMS TECHNOLOGIES.

In coordination with the Administrator of the Federal Aviation Administration and the Administrator of the National Aeronautics and Space Administration, the Director shall carry out a program of research and related activities related to unmanned aircraft system technologies, which may include a prize competition pursuant to section 24 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3719) and support for undergraduate and graduate curriculum development.

SEC. 10353. ACCELERATING UNMANNED MARITIME SYSTEMS TECHNOLOGIES.

(a) IN GENERAL.—In order to support advances in marine science, maritime domain awareness, and national security the Director, in consultation with the Under Secretary of Commerce for Oceans and Atmosphere and the Commandant of the Coast Guard, shall issue awards, on a competitive basis, to institutions of higher education or nonprofit organizations (or consortia of such institutions or organizations) to support research that will accelerate innovation to advance unmanned maritime systems for the purpose of providing greater maritime domain awareness to the Nation.

(b) COORDINATION.—In implementing this section, the Director shall coordinate with the Coast Guard, the Department of Defense, the National Oceanic and Atmospheric Administration, and other Federal agencies, including those established under the Commercial Engagement Through Ocean Technology Act of 2018 (Public Law 115–394).

SEC. 10354. LEVERAGING INTERNATIONAL EXPERTISE IN RESEARCH.

The Director shall explore and advance opportunities for leveraging international capabilities and resources that align with the Foundation and United States research community priorities and have the potential to benefit United States prosperity, security, health, and well-being, including through binational research and development organizations and foundations and by sending teams of Foundation scientific staff for site visits of scientific facilities and agencies in other countries. The Director shall establish and implement policies, including through any research security training requirements, to mitigate the potential risks of such interactions, including risks to the protection of intellectual property and the risk of undue foreign influence on research.

SEC. 10355. BIOLOGICAL RESEARCH COLLECTIONS.

(a) IN GENERAL.—The Director shall continue to support databases, tools, methods, and other activities that secure and improve existing physical and digital biological research collections, improve the accessibility of collections and collection-related data for research and educational purposes, develop capacity for curation and collection management, and to transfer ownership of collections that are significant to the biological research community, including to museums and universities.

(b) SPECIMEN MANAGEMENT PLAN.—In consultation with other relevant Federal research agencies, and as the Director determines is appropriate, the Director shall require that proposals submitted to the Foundation for funding for research that involves collecting or generating specimens include, as part of the data management plan under section 10344, a description of how the specimens and associated data will be accessioned into and maintained in an established biological collection.

(c) ACTION CENTER FOR BIOLOGICAL COLLECTIONS.—In coordination with other relevant Federal research agencies, as appropriate, the Director shall make awards on a competitive basis to institutions of higher education or nonprofit organizations (or consortia of such institutions or organizations) to facilitate coordination and data sharing among communities of practice for research, education, workforce training, evaluation, and business model development, including by establishing an Action Center for Biological Collections.

SEC. 10356. CLEAN WATER RESEARCH AND TECHNOLOGY ACCELERATION.

The Director shall make awards on a competitive, merit-reviewed basis to institutions of higher education or non-profit organizations (or consortia of such institutions or organizations) to—

(1) support transdisciplinary research to significantly advance our understanding of water availability, quality, and dynamics and the impact of human activity and a changing climate on urban and rural water and wastewater systems, including in low-income, underserved, and disadvantaged communities;

(2) develop, pilot, and deploy innovative technologies, systems, and other approaches to identifying and addressing challenges that affect water availability, quality, and security, including through direct engagement with affected communities and partnerships with the private sector, State, territorial, Tribal, and local governments, non-profit organizations and water management professionals; and

(3) grow the scientific workforce capable of studying and managing water and wastewater systems and of conducting wastewater surveillance, through education, training, and other professional development.

SEC. 10357. TECHNOLOGY AND BEHAVIORAL SCIENCE RESEARCH.

(a) IN GENERAL.—The Director shall make awards on a merit-reviewed, competitive basis for research and development to—

(1) increase understanding of social media and consumer technology access and use patterns and related mental health, behavioral, and substance use disorder issues, particularly for children and adolescents; and

(2) explore the role of social media and consumer technology in rising rates of mental

health and substance use disorder issues, including within communities experiencing long-term economic distress.

(b) COORDINATION TO AVOID DUPLICATION.—In making awards under this subsection, the Director shall, for purposes of avoiding duplication of activities and research, consult, collaborate, and coordinate with the heads of other relevant Federal departments and agencies, including the Department of Health and Human Services.

SEC. 10358. MANUFACTURING RESEARCH AMENDMENT.

Section 506(a) of the America COMPETES Reauthorization Act of 2010 (42 U.S.C. 1862p–1(a)) is amended—

(1) in paragraph (5), by striking ''and'' at the end;

(2) in paragraph (6)—

(A) by striking ''and'' before ''virtual manufacturing''; and

(B) by striking the period at the end and inserting ''; and artificial intelligence and machine learning; and''; and

(3) by adding at the end the following:

''(7) additive manufacturing, including new material designs, complex materials, rapid printing techniques, and real-time process controls.''.

SEC. 10359. CRITICAL MINERALS MINING RESEARCH AND DEVELOPMENT.

(a) CRITICAL MINERALS MINING RESEARCH AND DEVELOPMENT AT THE FOUNDATION.—

(1) IN GENERAL.—In order to support supply chain resiliency, the Director shall make awards, on a competitive basis, to institutions of higher education or nonprofit organizations (or consortia of such institutions or organizations) to support basic research that will accelerate innovation to advance critical minerals mining strategies and technologies for the purpose of making better use of domestic resources and eliminating national reliance on minerals and mineral materials that are subject to supply disruptions.

(2) USE OF FUNDS.—Activities funded by an award under this section may include—

(A) advancing mining research and development activities to develop new mapping and mining technologies and techniques, including advanced critical mineral extraction and production, separation, alloying, or processing techniques and technologies that can decrease energy intensity to improve existing or to develop new supply chains of critical minerals, and to yield more efficient, economical, and environmentally benign mining practices;

(B) advancing critical mineral processing research activities to improve separation, alloying, manufacturing, or recycling techniques and technologies that can decrease the energy intensity, waste, potential environmental impact, and costs of those activities;

(C) conducting long-term earth observation of reclaimed mine sites, including the study of the evolution of microbial diversity at such sites;

(D) examining the application of artificial intelligence for geological exploration of critical minerals, including what size and diversity of data sets would be required;

(E) examining the application of machine learning for detection and sorting of critical minerals, including what size and diversity of data sets would be required;

(F) conducting detailed isotope studies of critical minerals and the development of more refined geologic models;

(G) improved understanding of the geological and geochemical processes through which critical minerals form and are concentrated into economically viable deposits; or

(H) providing training and research opportunities to undergraduate and graduate students to prepare the next generation of mining engineers and researchers.

(3) EXISTING PROGRAMS.—The Director shall ensure awards made under this subsection are complementary and not duplicative of existing programs across the Foundation and Federal Government.

(b) CRITICAL MATERIALS INTERAGENCY SUBCOMMITTEE.—

(1) IN GENERAL.—The Critical Minerals Subcommittee of the National Science and Technology Council (referred to in this section as the ''Subcommittee''), shall coordinate Federal science and technology efforts to ensure secure, reliable, and environmentally sustainable supplies of critical materials to the United States.

(2) PURPOSES.—The purposes of the Subcommittee shall be—

(A) to advise and assist the National Science and Technology Council, including the Committee on Homeland and National Security, on United States policies, procedures, and plans as it relates to critical materials, including—

(i) Federal research, development, and commercial application efforts to minimize the environmental impacts of methods for extractions, concentration, separation and purification of conventional, secondary, and unconventional sources of critical materials;

(ii) efficient use, substitution, and reuse of critical materials;

(iii) the critical materials workforce of the United States; and

(iv) United States private industry investments in innovation and technology transfer from federally funded science and technology;

(B) to identify emerging opportunities, stimulate international cooperation, and foster the development of secure and reliable supply chains of critical materials and establish scenario modeling systems for supply problems of critical materials and energy critical materials;

(C) to ensure the transparency of information and data related to critical materials; and

(D) to provide recommendations on coordination and collaboration among the research, development, and deployment programs and activities of Federal agencies to promote a secure and reliable supply of critical materials necessary to maintain national security, economic well-being, public health, and industrial production.

(3) RESPONSIBILITIES.—In carrying out this subsection, the Subcommittee may, taking into account the findings and recommendations of relevant advisory committees—

(A) provide recommendations on how Federal agencies may improve the topographic, geologic, and geophysical mapping of the United States and improve the discoverability, accessibility, and usability of the resulting and existing data, to the extent permitted by law and subject to appropriate limitation for purposes of privacy and security;

(B) assess the progress towards developing critical materials recycling and reprocessing technologies, and technological alternatives to critical materials;

(C) establish a mechanism for the coordination and evaluation of Federal programs with critical material needs, including Federal programs involving research and development, in a manner that complements related efforts carried out by the private sector and other domestic and international agencies and organizations;

(D) examine options for accessing and developing critical materials through investment and trade with our allies and partners and provide recommendations;

(E) evaluate and provide recommendations to incentivize the development and use of advances in science and technology in the private industry;

(F) assess the need for and make recommendations to address the challenges the United States critical materials supply chain workforce faces, including aging and retiring personnel and faculty, and foreign competition for United States talent;

(G) develop, and update as necessary, a strategic plan to guide Federal programs and activities to enhance scientific and technical capabilities across critical material supply chains, including a roadmap that identifies key research and development needs and coordinates ongoing activities for source diversification, more efficient use, recycling, and substitution for critical materials; as well as cross-cutting mining science, data science techniques, materials science, manufacturing science and engineering, computational modeling, and environmental health and safety research and development;

(H) assess the need for, and make recommendations concerning, the availability and adequacy of the supply of technically trained personnel necessary for critical materials research, development, extraction, and industrial production, with a particular focus on the problem of attracting and maintaining high-quality professionals for maintaining an adequate supply of energy critical materials; and

(I) report to the appropriate Congressional committees on activities and findings under this section.

(c) DEFINITIONS OF CRITICAL MINERAL AND CRITICAL MINERAL OR METAL.—In this section, the terms ''critical mineral'' and ''critical mineral or metal'' include any host mineral of a critical mineral (within the meaning of those terms in section 7002 of title VII of division Z of the Consolidated Appropriations Act, 2021 (Public Law 116–260)).

SEC. 10360. STUDY OF AI RESEARCH CAPACITY.

(a) IN GENERAL.—The Director shall conduct a study or support the development of a study by a qualified independent organization as determined by the Director, on artificial intelligence research capacity at United States institutions of higher education.

(b) STUDY CONTENTS.—The Director shall ensure that, at a minimum, the study under subsection (a) addresses the following topics:

(1) Which universities are putting out significant peer-reviewed artificial intelligence research, including based on quantity and number of citations.

(2) For each of the universities described in paragraph (1), what specific factors enable their AI research, including computing power, data set availability, specialized curriculum, faculty and graduate students, sources of Federal and non-Federal research funding, and industry and other partnerships.

(3) Promising practices at universities described in paragraph (1) for advancing diversity, equity, and inclusion in AI research programs.

(4) Geographic diversity across the country of universities with the factors identified in paragraph (2).

(5) How universities not included in paragraph (1) could implement the factors in paragraph (2) to produce AI research, as well as case studies that universities can look to as examples and potential pilot programs that the Federal Government could develop or support to help universities produce AI research.

(c) WORKSHOPS.—The Director may support workshops to help inform the study required under this subsection.

(d) PUBLICATION.—The Director shall ensure that the study carried out under this subsection is made publicly available not later than 12 months after the date of enactment of this Act.

(e) AVOID DUPLICATION.—The Director shall ensure that the activities carried out under this section are not duplicative of activities supported by other parts of the Foundation or other relevant Federal agencies, including but not limited to the activities of the National AI Research Resource Task Force.

SEC. 10361. ADVANCING IOT FOR PRECISION AGRICULTURE CAPABILITIES ACT.

(a) SHORT TITLE.—This section may be cited as the ''Advancing IoT for Precision Agriculture Act of 2021''.

(b) PURPOSE.—It is the purpose of this section to promote scientific research and development opportunities for connected technologies that advance precision agriculture capabilities.

(c) FOUNDATION DIRECTIVE ON AGRICULTURAL SENSOR RESEARCH.—In making awards under

the sensor systems and networked systems programs of the Foundation, the Director shall include in consideration of portfolio balance research and development on sensor connectivity in environments of intermittent connectivity and intermittent computation—

(1) to improve the reliable use of advance sensing systems in rural and agricultural areas; and

(2) that considers—

(A) direct gateway access for locally stored data;

(B) attenuation of signal transmission;

(C) loss of signal transmission; and

(D) at-scale performance for wireless power.

(d) UPDATING CONSIDERATIONS FOR PRECISION AGRICULTURE TECHNOLOGY WITHIN THE NSF ADVANCED TECHNICAL EDUCATION PROGRAM.—Section 3 of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i), as amended by section 10312, is further amended—

(1) in subsection (d)(2), by adding at the end the following:

''(G) applications that incorporate distance learning tools and approaches.''; and

(2) in subsection (e)(3)—

(A) in subparagraph (C), by striking ''and'' after the semicolon;

(B) in subparagraph (D), by striking the period at the end and inserting ''; and''; and

(C) by adding at the end the following:

''(E) applications that incorporate distance learning tools and approaches.''.

(e) GAO REVIEW.—Not later than 18 months after the date of enactment of this section, the Comptroller General of the United States shall provide—

(1) a technology assessment of precision agriculture technologies, such as the existing use of—

(A) sensors, scanners, radio-frequency identification, and related technologies that can monitor soil properties, irrigation conditions, and plant physiology;

(B) sensors, scanners, radio-frequency identification, and related technologies that can monitor livestock activity and health;

(C) network connectivity and wireless communications that can securely support digital agriculture technologies in rural and remote areas;

(D) aerial imagery generated by satellites or unmanned aerial vehicles;

(E) ground-based robotics;

(F) control systems design and connectivity, such as smart irrigation control systems;

(G) Global Positioning System-based applications; and

(H) data management software and advanced analytics that can assist decision making and improve agricultural outcomes; and

(2) a review of Federal programs that provide support for precision agriculture research, development, adoption, education, or training, in existence on the date of enactment of this section.

SEC. 10362. ASTRONOMY AND SATELLITE CONSTELLATIONS.

The Director shall support research into and the design, development, and testing of mitigation measures to address the potential impact of satellite constellations on Foundation scientific programs by—

(1) making awards on a competitive basis to support study of the potential impacts of satellite constellations on ground-based optical, infrared, and radio astronomy, including through existing programs such Spectrum and Wireless Innovation enabled by Future Technologies (SWIFT) and the Spectrum Innovation Initiative;

(2) supporting research on potential satellite impacts and benefits and mitigation strategies to be carried out at one or more Foundation supported Federally Funded Research and Development Centers or major multiuser research facilities as defined in section 110(g) of the American Innovation and Competitiveness Act (42 U.S.C. 1862s–2(g)), as appropriate; and

(3) supporting workshops related to the potential impact of satellite constellations on scientific research and how those constellations could be used to improve scientific research.

SEC. 10363. RESEARCH ON THE IMPACT OF INFLATION.

(a) IN GENERAL.—The Director may make awards, on a competitive merit-reviewed basis, to institutions of higher education or nonprofit organizations (or consortia of such institutions or organizations) to support research to improve our understanding of the impact of inflation.

(b) USE OF FUNDS.—Activities funded by an award under this section may include—

(1) measuring the economic impact of inflation on the American people, including an analysis of cost-of-living and wage impacts;

(2) considering the impact of inflation on American international competitiveness;

(3) evaluating the impact of inflation on rural and underserved communities throughout the country;

(4) assessing the ways inflation could impact future American generations; and

(5) evaluating the impact of policymaking on inflation, including the impact of further Government spending.

(c) COORDINATION TO AVOID DUPLICATION.—In making awards under this section, the Director shall, for purposes of avoiding duplication of activities and research, consult, collaborate, and coordinate with the programs and policies of other relevant Federal agencies.

SEC. 10364. MICROGRAVITY UTILIZATION POLICY.

(a) SENSE OF CONGRESS.—It is the sense of Congress that space technology and the utilization of the microgravity environment for science, engineering, and technology development is critical to long-term competitiveness with near-peer competitors, including China.

(b) POLICY.—To the extent appropriate during an award period, the Foundation shall facilitate access by recipients of Foundation awards to the microgravity environment, including in private sector platforms, for the development of science, engineering, and technology relevant to the award.

(c) REPORT.—Not later than 180 days after the date of enactment of this Act, the Director shall provide to the appropriate committees of Congress a report on the Foundation's plan for facilitating awardee access to the microgravity environment.

SEC. 10365. RECOGNITION OF THE ARECIBO OBSERVATORY.

(a) FINDINGS.—Congress finds the following:

(1) The Department of Defense began developing the Arecibo Observatory located in Barrio Esperanza, Arecibo, Puerto Rico, during the 1950s, and its characteristic instrument, a large radio telescope of 305 meters in diameter was completed in 1963.

(2) The facility was later owned by the National Science Foundation, and supported by the National Aeronautics and Space Administration and various university partners.

(3) The Arecibo Observatory's 305-meter fixed spherical radio telescope, was the world's largest single-dish radio telescope until the Five-Hundred-Meter Aperture Spherical Radio Telescope located in Gizhou, China, began observing in 2016.

(4) The 305-meter radio telescope made unparalleled contributions to the fields of radio astronomy, planetary, and atmospheric sciences, and played a role in inspiring thousands of students in Puerto Rico, the Nation, and the world to pursue careers in STEM fields through the Arecibo Observatory Education and Public Outreach Programs.

(5) The radio telescope significantly advanced the field of radio astronomy, including the first indirect detection of gravitational waves, the first detection of extrasolar planets, innumerable contributions to the field of time domain astronomy and the study of the interstellar medium, and played a key role in the search for extraterrestrial intelligence.

(6) The Arecibo Observatory had the best planetary radar system in the world, used by the National Aeronautics and Space Administration for near-Earth object detection and was an essential part of the agency's planetary defense program.

(7) The planetary radar at the Arecibo Observatory has contributed fundamentally and significantly to the knowledge of the solar system.

(8) The Arecibo Observatory's Incoherent Scatter Radar and supporting facilities have provided fundamental understanding of the ionosphere and upper atmosphere, and the interface between the atmosphere and space that protects the planet from solar wind, meteors, and other potential threats.

(9) December 1, 2021, marks the 1-year anniversary of the uncontrolled collapse sustained by the radio telescope after a series of cable failures in tower 4.

(b) SENSE OF CONGRESS.—It is the sense of Congress that the Congress—

(1) acknowledges the loss of the Arecibo Observatory's radio telescope due to its collapse and its implications for the loss of a unique world-class multidisciplinary science facility which conducted research in the areas of space and atmospheric sciences, radar astronomy and planetary sciences, astronomy, and astrophysics;

(2) acknowledges that the uncontrolled collapse of the 305-meter radio telescope represents a loss of astronomical observation capabilities, scientific research and development, planetary defense capabilities, and applied science capabilities for the United States;

(3) recognizes the rich scientific, educational, and economic benefits that the Arecibo Telescope has made to the people of Puerto Rico, the Nation, and the world;

(4) recognizes the work and contributions made by the thousands of dedicated staff who have supported the Arecibo Observatory for close to 6 decades;

(5) commends the National Science Foundation for convening a virtual workshop in June 2021, to explore ideas for future scientific and educational activities at the Arecibo Observatory; and

(6) encourages the National Science Foundation, in consultation with other Federal agencies, to explore opportunities for strengthening and expanding the role of the Arecibo Observatory in Puerto Rico through education, outreach, and diversity programs, and future research capabilities and technology at the site.

Subtitle F—Research Infrastructure

SEC. 10371. FACILITY OPERATION AND MAINTENANCE.

(a) IN GENERAL.—The Director shall continue the Facility Operation Transition pilot program for a total of 5 years.

(b) COST SHARING.—The Facility Operation Transition program shall provide funding for 10 to 50 percent of the operations and maintenance costs for major research facilities that are within the first five years of operation, where the share is determined based on—

(1) the operations and maintenance costs of the major research facility; and

(2) the capacity of the managing directorate or division to absorb such costs.

(c) REPORT.—After the fifth year of the pilot program, the Director shall transmit a report to Congress that includes—

(1) an assessment, that includes feedback from the research community, of the effectiveness of the pilot program for—

(A) supporting research directorates and divisions in balancing investments in research grants and funding for the initial operation and maintenance of major facilities;

(B) incentivizing the development of new world-class facilities;

(C) facilitating interagency and international partnerships;

(D) funding core elements of multi-disciplinary facilities; and

(E) supporting facility divestment costs; and

(2) if deemed effective, a plan for permanent implementation of the pilot program.

SEC. 10372. REVIEWS.

The Director shall periodically carry out reviews within each of the directorates and divisions to assess the cost and benefits of extending the operations of research facilities that have exceeded their planned operational lifespan.

SEC. 10373. HELIUM CONSERVATION.

(a) MAJOR RESEARCH INSTRUMENTATION SUPPORT.—

(1) IN GENERAL.—The Director shall support, through the Major Research Instrumentation program, proposal requests that include the purchase, installation, operation, and maintenance of equipment and instrumentation to reduce consumption of helium.

(2) COST SHARING.—The Director may waive the cost-sharing requirement for helium conservation measures for non-Ph.D.-granting institutions of higher education and Ph.D.-granting institutions of higher education that are not ranked among the top 100 institutions receiving Federal research and development funding, as documented by the National Center for Science and Engineering Statistics.

(b) ANNUAL REPORT.—No later than 1 year after the date of enactment of this Act and annually for the subsequent two years, the Director shall submit an annual report to Congress on the use of funding awarded by the Foundation for the purchase and conservation of helium. The report should include—

(1) the volume and price of helium purchased;

(2) changes in pricing and availability of helium; and

(3) any supply disruptions impacting a substantial number of institutions.

SEC. 10374. ADVANCED COMPUTING.

(a) COMPUTING NEEDS.—To gather information about the computational needs of Foundation-funded projects, the Director shall require award proposals submitted to the Foundation, as appropriate, to include estimates of computational resource needs for projects that require use of advanced computing. The Director shall encourage and provide access to tools that facilitate the inclusion of these measures, including those identified in the 2016 National Academies report entitled ''Future Directions for NSF Advanced Computing Infrastructure to Support U.S. Science and Engineering in 2017–2020''.

(b) REPORTS.—The Director shall document and publish every two years a summary of the amount and types of advanced computing capabilities that are needed to fully meet the Foundation's project needs as identified under subsection (a).

(c) ROADMAP.—To set priorities and guide strategic decisions regarding investments in advanced computing capabilities, the Director shall develop, publish, and regularly update a 5-year advanced computing roadmap that—

(1) describes the advanced computing resources and capabilities that would fully meet anticipated project needs, including through investments in the Mid-Scale Research Infrastructure program and the Major Research Equipment and Facilities Construction account;

(2) draws on community input, information contained in research proposals, allocation requests, insights from Foundation-funded cyberinfrastructure operators, and Foundation-wide information gathering regarding community needs;

(3) considers computational needs of planned major facilities;

(4) reflects anticipated technology trends;

(5) informs users and potential partners about future facilities and services;

(6) addresses the needs of groups historically underrepresented in STEM and geographic regions with low availability and high demand for advanced computing resources;

(7) considers how Foundation-supported advanced computing capabilities can be leveraged for activities through the Directorate for Technology, Innovation, and Partnerships; and

(8) provides an update to Congress about the level of funding necessary to fully meet computational resource needs for the research community.

(d) SECURING AMERICAN RESEARCH FROM CYBER THEFT.—

(1) NETWORKING AND INFORMATION TECHNOLOGY RESEARCH AND DEVELOPMENT UPDATE.—Section 101(a)(1) of the High-Performance Computing Act of 1991 (15 U.S.C. 5511) is amended—

(A) by moving the margins of subparagraph (D) and each of subparagraphs (J) through (O) two ems to the left;

(B) by redesignating subparagraphs (J) through (O) as subparagraphs (K) through (P), respectively; and

(C) by inserting after subparagraph (I) the following:

''(J) provide for improving the security, reliability, and resiliency of computing and networking systems used by institutions of higher education and other nonprofit research institutions for the processing, storage and transmission of sensitive federally funded research and associated data;''.

(2) COMPUTING ENCLAVE PILOT PROGRAM.—

(A) IN GENERAL.—The Director, in consultation with the Director of the National Institute of Standards and Technology and the Secretary of Energy, and the heads of other relevant Federal departments and agencies, shall establish a pilot program to make awards to ensure the security of federally supported research data and to assist regional institutions of higher education and their researchers in compliance with regulations regarding the safeguarding of sensitive information and other relevant regulations and Federal guidelines.

(B) STRUCTURE.—In carrying out the pilot program established pursuant to subparagraph (A), the Director shall select, for the development, installation, maintenance, or sustainment of secure computing enclaves, three institutions of higher education that have an established graduate student program and a demonstrated history of working with secure information, consistent with appropriate security protocols.

(C) REGIONALIZATION.—

(i) IN GENERAL.—In selecting universities pursuant to subparagraph (B), the Director shall give preference to institutions of higher education with the capability of serving other regional universities.

(ii) GEOGRAPHIC DISPERSAL.—The enclaves should be geographically dispersed to better meet the needs of regional interests.

(D) PROGRAM ELEMENTS.—The Director shall work with institutions of higher education selected pursuant to subparagraph (B) to—

(i) develop an approved design blueprint for compliance with Federal data protection protocols;

(ii) develop a comprehensive and confidential list, or a bill of materials, of each binary component of the software, firmware, or product that is required to deploy additional secure computing enclaves;

(iii) develop templates for all policies and procedures required to operate the secure computing enclave in a research setting;

(iv) develop a system security plan template; and

(v) develop a process for managing a plan of action and milestones for the secure computing enclave.

(E) SUSTAINABILITY.—In reviewing applications for awards, the Director shall review and consider plans and prospects of the applicant institution of higher education to ensure long-term sustainability of the computing enclave, beyond the availability of Federal funds.

(F) DURATION.—Subject to other availability of appropriations, the pilot program established pursuant to subparagraph (A) shall operate for not less than 3 years.

(G) REPORT.—

(i) IN GENERAL.—The Director shall report to Congress not later than 6 months after the completion of the pilot program under subparagraph (A).

(ii) CONTENTS.—The report required under clause (i) shall include—

(I) an assessment of the pilot program under subparagraph (A), including an assessment of the security benefits provided by such secure computing enclaves;

(II) recommendations related to the value of expanding the network of secure computing enclaves; and

(III) recommendations on the efficacy of the use of secure computing enclaves by other Federal agencies in a broader effort to expand security of Federal research.

(H) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Director, $38,000,000 for fiscal years 2023 through 2025, to carry out the activities outlined in this paragraph.

SEC. 10375. NATIONAL SECURE DATA SERVICE.

(a) IN GENERAL.—The Director, in consultation with the Director of the Office of Management and Budget and the interagency committee established under section 5103 of the National Artificial Intelligence Initiative Act of 2020 (15 U.S.C. 9415), shall establish a demonstration project to develop, refine, and test models to inform the full implementation of the Commission on Evidence-Based Policymaking recommendation for a governmentwide data linkage and access infrastructure for statistical activities conducted for statistical purposes, as defined in chapter 35 of title 44, United States Code.

(b) ESTABLISHMENT.—Not later than one year after the date of enactment of this Act, the Director shall establish a National Secure Data Service demonstration project. The National Secure Data Service demonstration project shall be—

(1) aligned with the principles, best practices, and priority actions recommended by the Advisory Committee on Data for Evidence Building, to the extent feasible; and

(2) operated directly by or via a contract that is managed by the National Center for Science and Engineering Statistics.

(c) DATA.—In carrying out this section, the Director shall engage with Federal and State agencies to collect, acquire, analyze, report, and disseminate statistical data in the United States and other nations to support governmentwide evidence-building activities consistent with the Foundations for Evidence-Based Policymaking Act of 2018.

(d) VOLUNTARY PARTICIPATION.—Participation in the National Secure Data Service demonstration project by Federal and State agencies shall be voluntary.

(e) PRIVACY AND CONFIDENTIALITY PROTECTIONS.—If the Director issues a management contract under subsection (b), the recipient shall be designated as an ''agent'' under subchapter III of chapter 35 of title 44, United States Code, with all requirements and obligations for protecting confidential information delineated in the Confidential Information Protection and Statistical Efficiency Act of 2018 and the Privacy Act of 1974.

(f) TECHNOLOGY AND PRIVACY STANDARDS.—In carrying out this subsection, the Director shall—

(1) consider application and use only of systems and technologies that incorporate protection measures to reasonably ensure confidential data and statistical products are protected in accordance with obligations under subchapter III of chapter 35 of title 44, United States Code, including systems and technologies that ensure—

(A) raw data and other sensitive inputs are not accessible to recipients of statistical outputs from the National Secure Data Service demonstration project;

(B) no individual entity's data or information is revealed by the National Secure Data Service demonstration project platform to any other party in an identifiable form;

(C) no information about the data assets used in the National Secure Data Service demonstration project is revealed to any other party, except as incorporated into the final statistical output;

(D) the National Secure Data Service demonstration project permits only authorized analysts to perform statistical queries necessary to answer approved project questions, and prohibits any other queries; and

(E) the National Secure Data Service demonstration project conducts privacy risk assessments to minimize the privacy risks to individual entities whose data has been made available by a reporting entity, including those privacy risks that could result from data breaches of any system operated by the reporting entity, as well as for determining approved project questions under subparagraph (D) to minimize the privacy risks to individuals affected by uses of the statistical output; and

(2) the National Secure Data Service demonstration project shall implement reasonable measures commensurate with the risks to individuals' privacy to achieve the outcomes under subparagraphs (A) through (E) of paragraph (1), which may include the appropriate application of privacy-enhancing technologies and appropriate measures to minimize or prevent reidentification risks consistent with any applicable guidance or regulations issued under subchapter III of chapter 35 of title 44, United States Code.

(g) TRANSPARENCY.—The National Secure Data Service established under subsection (b) shall maintain a public website with up-to-date information on supported projects.

(h) REPORT.—Not later than 2 years after the date of enactment of this Act, the National Secure Data Service demonstration project established under subsection (b) shall submit a report to Congress that includes—

(1) a description of policies for protecting data, consistent with applicable Federal law;

(2) a comprehensive description of all completed or active data linkage activities and projects;

(3) an assessment of the effectiveness of the demonstration project for mitigating risks and removing barriers to a sustained implementation of the National Secure Data Service as recommended by the Commission on Evidence-Based Policymaking; and

(4) if deemed effective by the Director, a plan for scaling up the demonstration project to facilitate data access for evidence building while ensuring transparency and privacy.

(i) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Director to carry out this subsection $9,000,000 for each of fiscal years 2023 through 2027.

Subtitle G—Directorate for Technology, Innovation, and Partnerships

SEC. 10381. ESTABLISHMENT.

There is established within the Foundation the Directorate for Technology, Innovation, and Partnerships to advance research and development, technology development, and related solutions to address United States societal, national, and geostrategic challenges, for the benefit of all Americans.

SEC. 10382. PURPOSES.

The purposes of the Directorate established under section 10381 are to—

(1) support use-inspired and translational research and accelerate the development and use of federally funded research;

(2) strengthen United States competitiveness by accelerating the development of key technologies; and

(3) grow the domestic workforce in key technology focus areas, and expand the participation of United States students and researchers in areas of societal, national, and geostrategic importance, at all levels of education.

SEC. 10383. ACTIVITIES.

Subject to the availability of appropriated funds, the Director shall achieve the purposes described in section 10382 by making awards through the Directorate that—

(1) support transformational advances in use-inspired and translational research and technology development, including through diverse funding mechanisms and models at different scales, to include convergence accelerators and projects designed to achieve specific technology metrics or objectives;

(2) encourage the translation of research into innovations, processes, and products, including by—

(A) engaging researchers on topics relevant to United States societal, national, and geostrategic challenges, including by educating researchers on engaging with end users and the public;

(B) advancing novel approaches and reducing barriers to technology transfer, including through intellectual property frameworks between academia and industry, nonprofit entities, venture capital communities, and approaches to technology transfer for applications with public benefit that may not rely on traditional commercialization tools; and

(C) establishing partnerships that connect researchers and research products to businesses, accelerators, and incubators that enable research uptake, prototype development and scaling, entrepreneurial education, and the formation and growth of new companies;

(3) develop mutually-beneficial research and technology development partnerships and collaborations among institutions of higher education, including historically Black colleges and universities, Tribal Colleges or Universities, minority-serving institutions, emerging research institutions, EPSCoR institutions, and nonprofit organizations, labor organizations, businesses and other for-profit entities, Federal or State agencies, local or Tribal governments, civil society organizations, other Foundation directorates, national labs, field stations and marine laboratories, and, as appropriate, international entities and binational research and development foundations and funds, excluding foreign entities of concern;

(4) partner with other directorates and offices of the Foundation for specific projects or research areas including—

(A) to pursue basic questions about natural, human, and physical phenomena that could enable advances in the challenges and key technology focus areas under section 10387;

(B) to study questions that could affect the design (including human interfaces), safety, security, operation, deployment, or the social and ethical consequences of technologies and innovations in the challenges and key technology focus areas under section 10387, including the development of technologies and innovations that complement or enhance the abilities of workers and impact of specific innovations on domestic jobs and equitable opportunity; and

(C) to further the creation of a domestic workforce capable of advancing, using, and adapting to the key technology focus areas;

(5) build capacity and infrastructure for use-inspired and translational research at institutions of higher education across the United States, including by making awards to support administrative activities that advance development, operation, integration, deployment, and sharing of innovation;

(6) support the education, mentoring, and training of undergraduate students, graduate students, and postdoctoral researchers, to both advance use-inspired and translational research and to address workforce challenges, through scholarships, fellowships, and traineeships; and

(7) identify social, behavioral, and economic drivers and consequences of technological innovations that could enable advances in the challenges and key technology focus areas under section 10387.

SEC. 10384. REQUIREMENTS.

In carrying out the activities under the Directorate, the Director shall ensure the programmatic work of the Directorate and Foundation—

(1) utilizes the full potential of the United States workforce by avoiding undue geographic concentration of research and development and education funding across the United States, and encourages broader participation in the key technology focus area workforce by populations historically underrepresented in STEM; and

(2) incorporates a worker perspective through participation by labor organizations and workforce training organizations.

SEC. 10385. ASSISTANT DIRECTOR.

(a) IN GENERAL.—The Director shall appoint an Assistant Director responsible for the management of the Directorate established under this subtitle, in the same manner as other Assistant Directors of the Foundation are appointed.

(b) QUALIFICATIONS.—The Assistant Director shall be an individual, who by reason of professional background and experience, is specially qualified to—

(1) advise the Director on all matters pertaining to use-inspired and translational research, development, and commercialization at the Foundation, including partnership with the private sector and other users of Foundation funded research; and

(2) develop and implement the necessary policies and procedures to promote a culture of use-inspired and translational research within the Directorate and across the Foundation and carry out the responsibilities under subsection (c).

(c) RESPONSIBILITIES.—The responsibilities of the Assistant Director shall include—

(1) advising the Director on all matters pertaining to use-inspired and translational research and development activities at the Foundation, including effective practices for convergence research, and the potential impact of Foundation research on United States societal, national and geostrategic challenges;

(2) identifying opportunities for and facilitating coordination and collaboration, where appropriate, on use-inspired and translational research, development, adoption, and commercialization—

(A) among the offices, directorates, and divisions within the Foundation; and

(B) between the Foundation and stakeholders in academia, the private sector, including nonprofit entities, labor organizations, Federal or State agencies, and international entities, as appropriate;

(3) ensuring that the activities carried out under this subtitle do not substantially and unnecessarily duplicate activities supported by other parts of the Foundation or other relevant Federal agencies;

(4) approving all new programs within the Directorate;

(5) developing and testing diverse merit-review models and mechanisms for selecting and providing awards for use-inspired and translational research and development at different scales, from individual investigator awards to large multi-institution collaborations;

(6) assessing the success of programs;

(7) administering awards to achieve the purposes described in section 10382; and

(8) performing other such duties pertaining to the purposes in section 10382 as are required by the Director.

(d) RELATIONSHIP TO THE DIRECTOR.—The Assistant Director shall report to the Director.

(e) RELATIONSHIP TO OTHER PROGRAMS.—No other directorate within the Foundation shall report to the Assistant Director.

SEC. 10386. ADVISORY COMMITTEE.

(a) IN GENERAL.—In accordance with the Federal Advisory Committee Act (5 U.S.C. App.) the

Director shall establish an advisory committee to assess, and make recommendations regarding, the activities carried out under this subtitle.

(b) MEMBERSHIP.—The advisory committee members shall—

(1) be individuals with relevant experience or expertise, including individuals from industry and national labs, educators, academic subject matter experts, including individuals with knowledge of key technology focus areas and their impact on United States national security and geostrategic leadership, the technical and social dimensions of science and technology, technology transfer experts, labor organizations, representatives of civil society, and other nongovernmental organizations; and

(2) consist of at least 10 members broadly representative of stakeholders, including no less than 3 members from the private sector, none of whom shall be an employee of the Federal Government, and no less than 1 member with significant expertise in United States national security and economic competitiveness.

(c) RESPONSIBILITIES.—The Committee's responsibilities shall include—

(1) reviewing and advising on activities carried out under this subtitle;

(2) proposing strategies for fulfilling the purposes in section 10382;

(3) proposing potential areas of research, particularly as relevant to United States societal, national, and geostrategic challenges; and

(4) other relevant issues as determined by the Director.

SEC. 10387. CHALLENGES AND FOCUS AREAS.

(a) IN GENERAL.—In consultation with the Assistant Director, the Board, and the interagency working group established under subtitle F of title VI, the Director shall identify, and annually review and update as appropriate, a list of—

(1) not more than 5 United States societal, national, and geostrategic challenges that may be addressed by technology to guide activities under this subtitle; and

(2) not more than 10 key technology focus areas to guide activities under this subtitle.

(b) INITIAL LIST OF SOCIETAL, NATIONAL, AND GEOSTRATEGIC CHALLENGES.—The initial list of societal, national, and geostrategic challenges are the following:

(1) United States national security.

(2) United States manufacturing and industrial productivity.

(3) United States workforce development and skills gaps.

(4) Climate change and environmental sustainability.

(5) Inequitable access to education, opportunity, or other services.

(c) INITIAL LIST OF KEY TECHNOLOGY FOCUS AREAS.—The initial list of key technology focus areas are the following:

(1) Artificial intelligence, machine learning, autonomy, and related advances.

(2) High performance computing, semiconductors, and advanced computer hardware and software.

(3) Quantum information science and technology.

(4) Robotics, automation, and advanced manufacturing.

(5) Natural and anthropogenic disaster prevention or mitigation.

(6) Advanced communications technology and immersive technology.

(7) Biotechnology, medical technology, genomics, and synthetic biology.

(8) Data storage, data management, distributed ledger technologies, and cybersecurity, including biometrics.

(9) Advanced energy and industrial efficiency technologies, such as batteries and advanced nuclear technologies, including but not limited to for the purposes of electric generation (consistent with section 15 of the National Science Foundation Act of 1950 (42 U.S.C. 1874).

(10) Advanced materials science, including composites 2D materials, other next-generation materials, and related manufacturing technologies.

(d) RELATIONSHIP BETWEEN UNITED STATES SOCIETAL, NATIONAL, AND GEOSTRATEGIC CHALLENGES AND KEY TECHNOLOGY FOCUS AREAS.—

(1) In updating the list under subsection (a)(1), the Director shall evaluate national and global technology trends.

(2) In updating the list under subsection (a)(2), the Director shall consider the impact of the selected technologies on United States societal, national, and geostrategic challenges.

(3) The list under subsection (a)(2) may, but is not required to, align directly with the list under subsection (a)(1).

(4) Nothing under this section shall prevent the Director from making limited investments in technologies or areas not identified in subsection (a)(1) or subsection (a)(2).

(e) REVIEW AND UPDATES.—The Director, in coordination with the interagency working group established under subtitle F of title VI and in consultation with the Director of National Intelligence and the Director of the Federal Bureau of Investigation, shall annually review and update as appropriate, the list of key technology focus areas for purposes of this division. As part of the annual review, the Director—

(1) shall consider input from relevant industries and stakeholders;

(2) may consider the challenges and recommendations identified in the reports required by sections 206 and 206B of the National Science and Technology Policy, Organization, and Priorities Act of 1976, as added by section 10611 and 10613 of this division and in other relevant reports, such as technology and global trend reports from the defense and intelligence communities;

(3) shall consider the potential impact of the key technology focus areas on addressing societal, national, and geostrategic challenges; and

(4) subject to the limitation under subsection (a), may add or delete key technology focus areas in light of shifting national needs or competitive threats to the United States (including for reasons of the United States or other countries having advanced or fallen behind in a technological area).

(f) REPORTING.—At the conclusion of the annual review and update process required by subsection (e), the Director, in consultation with other Federal research agencies, as appropriate, shall deliver a report to Congress detailing—

(1) the key technology focus areas and rationale for their selection;

(2) the societal, national, and geostrategic challenges and rationale for their selection;

(3) the role of the Foundation in advancing the key technology focus areas;

(4) the impact, including to the academic research community, of any changes to the key technology focus areas; and

(5) the activities and partnerships between the Directorate and the private sector.

(g) DETAILED DESCRIPTION.—The National Science Foundation shall, in coordination with the Office of Management and Budget, submit as part of their annual budget requests to Congress, a detailed description of the activities to be funded under this subtitle, including an explanation of how the requested funding is complementary and not redundant of programs, efforts, and infrastructure undertaken or supported by other relevant Federal agencies.

(h) NATIONAL ACADEMIES.—Not later than 5 years after the date of enactment of this Act, the Director shall contract with the National Academies to conduct a review of the key technology focus areas and the societal, national, and geostrategic challenges, including—

(1) an assessment of their selection process;

(2) an assessment of their relevance to the purposes of the Directorate, including to solving challenges with social, economic, health, scientific, and national security implications;

(3) a review of whether Federal investment in the key technology focus areas have resulted in new domestic manufacturing capacity and job creation;

(4) an assessment of any critical, new emerging areas;

(5) an assessment of Federal investments in education and workforce development to support the key technology focus areas; and

(6) an assessment of relative balance in leadership in addressing the key technology focus areas between the United States, allied and partner countries, and the People's Republic of China.

SEC. 10388. REGIONAL INNOVATION ENGINES.

(a) IN GENERAL.—From amounts made available to the Directorate, the Director shall make awards to eligible entities for the planning, establishment, and support of Regional Innovation Engines.

(b) PURPOSE.—The purpose of the Regional Innovation Engines shall be to—

(1) advance multidisciplinary, collaborative, use-inspired and translational research, technology development, in key technology focus areas;

(2) address regional, national, societal, or geostrategic challenges;

(3) leverage the expertise of multi-disciplinary and multi- sector partners, including partners from private industry, nonprofit organizations, and civil society organizations; and

(4) support the development of scientific, innovation, entrepreneurial, and STEM educational capacity within the region of the Regional Innovation Engine to grow and sustain regional innovation.

(c) USES OF FUNDS.—Funds awarded under this section may be used by a Regional Innovation Engine to—

(1) conduct use-inspired and translational research and technology development to advance innovation in at least one of the key technology focus areas and to help solve a compelling regional, national, societal, or geostrategic challenge;

(2) further the development, adoption, and commercialization of innovations in key technology focus areas, including through support for proof-of-concept development, and through partnership with other Federal agencies and Federal laboratories, industry, including startup companies, labor organizations, civil society organizations, and State, territorial, local, and Tribal governments;

(3) develop and manage, or facilitate access to, test beds and instrumentation, which may include fabrication facilities and cyberinfrastructure, to advance the development, integration, and demonstration of new, innovative technologies, including hardware or software;

(4) establish traineeship programs for graduate students who pursue degrees and research related to the key technology focus areas leading to a masters or doctorate degree by providing funding and other assistance, and opportunities for research experiences in government or industry related to the students' studies;

(5) engage in outreach and engagement in the region to broaden participation in the activities of the Regional Innovation Engine; and

(6) reimburse, in part or in whole, the cost of instrumentation, technology transfer, and commercialization activities, including patenting and licensing, and for operations and staff, as the Director determines appropriate.

(d) SELECTION PROCESS.—In making awards under this subtitle, the Director shall consider, in addition to the scientific and technical merit of the proposal, the extent to which the activities and locations proposed—

(1) have the potential to create an innovation ecosystem, or enhance existing ecosystems and contribute to job creation in a region;

(2) demonstrate a capacity to engage and partner with multiple types of institutions of

higher education, industry, labor, nonprofit organizations, civil society organizations, other Federal agencies, Federal laboratories, State, local, and Tribal governments, and other appropriate organizations, including to inform research directions and account for ethical, societal, safety, and security implications relevant to the potential applications of the research;

(3) demonstrate a capacity to broaden participation of populations historically underrepresented in STEM in the activities of the Regional Innovation Engine; and

(4) demonstrate a plan and capability to prevent the inappropriate use or dissemination of the research and technology, including research results, data, and intellectual property, as appropriate and consistent with the requirements of the relevant award.

(e) REQUIREMENTS.—

(1) ELIGIBILITY.—For the purposes of this section, an ''eligible entity'' means an institution of higher education, a nonprofit organization, a private sector entity, or a consortium thereof.

(2) PARTNERSHIPS.—To be eligible for an award under this section an eligible entity—

(A) shall include in its proposal partnership with 1 or more institution that is—

(i) a historically Black college or university;

(ii) a Tribal College or University;

(iii) a minority-serving institution;

(iv) an EPSCoR institution;

(v) an emerging research institution; or

(vi) a community college;

(B) may include partnership with 1 or more—

(i) additional entities described in paragraph (2)(A);

(ii) industry entities, including startups, small businesses, and public-private partnerships;

(iii) economic development organizations or venture development organizations, as such terms are defined in section 28(a) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 13701 et seq.), as added by section 10621 of this division;

(iv) National Laboratories;

(v) Federal laboratories, as defined in section 4 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3703);

(vi) Federal research facilities;

(vii) labor organizations;

(viii) entities described in paragraph (1) or (2) from allied or partner countries;

(ix) other entities to be vital to the success of the program, as determined by the Director;

(x) binational research and development foundations and funds, excluding those affiliated with foreign entities of concern, as defined in section 10612; and

(xi) Engineer Research and Development Center laboratories of the Army Corps of Engineers; and

(C) shall include as part of its proposal a plan for—

(i) establishing a sustained partnership that is jointly developed and managed, draws from the capacities of each institution, and is mutually beneficial; and

(ii) documents governance and management plans, financial contributions from non-Federal sources, and plans for ownership and use of any intellectual property.

(3) PROMOTING PARTNERSHIPS.—In making awards under this section, the Director shall encourage applicants for a Regional Innovation Engine that include multiple regional partners as described in subsection (e)(2).

(4) GEOGRAPHIC DISTRIBUTION.—In making awards under this section, the Director shall take into consideration the extent to which the proposals expand the geographic distribution of the Regional Innovation Engines, including by giving special consideration to rural-serving institutions of higher education.

(5) RESOURCE AVAILABILITY.—The Director shall ensure that any eligible entity receiving an award under this section shall—

(A) provide information on relevant currently existing resources available to the proposing team from all internal and external sources, including all partner organizations; and

(B) include letters of collaboration from partner organizations that include information on resource contributions committed by such partners.

(f) COLLABORATION WITH REGIONAL TECHNOLOGY HUBS.—Each Regional Innovation Engine established under this section may collaborate and participate in, as appropriate, the activities of any regional technology hub designated under section 28 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3701 et seq.), as added by section 10621.

(g) DURATION.—

(1) INITIAL PERIOD.—An award under this section shall be for an initial period of 5 years.

(2) RENEWAL.—An established Regional Innovation Engine may apply for, and the Director may award, extended funding for periods of 5 years on a merit-reviewed basis.

(h) COMPETITIVE, MERIT-REVIEW.—In making awards under this section, the Director shall—

(1) use a competitive, merit review process that includes peer review by a diverse group of individuals with relevant expertise from both the private and public sectors; and

(2) ensure the focus areas of the Regional Innovation Engines do not substantially and unnecessarily duplicate the efforts of any other Regional Innovation Engine or any other similar effort at another Federal agency.

(i) COLLABORATION.—In making awards under this section, the Director may collaborate with Federal departments and agencies whose missions contribute to or are affected by the technology focus area of the institute.

SEC. 10389. TRANSLATION ACCELERATOR.

(a) IN GENERAL.—The Director shall establish Translation Accelerators to further the research, development, and commercialization of innovation in the key technology focus areas.

(b) PARTNERSHIPS.—

(1) IN GENERAL.—Each Translation Accelerator shall be comprised of a partnership including 2 or more of the following entities:

(A) An institution of higher education.

(B) A for-profit company.

(C) A nonprofit organization.

(D) A Federal agency.

(E) Another entity, if that entity is determined by the Director to be vital to the success of the program.

(2) INSTITUTIONAL OR ORGANIZATIONAL LEVEL.—The Director shall work to ensure that such partnerships exist at the institutional or organization level, rather than solely at the principal investigator level.

(3) COST SHARE.—Not less than 25 percent of the funding for an institute shall be provided by non-Federal entities.

(4) NUMBER OF CENTERS AND INSTITUTES ESTABLISHED.—The Director shall endeavor to establish a balance in the number of Regional Innovation Engines and Translation Accelerators.

(c) AUTHORIZATION OF APPROPRIATIONS.—From within funds authorized for the Directorate for Technology, Innovation, and Partnerships, there are authorized to carry out the activities under this section and section 10388 $6,500,000,000 for fiscal years 2023 through 2027.

SEC. 10390. TEST BEDS.

(a) PROGRAM AUTHORIZED.—

(1) IN GENERAL.—From amounts made available for the Directorate, the Director, in coordination with the Director of the National Institute of Standards and Technology, the Secretary of Energy, and other Federal agencies, as determined appropriate by the Director, shall establish a program in the Directorate to make awards, on a competitive basis, to institutions of higher education, nonprofit organizations, or consortia thereof to establish and operate test beds, which may include fabrication facilities and cyberinfrastructure, to advance the development, operation, integration, deployment, and, as appropriate, demonstration of new, innovative critical technologies, which may include hardware or software.

(2) COORDINATION.—In establishing new test beds under this section, the Director shall ensure coordination with other test beds supported by the Foundation or other Federal agencies to avoid duplication and maximize the use of Federal resources.

(b) PROPOSALS.—An applicant for an award under this section shall submit a proposal to the Director, at such time, in such manner, and containing such information as the Director may reasonably require. The proposal shall, at a minimum, describe—

(1) the technology or technologies that will be the focus of the test bed;

(2) the goals of the work to be done at the test bed;

(3) how the applicant will assemble a workforce with the skills needed to operate the test bed;

(4) how the applicant will ensure broad access to the test bed;

(5) how the applicant will collaborate with firms in critical technologies, including through coordinated research and development and funding, to ensure that work in the test bed will contribute to the commercial viability of any technologies and will include collaboration from industry and labor organizations;

(6) how the applicant will encourage the participation of inventors and entrepreneurs and the development of new businesses;

(7) how the applicant will increase participation by populations that are underrepresented in STEM;

(8) how the applicant will demonstrate that the commercial viability of any new technologies will support the creation of high-quality domestic jobs;

(9) how the test bed will operate after Federal funding has ended;

(10) how the test bed will disseminate lessons and other technical information to United States entities or allied or partner country entities in the United States; and

(11) how the applicant plans to take measures to prevent the inappropriate use of research results, data, and intellectual property, as applicable and consistent with the requirements of the award.

(c) AUTHORIZED USE OF FUNDS.—A recipient of an award under this section may, consistent with the purposes of this section, use the award for the purchase of equipment and for the support of students, faculty and staff, and postdoctoral researchers.

(d) GEOGRAPHIC DIVERSITY.—In selecting award recipients under this section, the Director shall consider the extent to which proposals would expand the geographic diversity of test beds.

SEC. 10391. PLANNING AND CAPACITY BUILDING AWARDS.

(a) IN GENERAL.—Under the program established in section 508 of the America COMPETES Reauthorization Act of 2010 (42 U.S.C. 1862p–2) and the activities authorized under this section, from amounts made available to the Directorate, the Director, in coordination with other Federal agencies as determined appropriate by the Director, shall make awards, on a competitive basis, to eligible entities to advance the development, adoption, and commercialization of technologies, consistent with the purposes of the Directorate under section 10382.

(b) ELIGIBLE ENTITY.—To be eligible to receive an award under this section, an entity shall be—

(1) an institution of higher education, which may be a community college (or a consortium of such institutions);

(2) a nonprofit organization that is either affiliated with an institution of higher education or designed to support technology development or entrepreneurship; or

(3) a consortium that includes—

(A) an entity described in paragraph (1) or (2) as the lead award recipient; and

(B) one or more additional individuals or entities, which shall be—

(i) an economic development organization or similar entity that is focused primarily on improving science, technology, innovation, or entrepreneurship;

(ii) an industry organization or firm in a relevant technology or innovation sector;

(iii) an industry-experienced executive with entrepreneurship experience that is focused primarily on de-risking technologies from both a scientific and a business perspective; or

(iv) an individual or entity with industry and startup expertise, including a mentor network, across relevant technology or innovation sectors.

(c) USE OF FUNDS.—In addition to activities listed under section 10383, an eligible entity receiving an award under this section may use funds to—

(1) identify academic research with the potential for technology transfer and commercialization, particularly as relevant to the purposes of the Directorate under section 10382;

(2) ensure the availability of staff, including technology transfer professionals, entrepreneurs in residence, and other mentors as required to accomplish the purpose of this section;

(3) help offset the costs of patenting and licensing research products, both domestically and internationally;

(4) revise institution policies, including policies related to intellectual property and faculty entrepreneurship, and taking other necessary steps to implement relevant best practices for academic technology transfer;

(5) develop local, regional, and national partnerships among institutions of higher education and between institutions of higher education and private sector entities and other relevant organizations, including investors, with the purpose of building networks, expertise, and other capacity to identify promising research that may have potential market value and enable researchers to pursue further development and transfer of their ideas into possible commercial or other use;

(6) develop seminars, courses, and other educational opportunities for students, post-doctoral researchers, faculty, and other relevant staff at institutions of higher education to increase awareness and understanding of entrepreneurship, patenting, business planning, research security, and other areas relevant to technology transfer, and connect students and researchers to relevant resources, including mentors in the private sector; and

(7) create, support, or fund entities or competitions to allow entrepreneurial students and faculty to illustrate the commercialization potential of their ideas, including through venture funds of institution of higher education.

(d) LIMITATIONS ON FUNDING.—

(1) Awards made under this section shall be at least 3 years in duration and shall not exceed $1,000,000 per fiscal year.

(2) Awards made under this section shall not support the development or operation of capital investment funds.

(e) APPLICATION.—An eligible entity seeking funding under this section shall submit an application to the Director at such time, in such manner, and containing such information and assurances as such Director may require. The application shall include, at a minimum, a description of—

(1) how the eligible entity submitting an application plans to sustain the proposed activities beyond the duration of the award;

(2) the steps the applicant will take to enable technology transfer and adoption and why such steps are likely to be effective;

(3) how the applicant will encourage the training and participation of students and potential entrepreneurs and the transition of research results to practice, including the development of new businesses;

(4) as relevant, potential steps to drive economic growth in a particular region, by collaborating with industry, venture capital entities, non-profit organizations, and State and local governments within that region; and

(5) background information that the Director determines is relevant to demonstrate the success of the innovation and entrepreneurship support models proposed by the applicant to commercialize technologies.

(f) COLLABORATIVE INNOVATION RESOURCE CENTER PROGRAM.—

(1) IN GENERAL.—The Director shall make awards under this section to eligible entities to establish collaborative innovation resource centers that promote regional technology transfer and technology development activities available to more than one institution of higher education and to other entities in a region.

(2) USE OF FUNDS.—An eligible entity that receives an award under this subsection shall use award funds to carry out one or more of the following activities, to the benefit of the region in which the center is located:

(A) Providing start-ups and small business concerns (as defined in section 3 of the Small Business Act (15 U.S.C. 632)) within the region with access to facilities, scientific infrastructure, personnel, and other assets as required for technology maturation.

(B) Supporting entrepreneurial training for start-up and small business personnel.

(3) Providing engineering and entrepreneurial experiences and hands-on training for students enrolled in participating institutions of higher education.

(g) REPORTING ON COMMERCIALIZATION METRICS.—The Director shall establish—

(1) metrics related to commercialization for an award under this section; and

(2) a reporting schedule for recipients of such awards that takes into account both short- and long-term goals of the programs under this section.

(h) GEOGRAPHIC DIVERSITY.—The Director shall ensure regional and geographic diversity in issuing awards under this section.

(i) AUTHORIZATION OF APPROPRIATIONS.—From within funds authorized for the Directorate for Technology, Innovation, and Partnerships, there are authorized to carry out the activities under this section $3,100,000,000 for fiscal years 2023 through 2027.

SEC. 10392. ENTREPRENEURIAL FELLOWSHIPS.

(a) IN GENERAL.—The Director, acting through the Directorate for Technology, Innovation, and Partnerships, shall award fellowships to scientists and engineers to help develop leaders capable of maturing promising ideas and technologies from lab to market or other use and forge connections between academic research and the government, industry, financial sectors, and other end users.

(b) APPLICATION.—An applicant for a fellowship under this section shall submit to the Director an application at such time, in such manner, and containing such information as the Director may require. At a minimum, the Director shall require that applicants—

(1) have completed a doctoral degree in a STEM field no more than 5 years prior to the date of the application, or have otherwise demonstrated significant postbaccalaureate scientific research experience and are considered early career, according to requirements established by the Director; and

(2) have included in the application a proposal for how the fellow will be embedded in a host institution's research environment.

(c) OUTREACH.—The Director shall conduct program outreach to recruit fellowship applicants—

(1) from diverse research institutions;

(2) from all regions of the country; and

(3) from groups historically underrepresented in STEM fields.

(d) ADMINISTRATION AGREEMENTS.—The Director may enter into an agreement with a qualified third-party entity to administer the fellowships, subject to the provisions of this section.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Director a total of $125,000,000 for fiscal years 2023 through 2027, to carry out the activities outlined in this section.

SEC. 10393. SCHOLARSHIPS AND FELLOWSHIPS.

(a) IN GENERAL.—The Director, acting through the Directorate, shall fund undergraduate scholarships (including at community colleges), graduate fellowships and traineeships, and postdoctoral awards in the key technology focus areas.

(b) IMPLEMENTATION.—The Director may carry out subsection (a) by making awards—

(1) directly to students; and

(2) to institutions of higher education or consortia of institutions of higher education, including those institutions or consortia involved in operating Regional Innovation Engines established under section 10388.

(c) BROADENING PARTICIPATION.—In carrying out this section, the Director shall take steps to increase the participation of populations that are underrepresented in STEM, which may include—

(1) establishing or augmenting programs targeted at populations that are underrepresented in STEM;

(2) supporting traineeships or other relevant programs at historically Black colleges and universities, Tribal Colleges or Universities, and minority-serving institutions;

(3) enabling low-income populations to pursue associate, undergraduate, or graduate level degrees in STEM;

(4) addressing current and expected gaps in the availability or skills of the STEM workforce, or addressing needs of the STEM workforce, including by increasing educational capacity at institutions and by prioritizing awards to United States citizens, permanent residents, and individuals that will grow the domestic workforce; and

(5) addressing geographic diversity in the STEM workforce.

(d) ENCOURAGING INNOVATION.—In carrying out this section, the Director shall encourage innovation in graduate education, including through encouraging institutions of higher education to offer graduate students opportunities to gain experience in industry or Government as part of their graduate training, and through support for students in professional master's programs related to the key technology focus areas or to the societal, national, and geostrategic challenges.

(e) AREAS OF FUNDING SUPPORT.—Subject to the availability of funds to carry out this section, the Director shall—

(1) issue—

(A) postdoctoral awards,

(B) graduate fellowships and traineeships, inclusive of the NSF Research Traineeships and fellowships awarded under the Graduate Research Fellowship Program; and

(C) scholarships, including undergraduate scholarships, research experiences, and internships, including—

(i) scholarships to attend community colleges; and

(ii) research experiences and internships under sections 513, 514, and 515 of the America COMPETES Reauthorization Act of 2010 (42 U.S.C. 1862p–5; 1862p–6; 1862p–7);

(2) ensure that not less than 10 percent of the funds made available to carry out this section are used to support additional awards that focus on community college training, education, and teaching programs that increase the participation of populations that are historically underrepresented in STEM, including technical programs through programs such as the Advanced Technological Education program; and

(3) if funds remain after carrying out paragraphs (1) and (2) make awards to institutions

of higher education to enable the institutions to fund the development and establishment of new or specialized programs of study for graduate, undergraduate, or technical college students and the evaluation of the effectiveness of those programs of study.

(f) LOW-INCOME SCHOLARSHIP PROGRAM.—

(1) IN GENERAL.—The Director shall award scholarships to low-income individuals to enable such individuals to pursue associate, undergraduate, or graduate level degrees in STEM fields.

(2) ELIGIBILITY.—

(A) IN GENERAL.—To be eligible to receive a scholarship under this subsection, an individual—

(i) must be a citizen of the United States, a national of the United States (as defined in section 1101(a) of title 8), an alien admitted as a refugee under section 1157 of title 8, or an alien lawfully admitted to the United States for permanent residence;

(ii) shall prepare and submit to the Director an application at such time, in such manner, and containing such information as the Director may require; and

(iii) shall certify to the Director that the individual intends to use amounts received under the scholarship to enroll or continue enrollment at an institution of higher education (as defined in section 1001(a) of title 20) in order to pursue an associate, undergraduate, or graduate level degree in STEM fields designated by the Director.

(B) ABILITY.—Awards of scholarships under this subsection shall be made by the Director solely on the basis of the ability of the applicant, except that in any case in which 2 or more applicants for scholarships are deemed by the Director to be possessed of substantially equal ability, and there are not sufficient scholarships available to award one to each of such applicants, the available scholarship or scholarships shall be awarded to the applicants in a manner that will tend to result in a geographically wide distribution throughout the United States recipients' places of permanent residence.

(3) SCHOLARSHIP AMOUNT AND RENEWAL.—Section 414(d) of the American Competitiveness and Workforce Improvement Act of 1998 (42 U.S.C. 1869c) is amended in paragraph (3) by—

(A) striking '', except that the Director shall not award a scholarship in an amount exceeding $10,000 per year''; and

(B) striking ''4 years'' and inserting ''5 years''.

(4) AUTHORIZATION.—Of amounts authorized for the Directorate for Technology, Innovation, and Partnerships, $100,000,000 shall be authorized to carry out this subsection.

(g) EXISTING PROGRAMS.—The Director may use or augment existing STEM education programs of the Foundation and leverage education or entrepreneurial partners to carry out this section.

SEC. 10394. RESEARCH AND DEVELOPMENT AWARDS.

(a) IN GENERAL.—From amounts made available for the Directorate, the Director shall make awards, on a competitive basis, for research and technology development within the key technology focus areas, including investments that advance solutions to the challenges under section 10387.

(b) PURPOSE.—The purpose of the awards under this section shall be to accelerate technological advances and technology adoption in the key technology focus areas.

(c) RECIPIENTS.—Recipients of funds under this section may include institutions of higher education, research institutions, non-profit organizations, private sector entities, consortia, or other entities as defined by the Director.

(d) METRICS.—The Director may set metrics, including goals and deadlines, for the development and demonstration of technology as determined in the terms of the award, and may use such metrics to determine whether an award recipient shall be eligible for continued or follow-on funding.

(e) SHORT TERM TECHNOLOGY DEPLOYMENT.—The Director shall also make awards, including through the SBIR and STTR programs (as defined in section 9(e) of the Small Business Act (15 U.S.C. 638(e)), to expedite short-term technology deployment within a period of no longer than 24 months.

(f) SELECTION CRITERIA.—In selecting recipients for an award under this section, the Director shall consider, at a minimum—

(1) the relevance of the project to the challenges and the key technology focus areas under section 10387, and the potential of the project to result in transformational advances for such challenges and the key technology focus areas;

(2) the current status of similar technology, the limits of current practice, and the novelty and risks of the proposed project;

(3) the ethical, societal, safety, and security implications relevant to the application of the technology;

(4) the appropriateness of quantitative goals and metrics for evaluating the project and a plan for evaluating those metrics; and

(5) the path for developing and, as appropriate, commercializing the technology into products and processes in the United States.

(g) AUTHORIZATION OF APPROPRIATIONS.—From within funds authorized for the Directorate for Technology, Innovation, and Partnerships, there are authorized to carry out the activities under this section $1,000,000,000 for fiscal years 2023 through 2027.

SEC. 10395. SCALING INNOVATIONS IN PREK–12 STEM EDUCATION.

(a) IN GENERAL.—Taking into consideration the recommendations under section 10311(a)(4) of subtitle B, the Director shall make awards, on a competitive, merit-reviewed basis, to establish multidisciplinary Centers for Transformative Education Research and Translation (in this section referred to as ''Centers'') to support research and development on widespread and sustained implementation of STEM education innovations.

(b) ELIGIBILITY.—The entity seeking an award for a Center under this section must be an institution of higher education, a nonprofit organization, or a consortium of such institutions or organizations, which may include a STEM ecosystem .

(c) APPLICATION.—An eligible entity under subsection (b) seeking an award under this section shall submit an application to the Director at such time, in such manner, and containing such information as the Director may require. The application shall include, at a minimum, a description of how the proposed Center will be used to—

(1) establish partnerships among academic institutions, local or State educational agencies, and other relevant stakeholders in supporting programs and activities to facilitate the widespread and sustained implementation of promising, evidence-based STEM education practices, models, programs, curriculum, and technologies;

(2) support enhanced STEM education infrastructure, including cyberlearning technologies, to facilitate the widespread adoption of promising, evidence-based practices;

(3) support research and development on scaling practices, partnerships, and alternative models to current approaches, including approaches sensitive to the unique combinations of capabilities, resources, and needs of varying localities, educators, and learners;

(4) include a focus on the learning needs of under-resourced schools and learners in low-resource or underachieving local educational agencies in urban and rural communities and the development of high-quality curriculum that engages these learners in the knowledge and practices of STEM fields;

(5) include a focus on the learning needs and unique challenges facing students with disabilities;

(6) support research, development, or education on one or more of the key technology focus areas;

(7) support research and development on scaling practices and models to support and sustain highly-qualified STEM educators in urban and rural communities; and

(8) at the discretion of the Director, any other requirements recommended in the study commissioned under section 10311(a) of subtitle B.

(d) ADDITIONAL CONSIDERATIONS.—In making an award under this section, the Director may also consider the extent to which the proposed Center will—

(1) leverage existing collaborations, tools, and strategies supported by the Foundation, including NSF INCLUDES and the Convergence Accelerators;

(2) support research on and the development and scaling of innovative approaches to distance learning and education for various student populations;

(3) support education innovations that leverage new technologies or deepen understanding of the impact of technology on educational systems; and

(4) include a commitment from local or State education administrators to making the proposed reforms and activities a priority.

(e) PARTNERSHIP.—In carrying out the program under this section, the Director shall explore opportunities to partner with the Department of Education, including through jointly funding activities under this section.

(f) DURATION.—Each award made under this section shall be for a duration of no more than 5 years.

(g) ANNUAL MEETING.—The Director shall encourage and facilitate an annual meeting of the Centers, as appropriate, to foster collaboration among the Centers and to further disseminate the results of the Centers' supported activities.

(h) EXISTING PROGRAMS.—The Director may use existing NSF programs to establish and execute this section.

(i) REPORT.—Not later than 5 years after the date of enactment of this Act, the Director shall submit to Congress and make widely available to the public a report that includes—

(1) a description of the focus and proposed goals of each Center;

(2) an assessment, based on a common set of benchmarks and tools, of the Centers' success in helping to promote scalable solutions in PreK–12 STEM education; and

(3) any recommendations for administrative and legislative action that could optimize the effectiveness of the Centers established under this section.

SEC. 10396. AUTHORITIES.

In addition to existing authorities available to the Foundation, the Director may exercise the following authorities in carrying out the activities under this subtitle:

(1) AWARDS.—In carrying out this subtitle, the Director may provide awards in the form of grants, contracts, cooperative agreements, cash prizes, and other transactions.

(2) PROGRAM DIRECTORS.—

(A) DESIGNATION.—The Director may designate individuals to serve as program directors for the programs established within the Directorate pursuant to the responsibilities established under subparagraph (B). The Director shall ensure that program directors—

(i) have expertise in one or more of the challenges and key technology focus areas under section 10387; and

(ii) come from a variety of backgrounds, including industry, and from a variety of institutions of higher education.

(B) RESPONSIBILITIES.—A program director of a program of the Directorate, in consultation with the Assistant Director, shall be responsible for—

(i) establishing research and development goals for the program, including through the

convening of workshops, conferring with a broad range of stakeholders and outside experts, taking into account relevant expert reports, and publicizing the goals of the program to the public and private sectors;

(ii) surveying a wide range of institutions of higher education, nonprofit organizations, and private entities to identify emerging trends in the challenges and key technology focus areas under section 10387, and, as appropriate, soliciting proposals from such entities to conduct research in areas of particular promise that the private sector is the not likely to undertake independently.

(iii) facilitating research collaborations in the challenges and key technology focus areas under section 10387, including connecting academic researchers with potential end-users of technology, including industry, labor organizations, nonprofit organizations, civil society organizations, and other relevant organizations;

(iv) reviewing applications for projects submitted under section 10394 according to the Merit Review Criteria established by the Director for such projects and described in the Foundation's Proposal and Award Policies and Procedures Guide, and any such additional criteria as determined by the Director; and

(v) monitoring the progress of projects supported under the program and taking into account input from relevant experts and stakeholders, recommending program updates as needed.

(C) SELECTION CRITERIA.—Program directors may use diverse merit review models for selection of award recipients under section 10394, including internal review and different models that use peer review.

(D) TERMS.—Program directors of the Directorate may be appointed by the Director for a limited term, renewable at the discretion of the Director.

(3) EXPERTS IN SCIENCE AND ENGINEERING.—

(A) PROGRAM AUTHORIZED.—The Foundation may carry out a program of personnel management authority provided under subparagraph (B) in order to facilitate recruitment of eminent experts in science or engineering for research and development projects and to enhance the administration and management of the Foundation.

(B) PERSONNEL MANAGEMENT AUTHORITY.—Under the program under subparagraph (A), the Foundation may—

(i) without regard to any provision of title 5, United States Code, governing the appointment of employees in the competitive service, appoint individuals to a total of not more than 70 positions in the Foundation, of which not more than 5 such positions may be positions of administration or management of the Foundation;

(ii) prescribe the rates of basic pay for positions to which employees are appointed under clause (i)—

(I) in the case of employees appointed pursuant to clause (i) to any of 5 positions designated by the Foundation for purposes of this clause, at rates not in excess of a rate equal to 150 percent of the maximum rate of basic pay authorized for positions at level I of the Executive Schedule under section 5312 of title 5, United States Code; and

(II) in the case of any other employee appointed pursuant to clause (i), at rates not in excess of the maximum rate of basic pay authorized for senior-level positions under section 5376 of title 5, United States Code; and

(iii) pay any employee appointed under subparagraph (A), other than an employee appointed to a position designated as described in clause (ii)(I), payments in addition to basic pay within the limit applicable to the employee under subparagraph (D).

(C) LIMITATION ON TERM OF APPOINTMENT.—

(i) IN GENERAL.—Except as provided in clause (ii), the service of an employee under an appointment under subparagraph (B)(i) may not exceed 4 years.

(ii) EXTENSION.—The Director may, in the case of a particular employee under the program under subparagraph (A), extend the period to which service is limited under clause (i) by up to 2 years if the Director determines that such action is necessary to promote the efficiency of the Foundation.

(D) MAXIMUM AMOUNT OF ADDITIONAL PAYMENTS PAYABLE.—Notwithstanding any other provision of this subsection or section 5307 of title 5, United States Code, no additional payments may be paid to an employee under subparagraph (B)(iii) in any calendar year if, or to the extent that, the employee's total annual compensation in such calendar year will exceed the maximum amount of total annual compensation payable at the salary set in accordance with section 104 of title 3, United States Code.

(4) HIGHLY QUALIFIED EXPERTS IN NEEDED OCCUPATIONS.—

(A) IN GENERAL.—The Foundation may carry out a program using the authority provided in subparagraph (B) in order to attract highly qualified experts in needed occupations, as determined by the Foundation. Individuals hired by the Director through such authority may include individuals with expertise in business creativity, innovation management, design thinking, entrepreneurship, venture capital, and related fields.

(B) AUTHORITY.—Under the program, the Foundation may—

(i) appoint personnel from outside the civil service and uniformed services (as such terms are defined in section 2101 of title 5, United States Code) to positions in the Foundation without regard to any provision of title 5, United States Code, governing the appointment of employees in the competitive service;

(ii) prescribe the rates of basic pay for positions to which employees are appointed under clause (i) at rates not in excess of the maximum rate of basic pay authorized for senior-level positions under section 5376 of title 5, United States Code; and

(iii) pay any employee appointed under clause (i) payments in addition to basic pay within the limits applicable to the employee under subparagraph (D).

(C) LIMITATION ON TERM OF APPOINTMENT.—

(i) IN GENERAL.—Except as provided in clause (ii), the service of an employee under an appointment made pursuant to this subsection may not exceed 5 years.

(ii) EXTENSION.—The Foundation may, in the case of a particular employee, extend the period to which service is limited under clause (i) by up to 1 additional year if the Foundation determines that such action is necessary to promote the Foundation's national security missions.

(D) LIMITATIONS ON ADDITIONAL PAYMENTS.—

(i) TOTAL AMOUNT.—The total amount of the additional payments paid to an employee under this subsection for any 12-month period may not exceed the maximum amount of total compensation payable at the salary set in accordance with section 104 of title, United States Code.

(ii) ELIGIBILITY FOR PAYMENTS.—An employee appointed under this subsection is not eligible for any bonus, monetary award, or other monetary incentive for service, except for payments authorized under this subsection.

(E) LIMITATION ON NUMBER OF HIGHLY QUALIFIED EXPERTS.—The number of highly qualified experts appointed and retained by the Foundation under sub (B)(i) shall not exceed 70 at any time.

(F) SAVINGS PROVISIONS.—In the event that the Foundation terminates the program under this paragraph, in the case of an employee who, on the day before the termination of the program, is serving in a position pursuant to an appointment under this paragraph—

(i) the termination of the program does not terminate the employee's employment in that position before the expiration of the lesser of—

(I) the period for which the employee was appointed; or

(II) the period to which the employee's service is limited under subparagraph (C), including any extension made under this paragraph before the termination of the program; and

(ii) the rate of basic pay prescribed for the position under this paragraph may not be reduced as long as the employee continues to serve at an acceptable level of performance in the position without a break in service.

(5) ADDITIONAL HIRING AUTHORITY.—To the extent needed to carry out the duties under paragraph (1)(A), the Director is authorized to utilize hiring authorities under section 3372 of title 5, United States Code, to staff the Foundation with employees from other Federal agencies, State and local governments, Indian Tribes and Tribal organizations, institutions of higher education, and other organizations, as described in that section, in the same manner and subject to the same conditions, that apply to such individuals utilized to accomplish other missions of the Foundation.

(6) NATIONAL ACADEMY OF PUBLIC ADMINISTRATION.—

(A) STUDY.—Not later than 30 days after the date of enactment of this Act, the Director shall contract with the National Academy of Public Administration to conduct a study on the organizational and management structure of the Foundation, to—

(i) evaluate and make recommendations to efficiently and effectively implement the Directorate for Technology, Innovation, and Partnerships; and

(ii) evaluate and make recommendations to ensure coordination of the Directorate for Technology, Innovation, and Partnerships with other directorates and offices of the Foundation and other Federal agencies.

(B) REVIEW.—Upon completion of the study under subparagraph (A), the Foundation shall review the recommendations from the National Academy of Public Administration and provide a briefing to Congress on the plans of the Foundation to implement any such recommendations.

(7) PROVIDING AUTHORITY TO DISSEMINATE INFORMATION.—Section 11 of the National Science Foundation Act of 1950 (42 U.S.C. 1870) is amended—

(A) in subsection (j), by striking ''and'' after the semicolon;

(B) in subsection (k), by striking the period at the end and inserting ''; and''; and

(C) by adding at the end the following:

''(l) to provide for the widest practicable and appropriate dissemination of information within the United States concerning the Foundation's activities and the results of those activities.''.

SEC. 10397. COORDINATION OF ACTIVITIES.

(a) IN GENERAL.—In carrying out the activities of the Directorate, the Director shall coordinate and collaborate as appropriate with the Secretary of Energy, the Director of the National Institute of Standards and Technology, and the heads of other Federal research agencies, as appropriate, to further the goals of this subtitle.

(b) AVOID DUPLICATION.—The Director shall ensure, to the greatest extent practicable, that activities carried out by the Directorate are not duplicative of activities supported by other parts of the Foundation or other relevant Federal agencies. In carrying out the activities prescribed by this division, the Director shall coordinate with the interagency working group established under subtitle F of title VI and heads of other Federal research agencies to ensure these activities enhance and complement, but do not constitute unnecessary duplication of effort and to ensure the responsible stewardship of funds.

(c) EMERGING TECHNOLOGIES.—After completion of the studies regarding emerging technologies conducted by the Secretary of Commerce under title XV of division FF of the Consolidated Appropriations Act, 2021 (Public Law 116–260), the Director shall consider the results

of such studies in carrying out the activities of the Directorate.

SEC. 10398. ETHICAL, LEGAL, AND SOCIETAL CONSIDERATIONS.

The Director shall engage, as appropriate, experts in the social dimensions of science and technology and set up formal avenues for public input, as appropriate, to ensure that ethical, legal, and societal considerations are taken into account in the priorities and activities of the Directorate, including in the selection of the challenges and key technology focus areas under section 10387 and the award-making process, and throughout all stages of supported projects.

SEC. 10399. REPORTS AND ROADMAPS.

(a) ANNUAL REPORT.—The Director shall provide to the relevant authorizing and appropriations committees of Congress an annual report describing projects supported by the Directorate during the previous year.

(b) ROADMAP.—Not later than 1 year after the date of enactment of this Act, the Director shall provide to the relevant authorizing and appropriations committees of Congress a roadmap describing the strategic vision that the Directorate will use to guide investment decisions over the following 3 years.

(c) REPORTS.—Not later than 1 year after the date of enactment of this Act and every 3 years thereafter, the Director, in consultation with the heads of relevant Federal agencies, shall prepare and submit to Congress—

(1) a strategic vision for the next 5 years for the Directorate, including a description of how the Foundation will increase funding for research and education for populations underrepresented in STEM and geographic areas; and

(2) a description of the planned activities of the Directorate to secure federally funded science and technology pursuant to section 1746 of the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116–92; 42 U.S.C. 6601 note) and section 223 of William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (Public Law 116–283) and the requirements under subtitle D of this title and subtitle E of title VI .

(d) SELECTION CRITERIA REPORT.—Not later than 24 months after the establishment of the Directorate, the Director shall prepare and submit a report to Congress regarding the use of alternative methods for the selection of award recipients and the distribution of funding to recipients, as compared to the traditional peer review process.

SEC. 10399A. EVALUATION.

(a) IN GENERAL.—After the Directorate has been in operation for 6 years, the Director shall enter into an agreement with the National Academies to provide an evaluation of how well the Directorate is achieving the purposes identified in section 10382.

(b) INCLUSIONS.—The evaluation shall include—

(1) an assessment of the impact of Directorate activities on the Foundation's primary science mission;

(2) an assessment of the Directorate's impact on the challenges and key technology focus areas under section 10387;

(3) an assessment of efforts to ensure coordination between the Directorate and other Federal agencies, and with external entities;

(4) a description of lessons learned from operation of the Directorate; and

(5) recommended funding levels for the Directorate;

(c) AVAILABILITY.—On completion of the evaluation, the evaluation shall be made available to Congress and the public.

Subtitle H—Administrative Amendments

SEC. 10399D. SUPPORTING VETERANS IN STEM CAREERS.

Section 3(c) of the Supporting Veterans in STEM Careers Act (42 U.S.C. 1862t) is amended by striking ''annual'' and inserting ''biennial''.

SEC. 10399E. SUNSHINE ACT COMPLIANCE.

Section 15(a) of the National Science Foundation Authorization Act of 2002 (42 U.S.C. 1862n–5(a)) is amended—

(1) so that paragraph (3) reads as follows:

''(3) COMPLIANCE REVIEW.—The Inspector General of the Foundation shall conduct a review of the compliance by the Board with the requirements described in paragraph (2) as necessary based on a triennial risk assessment. Any review deemed necessary shall examine the proposed and actual content of closed meetings and determine whether the closure of the meetings was consistent with section 552b of title 5, United States Code.''; and

(2) by striking paragraphs (4) and (5) and inserting the following:

''(4) MATERIALS RELATING TO CLOSED PORTIONS OF MEETING.—To facilitate the risk assessment required under paragraph (3) of this subsection, and any subsequent review conducted by the Inspector General, the Office of the National Science Board shall maintain the General Counsel's certificate, the presiding officer's statement, and a transcript or recording of any closed meeting, for at least 3 years after such meeting.''.

SEC. 10399F. SCIENCE AND ENGINEERING INDICATORS REPORT SUBMISSION.

Section 4(j)(1) of the National Science Foundation Act of 1950 (42 U.S.C. 1863(j)(1)) is amended by striking ''January 15'' and inserting ''March 15''.

TITLE IV—BIOECONOMY RESEARCH AND DEVELOPMENT

SEC. 10401. DEFINITIONS.

In this title:

(1) INITIATIVE.—The term ''Initiative'' means the National Engineering Biology Research and Development Initiative established under section 10402.

(2) OMICS.—The term ''omics'' refers to the collective technologies used to explore the roles, relationships, and actions of the various types of molecules that make up the cells and systems of an organism and the systems level analysis of their functions.

SEC. 10402. NATIONAL ENGINEERING BIOLOGY RESEARCH AND DEVELOPMENT INITIATIVE.

(a) IN GENERAL.—The President, acting through the Office of Science and Technology Policy, shall implement a National Engineering Biology Research and Development Initiative to advance societal well-being, national security, sustainability, and economic productivity and competitiveness through the following:

(1) Advancing areas of research at the intersection of the biological, physical, chemical, data, and computational and information sciences and engineering to accelerate scientific understanding and technological innovation in engineering biology.

(2) Advancing areas of biomanufacturing research to optimize, standardize, scale, and deliver new products and solutions.

(3) Supporting social and behavioral sciences and economics research that advances the field of engineering biology and contributes to the development and public understanding of new products, processes, and technologies.

(4) Improving the understanding of engineering biology of the scientific and lay public and supporting greater evidence-based public discourse about its benefits and risks.

(5) Supporting research relating to the risks and benefits of engineering biology, including under subsection (d).

(6) Supporting the development of novel tools and technologies to accelerate scientific understanding and technological innovation in engineering biology.

(7) Expanding the number of researchers, educators, and students and a retooled workforce with engineering biology training, including from traditionally underrepresented and underserved populations.

(8) Accelerating the translation and commercialization of engineering biology and biomanufacturing research and development by the private sector.

(9) Improving the interagency planning and coordination of Federal Government activities related to engineering biology.

(b) INITIATIVE ACTIVITIES.—The activities of the Initiative shall include the following:

(1) Sustained support for engineering biology research and development through the following:

(A) Grants to fund the work of individual investigators and teams of investigators, including interdisciplinary teams.

(B) Projects funded under joint solicitations by a collaboration of not fewer than two agencies participating in the Initiative.

(C) Interdisciplinary research centers that are organized to investigate basic research questions, carry out technology development and demonstration activities, and increase understanding of how to scale up engineering biology processes, including biomanufacturing.

(2) Sustained support for databases and related tools, including the following:

(A) Support for the establishment, curation, and maintenance of curated genomics, epigenomics, and other relevant omics databases, including plant, animal, and microbial databases, that are available to researchers to carry out engineering biology research in a manner that does not compromise national security or the privacy or security of information within such databases.

(B) Development of standards for such databases, including for curation, interoperability, and protection of privacy and security.

(C) Support for the development of computational tools, including artificial intelligence tools, that can accelerate research and innovation using such databases.

(D) An inventory and assessment of all Federal government omics databases to identify opportunities to improve the utility of such databases, as appropriate and in a manner that does not compromise national security or the privacy and security of information within such databases, and inform investment in such databases as critical infrastructure for the engineering biology research enterprise.

(3) Sustained support for the development, optimization, and validation of novel tools and technologies to enable the dynamic study of molecular processes in situ, including through the following:

(A) Research conducted at Federal laboratories.

(B) Grants to fund the work of investigators at institutions of higher education and other nonprofit research institutions.

(C) Incentivized development of retooled industrial sites across the country that foster a pivot to modernized engineering biology initiatives.

(D) Awards under the Small Business Innovation Research Program and the Small Business Technology Transfer Program (as described in section 9 of the Small Business Act (15 U.S.C. 638)).

(4) Support for education and training of undergraduate and graduate students in engineering biology, biomanufacturing, bioprocess engineering, and computational science applied to engineering biology and in the related ethical, legal, environmental, safety, security, and other societal domains.

(5) Support for a national network of testbeds based on open standards, interfaces, and processes, including by repurposing existing facilities such as those specified in paragraph (3)(C), that would enable scale up of laboratory engineering biology research.

(6) Activities to develop robust mechanisms for documenting and quantifying the outputs and economic benefits of engineering biology.

(7) Activities to accelerate the translation and commercialization of new products, processes, and technologies by carrying out the following:

(A) Identifying precompetitive research opportunities.

(B) Facilitating public-private partnerships in engineering biology research and development, including to address barriers to scaling up innovations in engineering biology.

(C) Connecting researchers, graduate students, and postdoctoral fellows with entrepreneurship education and training opportunities.

(D) Supporting proof of concept activities and the formation of startup companies including through programs such as the Small Business Innovation Research Program and the Small Business Technology Transfer Program.

(c) EXPANDING PARTICIPATION.—The Initiative shall include, to the maximum extent practicable, outreach to primarily undergraduate and historically Black colleges and universities, Tribal Colleges or Universities, and minority-serving institutions about Initiative opportunities, and shall encourage the development of research collaborations between research-intensive universities and primarily undergraduate and historically Black colleges and universities, Tribal Colleges or Universities, and minority-serving institutions.

(d) ETHICAL, LEGAL, ENVIRONMENTAL, SAFETY, SECURITY, AND SOCIETAL ISSUES.—Initiative activities shall take into account ethical, legal, environmental, safety, security, and other appropriate societal issues by carrying out the following:

(1) Supporting research, including in the social sciences, and other activities addressing ethical, legal, environmental, and other appropriate societal issues related to engineering biology, including integrating research on such topics with the research and development in engineering biology, and encouraging the dissemination of the results of such research, including through interdisciplinary engineering biology research centers described in subsection (b)(1)(C).

(2) Supporting research and other activities related to the safety and security implications of engineering biology, including outreach to increase awareness among Federal researchers and federally-funded researchers at institutions of higher education about potential safety and security implications of engineering biology research, as appropriate.

(3) Ensuring that input from Federal and non-Federal experts on the ethical, legal, environmental, safety, security, and other appropriate societal issues related to engineering biology is integrated into the Initiative.

(4) Ensuring, through the agencies and departments that participate in the Initiative, that public input and outreach are integrated into the Initiative by the convening of regular and ongoing public discussions through mechanisms such as workshops, consensus conferences, and educational events, as appropriate.

(5) Complying with all applicable provisions of Federal law.

SEC. 10403. INITIATIVE COORDINATION.

(a) INTERAGENCY COMMITTEE.—The President, acting through the Office of Science and Technology Policy, shall designate an interagency committee to coordinate activities of the Initiative as appropriate, which shall be co-chaired by the Office of Science and Technology Policy. The Director of the Office of Science and Technology Policy shall select an additional co-chairperson from among the members of the interagency committee. The interagency committee shall oversee the planning, management, and coordination of the Initiative. The interagency committee shall carry out the following:

(1) Provide for interagency coordination of Federal engineering biology research, development, and other activities undertaken pursuant to the Initiative.

(2) Establish and periodically update goals and priorities for the Initiative.

(3) Develop, not later than 12 months after the date of the enactment of this Act, and update every five years thereafter, a strategic plan submitted to the Committee on Science, Space, and Technology, the Committee on Agriculture, and the Committee on Energy and Commerce of the House of Representatives and the Committee on Commerce, Science, and Transportation, the Committee on Agriculture, Nutrition, and Forestry, the Committee on Small Business and Entrepreneurship, and the Committee on Health, Education, Labor, and Pensions of the Senate that—

(A) guides the activities of the Initiative for purposes of meeting the goals and priorities established under (and updated pursuant to) paragraph (2); and

(B) describes—

(i) the Initiative's support for long-term funding for interdisciplinary engineering biology research and development;

(ii) the Initiative's support for education and public outreach activities;

(iii) the Initiative's support for research and other activities on ethical, legal, environmental, safety, security, and other appropriate societal issues related to engineering biology, including—

(I) an applied biorisk management research plan;

(II) recommendations for integrating security into biological data access and international reciprocity agreements;

(III) recommendations for manufacturing restructuring to support engineering biology research, development, and scaling-up initiatives; and

(IV) an evaluation of existing biosecurity governance policies, guidance, and directives for the purposes of creating an adaptable, evidence-based framework to respond to emerging biosecurity challenges created by advances in engineering biology;

(iv) how the Initiative will contribute to moving results out of the laboratory and into application for the benefit of society and United States competitiveness; and

(v) how the Initiative will measure and track the contributions of engineering biology to United States economic growth and other societal indicators.

(4) Develop a national genomic sequencing strategy to ensure engineering biology research fully leverages plant, animal, and microbe biodiversity, as appropriate and in a manner that does not compromise economic competitiveness, national security, or the privacy or security of human genetic information, to enhance long-term innovation and competitiveness in engineering biology in the United States.

(5) Develop a plan to utilize Federal programs, such as the Small Business Innovation Research Program and the Small Business Technology Transfer Program (as described in section 9 of the Small Business Act (15 U.S.C. 638)), in support of the activities described in section 10402(b)(3).

(6) In carrying out this section, take into consideration the recommendations of the advisory committee established under section 10404, the results of the workshop convened under section 10402, existing reports on related topics, and the views of academic, State, industry, and other appropriate groups.

(b) QUINQUENNIAL REPORT.—Beginning with fiscal year 2023 and every five years thereafter for ten years, the interagency committee shall prepare and submit to the Committee on Science, Space, and Technology, the Committee on Energy and Commerce, and the Committee on Agriculture of the House of Representatives and the Committee on Commerce, Science, and Transportation, the Committee on Health, Education, Labor, and Pensions, the Committee on Small Business and Entrepreneurship, and the Committee on Agriculture, Nutrition, and Forestry of the Senate a report that includes the following:

(1) A summarized agency budget in support of the Initiative for the current fiscal year, including a breakout of spending for each agency participating in the Program, and for the development and acquisition of any research facilities and instrumentation.

(2) An assessment of how Federal agencies are implementing the plan described in subsection (a)(3), including the following:

(A) A description of the amount and number of awards made under the Small Business Innovation Research Program and the Small Business Technology Transfer Program (as described in section 9 of the Small Business Act (15 U.S.C. 638)) in support of the Initiative.

(B) A description of the amount and number of projects funded under joint solicitations by a collaboration of not fewer than two agencies participating in the Initiative.

(C) A description of effects of newly-funded projects by the Initiative.

(c) INITIATIVE COORDINATION OFFICE.—

(1) IN GENERAL.—The President shall establish an Initiative Coordination Office, with a Director and full-time staff, which shall—

(A) provide technical and administrative support to the interagency committee and the advisory committee established under subsection (a) and section 10404;

(B) serve as the point of contact on Federal engineering biology activities for government organizations, academia, industry, professional societies, State governments, interested citizen groups, and others to exchange technical and programmatic information;

(C) oversee interagency coordination of the Initiative, including by encouraging and supporting joint agency solicitation and selection of applications for funding of activities under the Initiative, as appropriate;

(D) conduct public outreach, including dissemination of findings and recommendations of the advisory committee, as appropriate;

(E) serve as the coordinator of ethical, legal, environmental, safety, security, and other appropriate societal input; and

(F) promote access to, and early application of, the technologies, innovations, and expertise derived from Initiative activities to agency missions and systems across the Federal Government, and to United States industry, including startup companies.

(2) FUNDING.—The Director of the Office of Science and Technology Policy, in coordination with each participating Federal department and agency, as appropriate, shall develop and annually update an estimate of the funds necessary to carry out the activities of the Initiative Coordination Office and submit such estimate with an agreed summary of contributions from each agency to Congress as part of the President's annual budget request to Congress.

(3) TERMINATION.—The Initiative Coordination Office established under this subsection shall terminate on the date that is 10 years after the date of the enactment of this Act.

(d) RULE OF CONSTRUCTION.—Nothing in this section may be construed to alter the policies, processes, or practices of individual Federal agencies in effect on the day before the date of the enactment of this Act relating to the conduct of biomedical research and advanced development, including the solicitation and review of extramural research proposals.

SEC. 10404. ADVISORY COMMITTEE ON ENGINEERING BIOLOGY RESEARCH AND DEVELOPMENT.

(a) IN GENERAL.—The agency co-chair of the interagency committee established under section 10403 shall, in consultation with the Office of Science and Technology Policy, designate or establish an advisory committee on engineering biology research and development (in this section referred to as the ''advisory committee'') to be composed of not fewer than 12 members, including representatives of research and academic institutions, industry, and nongovernmental entities, who are qualified to provide advice on the Initiative.

(b) ASSESSMENT.—The advisory committee shall assess the following:

(1) The current state of United States competitiveness in engineering biology, including the scope and scale of United States investments in engineering biology research and development in the international context.

(2) Current market barriers to commercialization of engineering biology products, processes, and tools in the United States.

(3) Progress made in implementing the Initiative.

(4) The need to revise the Initiative.

(5) The balance of activities and funding across the Initiative.

(6) Whether the strategic plan developed or updated by the interagency committee established under section 10403 is helping to maintain United States leadership in engineering biology.

(7) Whether ethical, legal, environmental, safety, security, and other appropriate societal issues are adequately addressed by the Initiative.

(c) REPORTS.—Beginning not later than two years after the date of the enactment of this Act and not less frequently than once every five years thereafter, the advisory committee shall submit to the President, the Committee on Science, Space, and Technology, the Committee on Energy and Commerce, and the Committee on Agriculture of the House of Representatives, and the Committee on Commerce, Science, and Transportation, the Committee on Health, Education, Labor, and Pensions, and the Committee on Agriculture, Nutrition, and Forestry of the Senate, a report on the following:

(1) The findings of the advisory committee's assessment under subsection (b).

(2) The advisory committee's recommendations for ways to improve the Initiative.

(d) APPLICATION OF FEDERAL ADVISORY COMMITTEE ACT.—Section 14 of the Federal Advisory Committee Act (5 U.S.C. App.) shall not apply to the advisory committee.

(e) TERMINATION.—The advisory committee established under subsection (a) shall terminate on the date that is 10 years after the date of the enactment of this Act.

SEC. 10405. EXTERNAL REVIEW OF ETHICAL, LEGAL, ENVIRONMENTAL, SAFETY, SECURITY, AND SOCIETAL ISSUES.

(a) IN GENERAL.—Not later than six months after the date of enactment of this Act, the Director of the National Science Foundation shall seek to enter into an agreement with the National Academies of Sciences, Engineering, and Medicine to conduct a review, and make recommendations with respect to, the ethical, legal, environmental, safety, security, and other appropriate societal issues related to engineering biology research and development. The review shall include the following:

(1) An assessment of the current research on such issues.

(2) A description of the research needs relating to such issues.

(3) Recommendations on how the Initiative can address the research needs identified pursuant to paragraph (2).

(4) Recommendations on how researchers engaged in engineering biology can best incorporate considerations of such issues into the development of research proposals and the conduct of research.

(b) REPORT TO CONGRESS.—The agreement entered into under subsection (a) shall require the National Academies of Sciences, Engineering, and Medicine to, not later than two years after the date of the enactment of this Act—

(1) submit to the Committee on Science, Space, and Technology and the Committee on Agriculture of the House of Representatives and the Committee on Commerce, Science, and Transportation and the Committee on Agriculture, Nutrition, and Forestry of the Senate a report containing the findings and recommendations of the review conducted under subsection (a); and

(2) make a copy of such report available on a publicly accessible website.

SEC. 10406. AGENCY ACTIVITIES.

(a) NATIONAL SCIENCE FOUNDATION.—As part of the Initiative, the National Science Foundation shall carry out the following:

(1) Support research in engineering biology and biomanufacturing through individual grants, collaborative grants, and through interdisciplinary research centers.

(2) Support research on the environmental, legal, ethical, and social implications of engineering biology.

(3) Provide support for research instrumentation, equipment, and cyberinfrastructure for engineering biology disciplines, including support for research, development, optimization, and validation of novel technologies to enable the dynamic study of molecular processes in situ.

(4) Support curriculum development and research experiences for secondary, undergraduate, and graduate students in engineering biology and biomanufacturing, including through support for graduate fellowships and traineeships in engineering biology.

(5) Award grants, on a competitive basis, to enable institutions to support graduate students and postdoctoral fellows who perform some of their engineering biology research in an industry setting.

(b) DEPARTMENT OF COMMERCE.—

(1) NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.—As part of the Initiative, the Director of the National Institute of Standards and Technology shall carry out the following:

(A) Advance the development of standard reference materials and measurements, including to promote interoperability between new component technologies and processes for engineering biology and biomanufacturing discovery, innovation, and production processes.

(B) Establish new data tools, techniques, and processes necessary to advance engineering biology and biomanufacturing.

(C) Provide access to user facilities with advanced or unique equipment, services, materials, and other resources to industry, institutions of higher education, nonprofit organizations, and government agencies to perform research and testing.

(D) Provide technical expertise to inform the potential development of guidelines or safeguards for new products, processes, and systems of engineering biology.

(2) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.—As part of the initiative, the Administrator of the National Oceanic and Atmospheric Administration shall carry out the following:

(A) Conduct and support research in omics and associated bioinformatic sciences and develop tools and products to improve ecosystem stewardship, monitoring, management, assessments. and forecasts, consistent with the mission of the agency.

(B) Collaborate with other agencies to understand potential environmental threats and safeguards related to engineering biology.

(c) DEPARTMENT OF ENERGY.—As part of the Initiative, the Secretary of Energy shall carry out the following:

(1) Conduct and support research, development, demonstration, and commercial application activities in engineering biology, including in the areas of synthetic biology, advanced biofuel and bioproduct development, biobased materials, and environmental remediation.

(2) Support the development, optimization and validation of novel, scalable tools and technologies to enable the dynamic study of molecular processes in situ.

(3) Provide access to user facilities with advanced or unique equipment, services, materials, and other resources, including secure access to high-performance computing, as appropriate, to industry, institutions of higher education, nonprofit organizations, and government agencies to perform research and testing;.

(4) Strengthen collaboration between the Office of Science and the Energy Efficiency and Renewable Energy Office to help transfer fundamental research results to industry and accelerate commercial applications.

(d) DEPARTMENT OF DEFENSE.—As part of the Initiative, the Secretary of Defense shall carry out the following:

(1) Conduct and support research and development in engineering biology and associated data and information sciences.

(2) Support curriculum development and research experiences in engineering biology and associated data and information sciences across the military education system, including the service academies, professional military education, and military graduate education.

(3) Assess risks of potential national security and economic security threats relating to engineering biology.

(e) NATIONAL AERONAUTICS AND SPACE ADMINISTRATION.—As part of the Initiative, the National Aeronautics and Space Administration shall carry out the following:

(1) Conduct and support research in engineering biology, including in synthetic biology, and related to Earth and space sciences, aeronautics, space technology, and space exploration and experimentation, consistent with the priorities established in the National Academies' decadal surveys.

(2) Award grants, on a competitive basis, that enable institutions to support graduate students and postdoctoral fellows who perform some of their engineering biology research in an industry setting.

(f) DEPARTMENT OF AGRICULTURE.—As part of the Initiative, the Secretary of Agriculture shall support research and development in engineering biology through the Agricultural Research Service, the National Institute of Food and Agriculture programs and grants, and the Office of the Chief Scientist.

(g) ENVIRONMENTAL PROTECTION AGENCY.—As part of the Initiative, the Environmental Protection Agency shall support research on how products, processes, and systems of engineering biology will affect or can protect the environment.

(h) DEPARTMENT OF HEALTH AND HUMAN SERVICES.—As part of the Initiative, the Secretary of Health and Human Services, as appropriate and consistent with activities of the Department of Health and Human Services in effect on the day before the date of the enactment of this Act, shall carry out the following:

(1) Support research and development to advance the understanding and application of engineering biology for human health.

(2) Support relevant interdisciplinary research and coordination.

(3) Support activities necessary to facilitate oversight of relevant emerging biotechnologies.

SEC. 10407. RULE OF CONSTRUCTION.

Nothing in this title may be construed to require public disclosure of information that is exempt from mandatory disclosure under section 552 of title 5, United States Code.

TITLE V—BROADENING PARTICIPATION IN SCIENCE

Subtitle A—STEM Opportunities

SEC. 10501. FEDERAL RESEARCH AGENCY POLICIES FOR CAREGIVERS.

(a) OSTP GUIDANCE.—Not later than 12 months after the date of the enactment of this Act, the Director, in consultation with the heads of relevant agencies, shall provide guidance to each Federal research agency to establish policies that—

(1) apply to all—

(A) research awards granted by such agency; and

(B) principal investigators of such research and their trainees, including postdoctoral researchers and graduate students, who have caregiving responsibilities, including care for a newborn or newly adopted child and care for an immediate family member who has a disability or a serious health condition; and

(2) provide, to the extent feasible—

(A) flexibility in timing for the initiation of approved research awards granted by such agency;

(B) no-cost extensions of such research awards;

(C) award supplements, as appropriate, to research awards to sustain research activities conducted under such awards; and

(D) any other appropriate accommodations at the discretion of the director of each such agency.

(b) UNIFORMITY OF GUIDANCE.—In providing guidance under subsection (a), the Director shall encourage uniformity, to the extent practicable, and consistency in the policies established pursuant to such guidance across all Federal research agencies.

(c) ESTABLISHMENT OF POLICIES.—Consistent, to the extent practicable, with the guidance under subsection (a), Federal research agencies shall—

(1) maintain or develop and implement policies for individuals described in paragraph (1)(B) of such subsection; and

(2) broadly disseminate in easily accessible formats such policies to current and potential award recipients.

(d) DATA ON USAGE.—Federal research agencies shall consider—

(1) collecting data, including demographic data that can be disaggregated by sex, geographic location, and socioeconomic indicators, which may include employment status, occupation, educational attainment, parental education, and income, on the usage of the policies under subsection (c), at both institutions of higher education and Federal laboratories; and

(2) reporting such data on an annual basis to the Director in such form as required by the Director.

SEC. 10502. COLLECTION AND REPORTING OF DATA ON FEDERAL RESEARCH AWARDS.

(a) COLLECTION OF DATA.—

(1) IN GENERAL.—Each Federal research agency shall collect, as practicable, with respect to all applications for merit-reviewed research and development awards made by such agency, standardized record-level annual information on demographics, primary field, award type, institution type, review rating, budget request, funding outcome, and awarded budget.

(2) UNIFORMITY AND STANDARDIZATION.—The Director, in consultation with the heads of each Federal research agency, shall establish, and update as necessary, a policy to ensure uniformity and standardization of the data collection required under paragraph (1).

(3) RECORD-LEVEL DATA.—

(A) REQUIREMENT.—Beginning not later than two years after the issuance of the policy under paragraph (2) to Federal research agencies, and on an annual basis thereafter, each Federal research agency shall submit to the National Center for Science and Engineering Statistics record-level data collected under paragraph (1) in the form required by the Director of the National Science Foundation.

(B) PREVIOUS DATA.—As part of the first submission under subparagraph (A), each Federal research agency, to the extent practicable, shall also submit comparable record-level data, if it is available to the agency, for the five years preceding the date of such submission, or an analysis for why such data cannot be provided.

(b) REPORTING OF DATA.—The Director of the National Science Foundation shall publish statistical summary data, as practicable, collected under this section, disaggregated and cross-tabulated by race, ethnicity, sex, socioeconomic indicators, which may include employment status, occupation, educational attainment, parental education, and income, geographic location, and years since completion of doctoral degree, including in conjunction with the National Science Foundation's report required by section 37 of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885d; Public Law 96–516).

SEC. 10503. POLICIES FOR REVIEW OF FEDERAL RESEARCH AWARDS.

(a) ASSESSMENT OF POLICIES.—Federal research agencies shall regularly assess, and update as necessary, policies, and practices to remove or reduce cultural and institutional barriers limiting the recruitment, retention, and success of groups historically underrepresented in STEM research careers, including policies and practices relevant to the unbiased review of Federal research applications.

(b) CONSIDERATIONS AND ACTIVITIES.—In carrying out the requirements under subsection (a), Federal research agencies shall—

(1) review current levels of participation of groups historically underrepresented in STEM in peer-review panels and consider approaches for expanding their participation;

(2) analyze the data collected under section 10502, including funding rates of proposals from all groups, including those historically underrepresented in STEM;

(3) collect and disseminate best practices to remove or reduce cultural and institutional barriers limiting the recruitment, retention, and success of groups historically underrepresented in STEM research careers; and

(4) implement evidence-based policies and practices to achieve the goals of this section.

SEC. 10504. COLLECTION OF DATA ON DEMOGRAPHICS OF FACULTY.

(a) COLLECTION OF DATA.—

(1) IN GENERAL.—Not later than 5 years after the date of the enactment of this Act and at least every five years thereafter, the Director of the National Science Foundation shall carry out a survey to collect data from award recipients on the demographics of STEM faculty, by broad fields of STEM, at different types of institutions of higher education that receive Federal research funding.

(2) SURVEY CONSIDERATIONS.—To the extent practicable, the Director of the National Science Foundation shall survey, by sex, race, socioeconomic indicators, which may include employment status, occupation, educational attainment, parental education, and income, geographic location, ethnicity, citizenship status, and years since completion of doctoral degree—

(A) the number and percentage of faculty;

(B) the number and percentage of faculty at each rank;

(C) the number and percentage of faculty who are in nontenure-track positions, including teaching and research;

(D) the number and percentage of faculty who are reviewed for promotion, including tenure, and the percentage of that number who are promoted, including being awarded tenure;

(E) faculty years in rank;

(F) the number and percentage of faculty to leave tenure-track positions;

(G) the number and percentage of faculty hired, by rank; and

(H) the number and percentage of faculty in leadership positions.

(b) EXISTING SURVEYS.—The Director of the National Science Foundation, may, in modifying or expanding existing Federal surveys of higher education (as necessary)—

(1) take into account the considerations under subsection (a)(2) by collaborating with statistical centers at other Federal agencies; or

(2) make an award to an institution of higher education or nonprofit organization (or consortia thereof) to take such considerations into account.

(c) REPORTING DATA.—The Director of the National Science Foundation shall publish statistical summary data collected under this section, including as part of the National Science Foundation's report required by section 37 of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885d; Public Law 96–516).

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Director of the National Science Foundation $4,000,000 in each of fiscal years 2023 through 2025 to develop and carry out the initial survey required under subsection (a).

SEC. 10505. CULTURAL AND INSTITUTIONAL BARRIERS TO EXPANDING THE ACADEMIC AND FEDERAL STEM WORKFORCE.

(a) BEST PRACTICES.—

(1) DEVELOPMENT OF GUIDANCE.—Not later than 12 months after the date of enactment of this Act, the Director, in consultation with the interagency working group on inclusion in STEM and utilizing existing guidance already developed by Federal research agencies where applicable, shall broadly disseminate to entities that receive Federal research funding best practices for—

(A) conducting periodic climate surveys of STEM departments and divisions, with a particular focus on identifying and addressing any cultural or institutional barriers to the recruitment, retention, or advancement of groups historically underrepresented in STEM studies and careers; and

(B) providing educational opportunities, including workshops, for STEM professionals to learn about current research on effective practices for unbiased recruitment, evaluation, and promotion of undergraduate and graduate students and research personnel.

(2) ESTABLISHMENT OF POLICIES.—Consistent with the guidance developed under paragraph (1)—

(A) The Director of the National Science Foundation, in consultation with the heads of Federal research agencies, shall develop a policy that—

(i) applies to, at a minimum, doctoral degree granting institutions that receive Federal research funding; and

(ii) requires each such institution, not later than 3 years after the date of enactment of this Act, and to the extent practicable, to report to the Director of the National Science Foundation on activities and policies developed and implemented based on the guidance disseminated under paragraph (1); and

(B) each Federal research agency with a Federal laboratory shall maintain or develop and implement practices and policies for the purposes described in paragraph (1) for such laboratory and, not later than three years after the date of the enactment of this Act, each Federal laboratory shall report to the head of such agency on such practices and policies.

(b) REPORT TO CONGRESS.—Not later than four years after the date of the enactment of this Act, the Director of the National Science Foundation shall submit a report to Congress that includes a summary and analysis of the types and frequency of activities and policies developed and carried out under subsection (a) based on the reports submitted under paragraph (2) of such subsection.

SEC. 10506. EXISTING ACTIVITIES.

A Federal research agency may satisfy requirements under this subtitle through activities and programs in existence as of the date of the enactment of this Act.

SEC. 10507. REPORT TO CONGRESS.

Not later than four years after the date of the enactment of this Act, the Director shall submit to Congress a report that includes the following:

(1) A description and evaluation of the status and usage of policies implemented pursuant to section 10505 at all Federal research agencies, including any recommendations for revising or expanding such policies.

(2) With respect to efforts to remove or reduce cultural and institutional barriers limiting the recruitment, retention, and success of groups historically underrepresented in academic and government STEM research careers under section 10505—

(A) what steps all Federal research agencies have taken to implement policies and practices to further such efforts;

(B) a description of any significant updates to the policies for review of Federal research awards required under such section; and

(C) any evidence of the impact of such policies on the review or awarding of Federal research awards; and

(3) A description and evaluation of the status of institution of higher education and Federal laboratory policies and practices required under section 10505, including any recommendations for revising or expanding such policies.

SEC. 10508. MERIT REVIEW.

Nothing in this subtitle may be construed as altering any intellectual or broader impacts criteria at Federal research agencies for evaluating award applications.

SEC. 10509. DETERMINATION OF BUDGETARY EFFECTS.

The budgetary effects of this subtitle, for the purpose of complying with the Statutory Pay-As-You-Go Act of 2010, shall be determined by reference to the latest statement titled ''Budgetary Effects of PAYGO Legislation'' for this subtitle, submitted for printing in the Congressional Record by the Chairman of the House Budget Committee, provided that such statement has been submitted prior to the vote on passage.

SEC. 10510. DEFINITION.

In this subtitle, the term ''Director'' means the Director of the Office of Science and Technology Policy.

Subtitle B—Rural STEM Education Research

SEC. 10511. DEFINITION.

In this subtitle, the term ''Director'' means the Director of the National Science Foundation.

SEC. 10512. NATIONAL SCIENCE FOUNDATION RURAL STEM ACTIVITIES.

(a) PREPARING RURAL STEM EDUCATORS.—

(1) IN GENERAL.—The Director shall make awards on a merit- reviewed, competitive basis to institutions of higher education or nonprofit organizations (or a consortium thereof) for research and development activities to advance innovative approaches to support and sustain high-quality STEM teaching in rural schools.

(2) USE OF FUNDS.—

(A) IN GENERAL.—Awards made under this subsection shall be used for the research and development activities referred to in paragraph (1), which may include—

(i) engaging rural educators, principals, or other school leaders of students in prekindergarten through grade 12 in professional learning opportunities to enhance STEM knowledge, including computer science, and develop best practices;

(ii) supporting research on effective STEM teaching and school leadership practices in rural settings, including the use of rubrics and mastery- based grading practices to assess student performance when employing the transdisciplinary teaching approach for STEM disciplines;

(iii) designing and developing pre-service and in-service training resources to assist such rural educators, principals, and other school leaders in adopting transdisciplinary teaching practices across STEM courses;

(iv) coordinating with local partners to adapt STEM teaching practices to leverage local, natural, and community assets in order to support in-place learning in rural areas;

(v) providing hands-on training and research opportunities for rural educators described in clause (i) at Federal laboratories or institutions of higher education, or in industry;

(vi) developing training and best practices for educators who teach multiple grade levels within a STEM discipline;

(vii) designing and implementing professional development courses and experiences, including mentoring, for rural educators, principals, and other school leaders described in clause (i) that combine face-to-face and online experiences; and

(viii) any other activity the Director determines will accomplish the goals of this paragraph.

(B) RURAL STEM COLLABORATIVE.—The Director shall establish a pilot program of regional cohorts in rural areas that will provide peer support, mentoring, and hands-on research experiences for rural STEM educators, principals, and other school leaders of students in prekindergarten through grade 12, in order to build an ecosystem of cooperation among educators, principals, other school leaders, researchers, academia, and local industry.

(b) BROADENING PARTICIPATION OF RURAL STUDENTS IN STEM.—

(1) IN GENERAL.—The Director shall make awards on a merit- reviewed, competitive basis to institutions of higher education or nonprofit organizations (or a consortium thereof) for—

(A) research and development of programming to identify the barriers rural students face in accessing high-quality STEM education; and

(B) development of innovative solutions to improve the participation and advancement of rural students in prekindergarten through grade 12 in STEM studies.

(2) USE OF FUNDS.—

(A) IN GENERAL.—Awards made under this subsection shall be used for the research and development activities referred to in paragraph (1), which may include—

(i) developing partnerships with community colleges to offer advanced STEM course work, including computer science, to rural high school students;

(ii) supporting research on effective STEM practices in rural settings;

(iii) implementing a school-wide STEM approach, including preparation and support for principals and other school leaders;

(iv) improving the Foundation's Advanced Technology Education program's coordination and engagement with rural communities;

(v) collaborating with existing community partners and networks, such as the Cooperative Extension System services and extramural research programs of the Department of Agriculture and youth serving organizations like 4-H, after school STEM programs, and summer STEM programs, to leverage community resources and develop place-based programming;

(vi) connecting rural school districts and institutions of higher education, to improve precollegiate STEM education and engagement;

(vii) supporting partnerships that offer hands-on inquiry-based science activities, including coding, and access to lab resources for students studying STEM in prekindergarten through grade 12 in a rural area;

(viii) evaluating the role of broadband connectivity and its associated impact on the STEM and technology literacy of rural students;

(ix) building capacity to support extracurricular STEM programs in rural schools, including mentor-led engagement programs, STEM programs held during non-school hours, STEM networks, makerspaces, coding activities, and competitions;

(x) creating partnerships with local industries and local educational agencies to tailor STEM curricula and educational experiences to the needs of a particular local or regional economy; and

(xi) any other activity the Director determines will accomplish the goals of this paragraph.

(c) APPLICATION.—An applicant seeking an award under subsection (a) or (b) shall submit an application at such time, in such manner, and containing such information as the Director may require. The application may include the following:

(1) A description of the target population to be served by the research activity or activities for which such award is sought.

(2) A description of the process for recruitment and selection of students, educators, principals, and other school leaders, or schools from rural areas to participate in such activity or activities.

(3) A description of how such activity or activities may inform efforts to promote the engagement and achievement of rural students in prekindergarten through grade 12 in STEM studies.

(4) In the case of a proposal consisting of a partnership or partnerships with one or more rural schools and one or more researchers, a plan for establishing a sustained partnership that is jointly developed and managed, draws from the capacities of each partner, and is mutually beneficial.

(d) PARTNERSHIPS.—In making awards under subsection (a) or (b), the Director shall—

(1) encourage applicants which, for the purpose of the activity or activities funded through the award, include or partner with a nonprofit organization or an institution of higher education (or a consortium thereof) that has extensive experience and expertise in increasing the participation of rural students in prekindergarten through grade 12 in STEM;

(2) encourage applicants which, for the purpose of the activity or activities funded through the award, include or partner with a consortium of rural schools or rural school districts; and

(3) encourage applications which, for the purpose of the activity or activities funded through the award, include commitments from school principals, other school leaders, and administrators to making reforms and activities proposed by the applicant a priority.

(e) EVALUATIONS.—All proposals for awards under subsections (a) and (b) shall include an evaluation plan that includes the use of outcome-oriented measures to assess the impact and efficacy of the award. Each recipient of an award under this subsection shall include results from these evaluative activities in annual and final projects.

(f) ACCOUNTABILITY AND DISSEMINATION.—

(1) EVALUATION REQUIRED.—The Director shall evaluate the portfolio of awards made under subsections (a) and (b). Such evaluation shall—

(A) use a common set of benchmarks and tools to assess the results of research conducted under such awards and identify best practices; and

(B) to the extent practicable, integrate the findings of research resulting from the activity or activities funded through such awards with the findings of other research on rural students' pursuit of degrees or careers in STEM.

(2) REPORT ON EVALUATIONS.—Not later than 180 days after the completion of the evaluation under paragraph (1), the Director shall submit to Congress and make widely available to the public a report that includes—

(A) the results of the evaluation; and

(B) any recommendations for administrative and legislative action that could optimize the effectiveness of the awards made under this subsection.

(g) REPORT BY COMMITTEE ON EQUAL OPPORTUNITIES IN SCIENCE AND ENGINEERING.—As part of the first report required by section 36(e) of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885c(e)) transmitted to Congress after the date of enactment of this division, the Committee on Equal Opportunities in Science and Engineering, in consultation with the Chief Diversity Officer of the National Science Foundation, shall include—

(1) a description of past and present policies and activities of the Foundation to encourage full participation of students in rural communities in science, mathematics, engineering, and computer science fields;

(2) an assessment of trends in participation of rural students in prekindergarten through grade 12 in Foundation activities; and

(3) an assessment of the policies and activities of the Foundation, along with proposals for new strategies or the broadening of existing successful strategies towards facilitating the goal of increasing participation of rural students in prekindergarten through grade 12 in Foundation activities.

(h) COORDINATION.—In carrying out this subsection, the Director shall, for purposes of enhancing program effectiveness and avoiding duplication of activities, consult, cooperate, and coordinate with the programs and policies of other relevant Federal agencies.

(i) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Director—

(1) $8,000,000 to carry out the activities under subsection (a) for each of fiscal years 2023 through 2027; and

(2) $12,000,000 to carry out the activities under subsection (b) for each of fiscal years 2023 through 2027.

SEC. 10513. OPPORTUNITIES FOR ONLINE EDUCATION.

(a) IN GENERAL.—The Director shall make competitive awards to institutions of higher education or nonprofit organizations (or a consortium thereof, which may include a private sector partner) to conduct research on online STEM education courses for rural communities.

(b) RESEARCH AREAS.—The research areas eligible for funding under this subsection shall include—

(1) evaluating the learning and achievement of rural students in prekindergarten through grade 12 in STEM subjects;

(2) understanding how computer-based and online professional development courses and mentor experiences can be integrated to meet the needs of educators, principals, and other school leaders of rural students in prekindergarten through grade 12;

(3) combining computer-based and online STEM education and training with mentoring and other applied learning arrangements;

(4) leveraging online programs to supplement STEM studies for rural students that need physical and academic accommodation; and

(5) any other activity the Director determines will accomplish the goals of this subsection.

(c) EVALUATIONS.—All proposals for awards under this section shall include an evaluation plan that includes the use of outcome-oriented measures to assess the impact and efficacy of the award. Each recipient of an award under this subsection shall include results from these evaluative activities in annual and final projects.

(d) ACCOUNTABILITY AND DISSEMINATION.—

(1) EVALUATION REQUIRED.—The Director shall evaluate the portfolio of awards made under this subsection. Such evaluation shall—

(A) use a common set of benchmarks and tools to assess the results of research conducted under such awards and identify best practices; and

(B) to the extent practicable, integrate findings from activities carried out pursuant to research conducted under this section, with respect to the pursuit of careers and degrees in STEM, with those activities carried out pursuant to other research on serving rural students and communities.

(2) REPORT ON EVALUATIONS.—Not later than 180 days after the completion of the evaluation under paragraph (1), the Director shall submit to Congress and make widely available to the public a report that includes—

(A) the results of the evaluation; and

(B) any recommendations for administrative and legislative action that could optimize the effectiveness of the awards made under this section.

(e) COORDINATION.—In carrying out this section, the Director shall, for purposes of enhancing program effectiveness and avoiding duplication of activities, consult, cooperate, and coordinate with the programs and policies of other relevant Federal agencies.

SEC. 10514. NATIONAL ACADEMIES EVALUATION.

(a) STUDY.—Not later than 12 months after the date of enactment of this division, the Director shall enter into an agreement with the National Academies under which the National Academies agree to conduct an evaluation and assessment that—

(1) evaluates the quality and quantity of current Federal programming and research directed at examining STEM education for students in prekindergarten through grade 12 and workforce development in rural areas;

(2) in coordination with the Federal Communications Commission, assesses the impact that the scarcity of broadband connectivity in rural communities, and the affordability of broadband connectivity, have on STEM and technical literacy for students in prekindergarten through grade 12 in rural areas;

(3) assesses the core research and data needed to understand the challenges rural areas are facing in providing quality STEM education and workforce development;

(4) makes recommendations for action at the Federal, State, and local levels for improving STEM education, including online STEM education, for students in prekindergarten through grade 12 and workforce development in rural areas; and

(5) makes recommendations to inform the implementation of programs in sections 10512 and 10513 (_____-LOG262) and (_____-LOG263).

(b) REPORT TO DIRECTOR.—The agreement entered into under subsection (a) shall require the National Academies, not later than 24 months after the date of enactment of this division, to submit to the Director a report on the study conducted under such paragraph, including the National Academies' findings and recommendations.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Director to carry out this section $1,000,000 for fiscal year 2023.

SEC. 10515. GAO REVIEW.

Not later than 3 years after the date of enactment of this division, the Comptroller General of the United States shall conduct a study on the engagement of rural populations in Federal STEM education programs and submit to Congress a report that includes—

(1) an assessment of how Federal STEM education programs are serving rural populations;

(2) a description of initiatives carried out by Federal agencies that are targeted at supporting STEM education in rural areas;

(3) an assessment of what is known about the impact and effectiveness of Federal investments in STEM education programs that are targeted to rural areas; and

(4) an assessment of challenges that State and Federal STEM education programs face in reaching rural population centers.

SEC. 10516. NIST ENGAGEMENT WITH RURAL COMMUNITIES.

(a) PRIZE COMPETITION.—Pursuant to section 24 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3719), the Secretary of Commerce shall carry out a program to award prizes competitively to stimulate research and development of creative technologies to support the deployment of affordable and reliable broadband connectivity in rural communities, including unserved rural communities.

(b) PLAN FOR DEPLOYMENT IN RURAL COMMUNITIES.—Each proposal submitted pursuant to subsection (a) shall include a proposed plan for deployment of the technology that is the subject of such proposal.

(c) PRIZE AMOUNT.—In carrying out the program under subsection (a), the Secretary may award not more than a total of $5,000,000 to one or more winners of the prize competition.

(d) REPORT.—Not later than 60 days after the date on which a prize is awarded under the prize competition, the Secretary shall submit to the relevant committees of Congress a report that describes the winning proposal of the prize competition.

(e) CONSULTATION.—In carrying out the program under this section, the Secretary shall consult with the Federal Communications Commission and the heads of relevant departments and agencies of the Federal Government.

Subtitle C—MSI STEM Achievement

SEC. 10521. GAO REVIEW.

Not later than three years after the date of the enactment of this Act, the Comptroller General of the United States shall report to Congress—

(1) an inventory of competitive funding programs and initiatives carried out by Federal research agencies that are targeted to HBCUs, TCUs, and MSIs or partnerships with HBCUs, TCUs, and MSIs;

(2) an assessment of Federal research agency outreach activities to increase the participation and competitiveness of HBCUs, TCUs, and MSIs in the funding programs and initiatives identified in paragraph (1); and

(3) recommendations of the Comptroller General to increase the participation of and the rate of success of HBCUs, TCUs, and MSIs in competitive funding programs offered by Federal research agencies.

SEC. 10522. AGENCY RESPONSIBILITIES.

(a) IN GENERAL.—In consultation with outside stakeholders and the heads of Federal research agencies and the Interagency Working Group on Inclusion in STEM, the Director of the Office of Science and Technology Policy shall develop a uniform set of policy guidelines for Federal research agencies to carry out a sustained program of outreach activities to increase clarity, transparency, and accountability for Federal research agency investments in STEM education and research activities at HBCUs, TCUs, and MSIs, including such institutions in rural areas.

(b) OUTREACH ACTIVITIES.—In developing policy guidelines under subsection (a) the Director of the Office of Science and Technology Policy shall include guidelines that require each Federal research agency—

(1) to designate a liaison for HBCUs, TCUs, and MSIs responsible for—

(A) enhancing direct communication with HBCUs, TCUs, and MSIs to increase the Federal research agency's understanding of the capacity and needs of such institutions and to raise awareness of available Federal funding opportunities at such institutions;

(B) coordinating programs, activities, and initiatives while accounting for the capacity and needs of HBCUs, TCUs, and MSIs;

(C) tracking Federal research agency investments in and engagement with HBCUs, TCUs, and MSIs; and

(D) reporting progress toward increasing participation of HBCUs, TCUs, and MSIs in award programs;

(2) to the extent practicable, to produce an annual summary of funding opportunities and proposal deadlines targeted at HBCUs, TCUs, and MSIs, including for grants, contracts, subcontracts, and cooperative agreements;

(3) to the extent practicable, identifying in annual budget requests potential areas for collaboration with HBCUs, TCUs, and MSIs in the relevant fiscal year, including relating to potential meetings and workshops;

(4) to investigate proposal structures that support broader participation by emerging research institutions, including HBCUs, TCUs, and MSIs;

(5) to conduct on-site reviews of research facilities at HBCUs, TCUs, and MSIs, as practicable, and make recommendations regarding strategies for becoming more competitive in research;

(6) to hold geographically accessible or virtual workshops on research priorities of the Federal research agency and on how to write competitive award proposals and how to bolster award management capacity for the entire award lifecycle, from application to completion;

(7) to ensure opportunities for HBCUs, TCUs, and MSIs to directly communicate with Federal research agency officials responsible for managing competitive award programs in order to receive feedback on research ideas and proposals, including guidance on the Federal research agency's merit review process; and

(8) to foster mutually beneficial public-private collaboration among Federal research agencies, industry, Federal laboratories, academia, and nonprofit organizations to—

(A) identify alternative sources of funding for STEM education and research at HBCUs, TCUs, and MSIs;

(B) provide access to high-quality, relevant research experiences for students and faculty of HBCUs, TCUs, and MSIs;

(C) expand the professional networks of students and faculty of HBCUs, TCUs, and MSIs;

(D) broaden STEM educational opportunities for students and faculty of HBCUs, TCUs, and MSIs; and

(E) support the transition of students of HBCUs, TCUs, and MSIs into the STEM workforce;

(c) STRATEGIC PLAN.—

(1) IN GENERAL.—Not later than one year after the date of the enactment of this Act, the Director of the Office of Science and Technology Policy, in collaboration with the head of each Federal research agency, shall submit to Congress a report containing a strategic plan which reflects the plans of each Federal research agency to increase the capacity of HBCUs, TCUs, and MSIs to compete effectively for grants, contracts, or cooperative agreements and to encourage HBCUs, TCUs, and MSIs to participate in Federal programs.

(2) CONSIDERATIONS.—In developing a strategic plan under paragraph (1), the Director and the head of each Federal research agency shall consider the following:

(A) Issuing new or expanding existing funding opportunities targeted to HBCUs, TCUs, and MSIs.

(B) Modifying existing research and development program solicitations to incentivize effective partnerships with HBCUs, TCUs, and MSIs.

(C) Offering planning grants for HBCUs, TCUs, and MSIs to develop or equip grant offices with the requisite depth of knowledge to submit competitive grant proposals and manage awarded grants.

(D) Offering additional training programs, including individualized and timely guidance to grant officers, faculty, and postdoctoral researchers at HBCUs, TCUs, and MSIs to ensure their understanding of the requirements for an effective grant proposal.

(E) Other approaches for making current competitive funding models more accessible for underresourced HBCUs, TCUs, and MSIs.

(d) REPORT ON POLICY GUIDELINES.—Not later than two years after the date of the enactment of this Act and every five years thereafter, the Director of the Office of Science and Technology Policy shall report to Congress on the implementation by Federal research agencies of the policy guidelines developed under this section.

(e) REPORT ON COORDINATION OF FEDERAL STEM EDUCATION.—Subsection (d) of section 101(d) of the America COMPETES Reauthorization Act of 2010 (42 U.S.C. 6621) is amended—

(1) in paragraph (7) by striking ''and'';

(2) in paragraph (8) by striking the period at the end;

(3) by adding at the end the following:

''(9) an account of Federal research agency investments in HBCUs, TCUs, and MSIs, including, to the degree practicable, data on the level of participation of HBCUs, TCUs, and MSIs as prime recipients, contractors, subrecipients, or subcontractors of an award, or reasonable estimates thereof; and

''(10) a description of material changes to the implementation of section 10522 of the Research and Development, Competition, and Innovation Act.''.

SEC. 10523. RESEARCH AT THE NATIONAL SCIENCE FOUNDATION.

(a) IN GENERAL.—The Director shall make awards, on a competitive basis, to institutions of higher education or nonprofit organizations (or consortia thereof) to—

(1) conduct research described in subsection (b) with respect to HBCUs, TCUs, and MSIs; and

(2) identify and broadly disseminate effective models for programs and practices at HBCUs, TCUs, and MSIs that promote the education and workforce preparation of minority students pursuing STEM studies and careers in which such students are underrepresented.

(b) RESEARCH.—Research described in this subsection is research on the contribution of HBCUs, TCUs, and MSIs to the education and training of underrepresented minority students in STEM fields and to the meeting of national STEM workforce needs, including relating to the following:

(1) The diversity with respect to local context, cultural differences, and institutional structure among HBCUs, TCUs, and MSIs and any associated impact on education and research endeavors.

(2) Effective practices at HBCUs, TCUs, and MSIs and associated outcomes on student recruitment, retention, and advancement in STEM fields, including the ability for students to compete for fellowships, employment, and advancement in the workforce.

(3) Contributions made by HBCUs, TCUs, and MSIs to local, regional, and national workforces.

(4) The challenges and opportunities for HBCUs, TCUs, and MSIs in attaining the resources needed for integrating effective practices in STEM education, including providing research experiences for underrepresented minority students.

(5) The access of students at HBCUs, TCUs, and MSIs to STEM infrastructure and any associated outcomes for STEM competency.

(6) Models of STEM curriculum, learning, and teaching successful at HBCUs, TCUs, and MSIs for increasing participation, retention, and success of underrepresented minority students.

(7) Successful or promising partnerships between HBCUs, TCUs, and MSIs and other institutions of higher education, private sector and nonprofit organizations, Federal laboratories, and international research institutions.

(c) RESEARCH EXPERIENCES.—Awards under this section may fund the development or expansion of opportunities for the exchange of students and faculty to conduct research, facilitate professional development, and provide mentorship, including through partnerships with institutions of higher education that are not HBCUs, TCUs, or MSIs, private sector and nonprofit organizations, Federal laboratories, and international research institutions.

SEC. 10524. CAPACITY-BUILDING PROGRAM FOR DEVELOPING UNIVERSITIES.

(a) AWARDS.—

(1) IN GENERAL.—The Director shall make awards, on a competitive basis, to eligible institutions described in subsection (b) to support the mission of the Foundation and to build institutional research capacity at eligible institutions.

(2) ADMINISTRATION.—The Director may administer separate competitions for each category of eligible institution described in subparagraphs (A) through (C) of subsection (b)(1) in order to ensure fair competition for institutions with significantly different research capacities.

(b) ELIGIBLE INSTITUTIONS.—To be eligible to receive an award under this subsection, an entity—

(1) shall be—

(A) a historically Black college or university;

(B) a Tribal College or University;

(C) a minority-serving institution;

(D) an institution of higher education with an established STEM capacity-building program focused on Native Hawaiians and Alaska Natives; or

(E) consortia thereof;

(2) shall—

(A) have not more than $50,000,000 in annual federally financed research and development expenditures for science and engineering as reported through the National Science Foundation Higher Education Research and Development Survey; or

(B) not be an institution classified as having very high research activity by the Carnegie Classification of Institutions of Higher Education.

(c) PARTNERSHIPS.—In making awards under this section, the Director shall—

(1) encourage entities that are consortia of eligible institutions to submit proposals and require such proposals to include a plan for establishing a sustained partnership that is jointly developed and managed, draws from the capacities of each institution, and is mutually beneficial;

(2) encourage proposals submitted in partnership with the private sector, nonprofit organizations, Federal laboratories, and international research institutions, as appropriate;

(3) require proposals described in paragraphs (1) and (2) to include a plan to strengthen the administrative and research capacity of the partnering HBCUs, TCUs, or MSIs to lead future proposals.

(d) VERY HIGH RESEARCH ACTIVITY STATUS HISTORICALLY BLACK COLLEGES AND UNIVERSITIES PROGRAM.—Awards under this section may be used to enable HBCUs which have high research activity status to achieve very high research activity status, as classified under the Carnegie Classification of Institutions of Higher Education, by enabling—

(1) faculty professional development;

(2) stipends for graduate and undergraduate students, and postdoctoral scholars;

(3) acquisition of laboratory equipment and instrumentation; and

(4) other activities as necessary to build research capacity.

(e) PROPOSALS.—To receive an award under this subsection, an eligible institution shall submit an application to the Director at such time, in such manner, and containing such information as the Director may require, including—

(1) a plan that describes how the eligible institution will establish or expand research office capacity and how such award would be used to—

(A) conduct an assessment of capacity-building and research infrastructure needs of an eligible institution;

(B) enhance institutional resources to provide administrative research development support to faculty at an eligible institution;

(C) bolster the institutional research competitiveness of an eligible institution to support awards made by the Foundation;

(D) support the acquisition of instrumentation necessary to build research capacity at an eligible institution in research areas directly associated with the Foundation;

(E) increase capability of an eligible institution to move technology into the marketplace;

(F) increase engagement with industry to execute research through the SBIR and STTR programs (as such terms are defined in section 9(e) of the Small Business Act (15 U.S.C. 638(e)) and direct contracts at an eligible institution;

(G) enhance STEM curriculum and research training opportunities at the undergraduate, graduate, and postdoctoral levels at an eligible institution;

(H) further faculty development initiatives and strengthen institutional research training infrastructure, capacity, and competitiveness of an eligible institution;

(I) address plans and prospects for long-term sustainability of institutional enhancements at an eligible institution resulting from the award including, if applicable, how the award may be leveraged by an eligible institution to build a broader base of support; and

(J) develop and implement mechanisms for institutions of higher education to partner with HBCUs, TCUs, and MSIs on STEM education, including the facilitation of student exchanges, course and resource sharing, collaboration, and matriculation of students to either institution's graduate programs, mentoring programs for students and junior faculty, joint research projects, and student access to graduate education; and

(2) as relevant, a plan, which shall be updated every three years, that describes the institution's strategy to achieve very high research activity status, including making investments with institutional and non-Federal funds, to achieve that status within a decade of the grant award, to the extent practicable.

(f) MSI CENTERS OF INNOVATION.—Awards under this section may fund the establishment of not more than five MSI Centers of Innovation to leverage successes of HBCUs, TCUs, and MSIs in STEM education and research training of underrepresented minority students as models for other institutions, including both HBCUs, TCUs, and MSIs and institutions of higher education that are not HBCUs, TCUs, or MSIs. Such centers will be located on campuses of selected HBCUs, TCUs, or MSIs, and serve as incubators to allow institutions of higher education to experiment, pilot, evaluate, and scale up promising practices.

(g) AWARDS.—Awards made under this subsection shall be for periods of three years and may be extended for periods of not more than five years.

(h) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Director $200,000,000 for fiscal year 2023 and $250,000,000 for each of fiscal years 2024 through 2027 to carry out the activities in this section and section 10523.

(i) REPORT ON IMPROVING THE RESEARCH CAPACITY AT HIGH RESEARCH ACTIVITY HISTORICALLY BLACK COLLEGES AND UNIVERSITIES.—

(1) IN GENERAL.—Not later than one year after the date of the enactment of this Act, the National Science and Technology Council shall prepare and submit a report that—

(A) identifies challenges and barriers to Federal research and development awards for high research activity status HBCUs; and

(B) identifies recommendations for Federal research agencies to sustainably boost the research capacity of high research activity status HBCUs through awards-making authorities.

(2) REPORT SUBMISSION.—The National Science and Technology Council shall transmit the report required under paragraph (1) to the Director, the Administrator of the National Aeronautics and Space Administration, the Secretary of Agriculture, the Secretary of Commerce, the Secretary of Defense, the Secretary of Energy, the Secretary of Health and Human Services, and the heads of other such agencies as determined relevant by the National Science and Technology Council.

(3) INFORMATION FROM FEDERAL AGENCIES.—The National Science and Technology Council may secure directly from a Federal department or agency such information as the National Science and Technology Council considers necessary to prepare the report required under paragraph (1). Upon a request from the National Science and Technology Council, the head of a Federal department or agency shall furnish such information as is requested to the National Science and Technology Council.

SEC. 10525. TRIBAL COLLEGES AND UNIVERSITIES PROGRAM.

(a) AWARDS TO BROADEN TRIBAL COLLEGE AND UNIVERSITY STUDENT PARTICIPATION IN COMPUTER SCIENCE.—Section 525 of the America COMPETES Reauthorization Act of 2010 (42 U.S.C. 1862p–13) is amended by adding at the end the following:

''(d) AWARDS TO BROADEN TRIBAL COLLEGE AND UNIVERSITY STUDENT PARTICIPATION IN COMPUTER SCIENCE.—

''(1) IN GENERAL.—The Director, as part of the program authorized under this section, shall make awards on a competitive, merit-reviewed basis to eligible entities to increase the participation of Tribal populations in computer science and computational thinking education programs to enable students to develop skills and competencies in coding, problem-solving, critical thinking, creativity and collaboration.

''(2) PURPOSE.—Awards made under this subsection shall support—

''(A) research and development needed to bring computer science and computational thinking courses and degrees to Tribal Colleges or Universities;

''(B) research and development of instructional materials needed to integrate computer science and computational thinking into programs that are culturally relevant to students attending Tribal Colleges or Universities;

''(C) research, development and evaluation of distance education for computer science and computational thinking courses and degree programs for students attending Tribal Colleges and Universities; and

''(D) other activities consistent with the activities described in paragraphs (1) through (4) of subsection (b), as determined by the Director.

''(3) PARTNERSHIPS.—A Tribal College or University seeking an award under this subsection, or consortia thereof, may partner with an institution of higher education or nonprofit organization with demonstrated expertise in academic program development.

''(4) COORDINATION.—In carrying out this subsection, the Director shall consult and cooperate with the programs and policies of other relevant Federal agencies to avoid duplication with and enhance the effectiveness of the program under this subsection.

''(5) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Director $2,000,000 in each of fiscal years 2023 through 2027 to carry out this subsection.''.

(b) EVALUATION.—

(1) IN GENERAL.—Not later than two years after the date of the enactment of this Act, the Director shall evaluate the award program authorized under section 525 of the America COMPETES Reauthorization Act of 2010 (42 U.S.C. 1862p–13), as amended by subsection (a).

(2) REQUIREMENTS.—In conducting the evaluation under paragraph (1), the Director shall, as practicable—

(A) use a common set of benchmarks and assessment tools to identify best practices and materials developed or demonstrated by the research conducted pursuant to award programs under section 525 of the America COMPETES Reauthorization Act of 2010 (42 U.S.C. 1862p–13), as amended by subsection (a);

(B) include an assessment of the effectiveness of such award programs in expanding access to high quality STEM education, research, and outreach at Tribal Colleges or Universities, as applicable;

(C) assess the number of students who participated in such award programs; and

(D) assess the percentage of students participating in such award programs who successfully complete their education programs.

(3) REPORT.—Not later than 180 days after the date on which the evaluation under paragraph (1) is completed, the Director shall submit to Congress and make available to the public, a report on the results of the evaluation, including any recommendations for legislative action that could optimize the effectiveness of the award program authorized under section 525 of the America COMPETES Reauthorization Act of 2010, as amended by subsection (a).

SEC. 10526. DEFINITIONS.

In this subtitle:

(1) DIRECTOR.—The term ''Director'' means the Director of the National Science Foundation.

(2) HBCU.—The term ''HBCU'' has the meaning given the term ''part B institution'' in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061).

(3) MINORITY SERVING INSTITUTION.—The term ''minority serving institution'' or ''MSI'' means Hispanic-Serving Institutions as defined in section 502 of the Higher Education Act of 1965 (20 U.S.C. 1101a); Alaska Native Serving Institutions and Native Hawaiian-Serving Institutions as defined in section 317 of the Higher Education Act of 1965 (20 U.S.C. 1059d); and Predominantly Black Institutions, Asian American and Native American Pacific Islander-Serving Institutions, and Native American-Serving Nontribal Institutions as defined in section 371 of the Higher Education Act of 1965 (20 U.S.C. 1067q(c)).

(4) TCU.—The term ''TCU'' has the meaning given the term ''Tribal College or University'' in section 316 of the Higher Education Act of 1965 (20 U.S.C. 1059c).

Subtitle D—Combating Sexual Harassment in Science

SEC. 10531. FINDINGS.

Congress makes the following findings:

(1) According to the report issued by the National Academies of Sciences, Engineering, and Medicine in 2018 entitled ''Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine''—

(A) sexual harassment is pervasive in institutions of higher education;

(B) the most common type of sexual harassment is gender harassment;

(C) 58 percent of individuals in the academic workplace experience sexual harassment, the second highest rate when compared to the military, the private sector, and Federal, State, and local government;

(D) women who are members of racial or ethnic minority groups are more likely to experience sexual harassment and to feel unsafe at work than White women, White men, or men who are members of such groups;

(E) the training for each individual who has a Doctor of Philosophy in the science, technology, engineering, and mathematics fields is estimated to cost approximately $500,000; and

(F) attrition of an individual so trained results in a loss of talent and money.

(2) According to a 2017 University of Illinois study, among astronomers and planetary scientists, 18 percent of women who are members of racial or ethnic minority groups and 12 percent of White women skipped professional events because they did not feel safe attending.

(3) Reporting procedures with respect to sexual harassment are inconsistent among Federal research agencies and have varying degrees of accessibility.

(4) There is not adequate communication among Federal research agencies and between such agencies and recipients regarding reports of sexual harassment, which has resulted in harassers receiving Federal funding after moving to a different institution.

SEC. 10532. PURPOSE.

The purpose of this subtitle is to increase understanding of the causes and consequences of sex-based and sexual harassment, as discussed in the report issued by the National Academies in 2018 entitled ''Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine'', and to advance evidence-based approaches to reduce the prevalence and negative impact of such harassment.

SEC. 10533. DEFINITION.

In this subtitle, the term ''Director'' means the Director of the National Science Foundation.

SEC. 10534. RESEARCH AWARDS.

(a) IN GENERAL.—The Director shall make awards, on a competitive basis, to institutions of higher education or nonprofit organizations (or consortia of such institutions or organizations)—

(1) to expand research efforts to better understand the factors contributing to, and consequences of, sex-based and sexual harassment affecting individuals in the STEM workforce, including students and trainees; and

(2) to examine approaches to reduce the incidence and negative consequences of such harassment.

(b) USE OF FUNDS.—Activities funded by an award under this section may include—

(1) research on the sex-based and sexual harassment experiences of individuals, including in racial and ethnic minority groups, disabled individuals, foreign nationals, sexual-minority individuals, and others;

(2) development and assessment of policies, procedures, trainings, and interventions, with respect to sex-based and sexual harassment, conflict management, and ways to foster respectful and inclusive climates;

(3) research on approaches for remediating the negative impacts and outcomes of such harassment on individuals experiencing such harassment;

(4) support for institutions of higher education or nonprofit organizations to develop, adapt, implement, and assess the impact of innovative, evidence-based strategies, policies, and approaches to policy implementation to prevent and address sex-based and sexual harassment;

(5) research on alternatives to the power dynamics, hierarchical, and dependent relationships, including but not limited to the mentor-mentee relationship, in academia that have been shown to create higher levels of risk for and lower levels of reporting of sex- based and sexual harassment; and

(6) establishing a center for the ongoing compilation, management, and analysis of organizational climate survey data.

SEC. 10535. RESPONSIBLE CONDUCT GUIDE.

(a) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Director shall enter into an agreement with the National Academies to update the report entitled ''On Being a Scientist: A Guide to Responsible Conduct in Research'' issued by the National Academies. The report, as so updated, shall include—

(1) updated professional standards of conduct in research;

(2) promising practices for preventing, addressing, and mitigating the negative impact of sex-based and sexual harassment, to include—

(A) standards of treatment individuals can expect to receive under updated standards of conduct;

(B) evidence-based practices for fostering a climate intolerant of sex-based, sexual, and other forms of harassment;

(C) methods, including bystander intervention, for identifying and addressing incidents of such harassment; and

(D) professional standards for mentorship and teaching with an emphasis on power diffusion mechanisms and preventing such harassment; and

(3) promising practices for mitigating potential security risks that threaten research security.

(b) REPORT.—Not later than 18 months after the effective date of the agreement under subsection (a), the National Academies, as part of such agreement, shall submit to the Director and the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate the report referred to in such subparagraph, as updated pursuant to such subparagraph.

SEC. 10536. INTERAGENCY WORKING GROUP.

(a) IN GENERAL.—The Director of the Office of Science and Technology Policy, acting through the National Science and Technology Council, shall establish or designate an interagency working group for the purpose of coordinating Federal research agency efforts to reduce the prevalence of sex-based and sexual harassment involving award personnel. In coordination with the working group on inclusion in STEM fields established under section 308 of the American Innovation and Competitiveness Act (42 U.S.C. 6626) and the Safe Inclusive Research Environments Subcommittee of the National Science and Technology Council, and in consultation with representatives from each Federal research agency, the Office for Civil Rights at the Department of Health and Human Services, the Office for Civil Rights at the Department of Education, and the Equal Employment Opportunity Commission, the working group shall—

(1) not later than 90 days after the date of the enactment of this Act, submit to the Committee on Science, Space, and Technology, the Committee on Education and Labor, and the Committee on Energy and Commerce of the House of Representatives and the Committee on Commerce, Science, and Transportation and the Committee on Health, Education, Labor, and Pensions of the Senate an inventory of Federal research agency policies, procedures, and resources dedicated to preventing and responding to reports of sex-based and sexual harassment;

(2) not later than 6 months after the date on which the inventory is submitted under paragraph (1)—

(A) in consultation with outside stakeholders, develop a consistent set of policy guidelines for Federal research agencies; and

(B) submit a report to the committees referred to in paragraph (1) containing such guidelines;

(3) encourage and monitor efforts of Federal research agencies to develop or maintain and implement policies based on the guidelines developed under paragraph (2);

(4) not later than 1 year after the date on which the inventory under paragraph (1) is submitted, and every 5 years thereafter, the Director of the Office of Science and Technology Policy shall report to Congress on the implementation by Federal research agencies of the policy guidelines developed under paragraph (2); and

(5) update such policy guidelines as needed.

(b) REQUIREMENTS.—In developing policy guidelines under subsection (a)(2), the Director of the Office of Science and Technology Policy shall include guidelines that require, to the extent practicable—

(1) recipients to submit to the Federal research agency or agencies from which the recipients receive funding reports relating to—

(A) any decision made to launch a formal investigation of sex-based or sexual harassment, including bullying, retaliation, or hostile working conditions by, or of, award personnel;

(B) administrative action, related to an allegation against award personnel of any such harassment, as set forth in organizational policies or codes of conduct, statutes, regulations, or executive orders, that affects the ability of award personnel or their trainees to carry out the activities of the award;

(C) the total number of investigations with no findings or determinations of misconduct including such harassment;

(D) findings or determinations of such harassment, as set forth in organizational policies or codes of conduct, statutes, regulations, or Executive orders by, or of, award personnel, including the final disposition of a matter involving a violation of organizational policies and processes, to include the exhaustion of permissible appeals, or a determination of a sexual offense in a court of law, or any other disciplinary action taken;

(2) the sharing, updating, and archiving of reports of sex- based and sexual harassment from recipients submitted under paragraph (1) with relevant Federal research agencies, on a yearly basis and by agency request; and

(3) consistency among Federal research agencies with regard to the policies and procedures for receiving reports submitted pursuant to paragraph (1).

(4) FERPA.—The Director of the Office of Science and Technology Policy shall ensure that such guidelines and requirements are consistent with the requirements of section 444 of the General Education Provisions Act (20 U.S.C. 1232g) (commonly referred to as the ''Family Educational Rights and Privacy Act of 1974'').

(5) PRIVACY PROTECTIONS.—The Director of the Office of Science and Technology Policy shall ensure that such guidelines and requirements—

(A) do not infringe upon the privacy rights of individuals associated with reports submitted to Federal research agencies; and

(B) do not require recipients to provide interim reports to Federal research agencies.

(c) CONSIDERATIONS.—In carrying out subsection (a)(2), the Director of the Office of Science and Technology Policy shall consider issuing guidelines that require or incent—

(1) recipients to periodically assess their organizational climate, which may include the use of climate surveys, focus groups, or exit interviews;

(2) recipients to publish on a publicly available internet website the results of assessments conducted pursuant to paragraph (1), disaggregated by sex and, if practicable, race, ethnicity, disability status, and sexual orientation, and in a manner that does not include personally identifiable information;

(3) recipients to make public on an annual basis the number of reports of sex-based and sexual harassment at that institution or organization;

(4) recipients to regularly assess and improve policies, procedures, and interventions to reduce the prevalence of and improve the reporting of sex-based and sexual harassment;

(5) each entity applying for a research and development award certify that a code of conduct is in place for maintaining a healthy and welcoming workplace for award personnel and posted on their public website;

(6) each recipient and Federal research agency to have in place mechanisms for addressing the needs of individuals who have experienced sex-based and sexual harassment, including those individuals seeking to reintegrate at the recipient entity; and

(7) recipients to work to create a climate intolerant of sex- based and sexual harassment and that values and promotes diversity and inclusion.

(d) FEDERAL RESEARCH AGENCY IMPLEMENTATION.—Not later than 270 days after receiving the guidelines under paragraph (a)(2), each Federal research agency shall—

(1) develop or maintain and implement policies with respect to sex-based and sexual harassment that are consistent with policy guidelines under subsection (a)(2) and that protect the privacy of all parties involved in any report and investigation of sex-based or sexual harassment, to the maximum extent practicable; and

(2) broadly disseminate such policies to current and potential recipients of research and development awards made by such agency.

SEC. 10537. NATIONAL ACADEMIES ASSESSMENT.

Not later than 3 years after the date of enactment of this Act, the Director shall enter into an agreement with the National Academies to undertake a study and issue a report on the influence of sex-based and sexual harassment in institutions of higher education on the career advancement of individuals in the STEM workforce. The study shall assess—

(1) the state of research on sex-based and sexual harassment in such workforce;

(2) whether research demonstrates a decrease in the prevalence of sex-based and sexual harassment in such workforce;

(3) the progress made with respect to implementing recommendations promulgated in the National Academies consensus study report entitled ''Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine'';

(4) where to focus future efforts with respect to decreasing the prevalence of sex-based and sexual harassment in such institutions, including specific recommendations; and

(5) other recommendations and issues, as the National Academies determines appropriate.

SEC. 10538. GAO STUDY.

Not later than 3 years after the date of enactment of this division, the Comptroller General of the United States shall—

(1) complete a study that assesses the degree to which Federal research agencies have implemented the policy guidelines developed under

section 10536(a)(2) and the effectiveness of that implementation; and

(2) submit a report to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate on the results of such study, including recommendations on potential changes to practices and policies to improve those guidelines and that implementation.

SEC. 10539. AUTHORIZATION OF APPROPRIATIONS.

There is authorized to be appropriated to the Director to carry out this subtitle, $32,500,000.

TITLE VI—MISCELLANEOUS SCIENCE AND TECHNOLOGY PROVISIONS

Subtitle A—Supporting Early-career Researchers

SEC. 10601. EARLY-CAREER RESEARCH FELLOWSHIP PROGRAM.

(a) IN GENERAL.—The Director of the National Science Foundation may establish a 2-year pilot program to make awards to highly qualified early-career investigators to carry out an independent research program at the institution of higher education or participating Federal research facility chosen by such investigator, to last for a period not greater than two years.

(b) SELECTION PROCESS.—The Director of the National Science Foundation shall select recipients under subsection (a) from among citizens, nationals, and lawfully admitted permanent resident aliens of the United States.

(c) OUTREACH.—The Director of the National Science Foundation shall conduct program outreach to recruit fellowship applicants—

(1) from all regions of the country;

(2) from historically underrepresented populations in the fields of science, technology, engineering, and mathematics; and

(3) who graduate from or intend to carry out research at a variety of types of institutions of higher education, including—

(A) historically Black colleges and universities;

(B) Tribal Colleges and Universities;

(C) minority-serving institutions;

(D) institutions of higher education that are not among the top 50 institutions in annual Federal funding for research; and

(E) EPSCoR institutions.

(d) SPECIAL CONSIDERATION.—The Director of the National Science Foundation shall give special consideration and priority to an application from an individual who graduated from or is intending to carry out research at an institution of the type specified in subsection (c)(3).

(e) REPORTS FROM FELLOWS.—Not later than 180 days after the end of the pilot program under this section, each early-career investigator who receives an award under the pilot program shall submit to the Director of the National Science Foundation a report that describes how the early-career investigator used the award funds.

(f) REPORT FROM THE DIRECTOR.—Not later than 90 days after the conclusion of the second year of the pilot program, the Director of the National Science Foundation shall submit to Congress a report that includes the following:

(1) A summary of the uses of award funds under this section and the impact of the pilot program under this section.

(2) Statistical summary data on fellowship awardees disaggregated by race, ethnicity, sex, geography, age, years since completion of doctoral degree, and institution type.

(3) If determined effective, a plan for permanent implementation of the pilot program.

SEC. 10602. AUTHORIZATION OF APPROPRIATIONS.

There is authorized to be appropriated to the Director of the National Science Foundation $250,000,000 for each of fiscal years 2023 through 2024 to carry out the activities in this subtitle.

Subtitle B—National Science and Technology Strategy

SEC. 10611. NATIONAL SCIENCE AND TECHNOLOGY STRATEGY.

Section 206 of the National Science and Technology Policy, Organization, and Priorities Act of 1976 (42 U.S.C. 6615) is amended to read as follows:

''SEC. 206. NATIONAL SCIENCE AND TECHNOLOGY STRATEGY.

''(a) IN GENERAL.—Not later than December 31 of the year immediately after the calendar year in which a review under section 206B is completed, the Director of the Office of Science and Technology Policy shall, in coordination with the National Science and Technology Council, develop and submit to Congress a comprehensive national science and technology strategy of the United States to meet national research and development objectives for the following 4-year period (in this section referred to as 'the national science and technology strategy').

''(b) REQUIREMENTS.—In developing each national science and technology strategy described in subsection (a), the Director of the Office of Science and Technology Policy shall—

''(1) consider—

''(A) the recommendations and priorities developed by the review under section 206B;

''(B) the most recently published interim or final national security strategy report submitted pursuant to section 108 of the National Security Act of 1947 (50 U.S.C. 3043);

''(C) other relevant national plans, reports, and strategies; and

''(D) the strategic plans of relevant Federal departments and agencies; and

''(2) include a description of—

''(A) strategic objectives and research priorities necessary to maintain and advance—

''(i) the leadership of the United States in science and technology, including in the key technology focus areas, including near-term, medium-term, and long-term economic competitiveness; and

''(ii) the leadership of the United States in technologies required to address societal and national challenges, including a transition to a circular economy;

''(B) programs, policies, and activities that the President recommends across all Federal departments and agencies to achieve the strategic objectives and research priorities described in subparagraph (A);

''(C) plans to promote sustainability practices and strategies for increasing jobs in the United States;

''(D) global trends in science and technology, including potential threats to the leadership of the United States in science and technology and opportunities for international collaboration in science and technology; and

''(E) plans to foster the development of international partnerships to reinforce domestic policy actions, build new markets, engage in collaborative research, and create an international environment that reflects United States values and protects United States interests.

''(c) CONSULTATION.—The Director of the Office of Science and Technology Policy shall consult as necessary with the Office of Management and Budget and other appropriate elements of the Executive Office of the President to ensure that the recommendations and priorities delineated in the science and technology strategy are incorporated in the development of annual budget requests.

''(d) BI-ANNUAL BRIEFING TO CONGRESS.—The Director of the Office of Science and Technology Policy shall provide on a bi-annual basis, after each release of the national science and technology strategy, a briefing to the relevant congressional committees, which may include updates on the following:

''(1) The status and development of the national science and technology strategy, including any significant changes.

''(2) The implementation of the national science and technology strategy.

''(3) Any other information about the national science and technology strategy, as determined by the Director of the Office of Science and Technology Policy.

''(e) PUBLICATION.—The Director of the Office of Science and Technology Policy shall, consistent with the protection of national security and other sensitive matters to the maximum extent practicable, make each national science and technology strategy publicly available on an internet website of the Office. Each report may include a classified annex if the Director of the Office of Science and Technology Policy determines such is appropriate.

''(f) TERMINATION.—This section terminates on the date that is ten years after the date of the enactment of this section.''.

SEC. 10612. STRATEGY AND REPORT ON THE NATION'S ECONOMIC SECURITY, SCIENCE, RESEARCH, AND INNOVATION TO SUPPORT THE NATIONAL SECURITY STRATEGY.

(a) DEFINITIONS.—In this section:

(1) FOREIGN COUNTRY OF CONCERN.—The term ''foreign country of concern'' means the People's Republic of China, the Democratic People's Republic of Korea, the Russian Federation, the Islamic Republic of Iran, or any other country determined to be a country of concern by the Department of State.

(2) FOREIGN ENTITY OF CONCERN.—The term ''foreign entity of concern'' means a foreign entity that is—

(A) designated as a foreign terrorist organization by the Secretary of State under section 219(a) of the Immigration and Nationality Act (8 U.S.C. 1189(a));

(B) included on the list of specially designated nationals and blocked persons maintained by the Office of Foreign Assets Control of the Department of the Treasury (commonly known as the SDN list);

(C) owned by, controlled by, or subject to the jurisdiction or direction of a government of a foreign country that is a covered nation (as such term is defined in section 4872 of title 10, United States Code);

(D) alleged by the Attorney General to have been involved in activities for which a conviction was obtained under—

(i) chapter 37 of title 18, United States Code (commonly known as the Espionage Act);

(ii) section 951 or 1030 of title 18, United States Code;

(iii) chapter 90 of title 18, United States Code (commonly known as the Economic Espionage Act of 1996);

(iv) the Arms Export Control Act (22 U.S.C. 2751 et seq.);

(v) section 224, 225, 226, 227, or 236 of the Atomic Energy Act of 1954 (42 U.S.C. 2274, 2275, 2276, 2277, and 2284);

(vi) the Export Control Reform Act of 2018 (50 U.S.C. 4801 et seq.); or

(vii) the International Emergency Economic Powers Act (50 U.S.C. 1701 et seq.); or

(E) determined by the Secretary of Commerce, in consultation with the Secretary of Defense and the Director of National Intelligence, to be engaged in unauthorized conduct that is detrimental to the national security or foreign policy of the United States.

(3) NATIONAL SECURITY STRATEGY.—The term ''national security strategy'' means the national security strategy required under section 108 of the National Security Act of 1947 (50 U.S.C. 3043).

(b) STRATEGY AND REPORT.—

(1) IN GENERAL.—Not later than 90 days after the transmission of each national security strategy under section 108(a) of the National Security Act of 1947 (50 U.S.C. 3043(a)), the President, acting through the Director of the Office of Science and Technology Policy, shall, in coordination with the National Science and Technology Council, the National Security Council,

the Director of the National Economic Council, and the heads of such other relevant Federal agencies as the Director of the Office of Science and Technology Policy considers appropriate and in consultation with such nongovernmental partners as the Director of the Office of Science and Technology Policy considers appropriate—

(A) review such strategy, including the national defense strategy under subsection (g) of section 113 of title 10, United States Code, and the national science and technology strategy under section 206 of the National Science and Technology Policy, Organization, and Priorities Act of 1976 (42 U.S.C. 6615), programs, and resources as the Director of the Office of Science and Technology Policy determines pertain to United States' national competitiveness in science, technology, research, innovation, and technology transfer activities, including patenting and licensing, that support the national security strategy;

(B) develop or revise a national strategy to improve the national competitiveness of United States science, technology, research, and innovation to support the national security strategy; and

(C) submit to Congress—

(i) a report on the findings of the Director of the Office of Science and Technology Policy with respect to the review conducted pursuant to subparagraph (A); and

(ii) the strategy developed or revised pursuant to subparagraph (B).

(2) TERMINATION.—This subsection terminates on the date that is 5 years after the date of the enactment of this Act.

(c) ELEMENTS.—

(1) REPORT.—Each report submitted under subsection (b)(1)(C)(i) shall include the following:

(A) An assessment of the efforts of the United States Government to preserve United States leadership in key emerging technologies and prevent United States strategic competitors from leveraging advanced technologies to gain strategic military or economic advantages over the United States.

(B) An assessment of public and private investment in science and technology relevant to national security purposes, and the implications of such for the geostrategic position of the United States.

(C) A description of the prioritized economic security interests and objectives.

(D) An assessment of global trends in science and technology, including potential threats to the national security of the United States in science and technology.

(E) An assessment of the national debt and its implications for the economic and national security of the United States.

(F) An assessment of how regional innovation capacity efforts in STEM fields are contributing and could contribute to the national security the United States, including programs run by State and local governments.

(G) An assessment of the following:

(i) Workforce needs for competitiveness in technology areas identified in the national security strategy.

(ii) Any efforts needed to expand pathways into technology fields to achieve the goals of the national security strategy.

(H) An assessment of barriers to the development, evolution, or competitiveness of start-ups, small and mid-sized business entities, and industries that are critical to national security.

(I) An assessment of the effectiveness of the Federal Government, federally funded research and development centers, and national laboratories in supporting and promoting the technology commercialization and technology transfer of technologies critical to national security.

(J) An assessment of manufacturing capacity, logistics, and supply chain dynamics of major export sectors that are critical to national security, including access to a skilled workforce, physical infrastructure, and broadband network infrastructure.

(K) An assessment of how the Federal Government is increasing the participation of underrepresented populations in science, research, innovation, and manufacturing.

(L) An assessment of public-private partnerships in technology commercialization in support of national security, including—

(i) the structure of current defense technology research and commercialization arrangements with regard to public-private partnerships; and

(ii) the extent to which intellectual property developed with Federal defense funding—

(I) is being used to manufacture in the United States rather than in other countries; and

(II) is being used by foreign business entities that are majority owned or controlled (as such term is defined in section 800.208 of title 31, Code of Federal Regulations, or a successor regulation), or minority owned greater than 25 percent by—

(aa) any governmental organization of a foreign country of concern; or

(bb) any other entity that is—

(AA) known to be owned or controlled by any governmental organization of a foreign country of concern; or

(BB) organized under, or otherwise subject to, the laws of a foreign country of concern.

(M) Recommendations to enhance the ability of the Federal Government to recruit into Federal service and retain in such service individuals with critical skills relevant to national security.

(N) Recommendations for policies to protect United States leadership and the allies of the United States in critical areas relevant to national security through targeted export controls, investment screening, and counterintelligence activities.

(O) Informed by the interagency process established under section 1758 of the Export Control Reform Act of 2018, a technology annex, which may be classified, describing an integrated and enduring approach to the identification, prioritization, development, and fielding of emerging technologies relevant to national security.

(2) STRATEGY.—Each strategy submitted under subsection (b)(1)(C)(ii) shall, to the extent practicable, include the following:

(A) A plan to utilize available tools to address or minimize the leading threats and challenges and to take advantage of the leading opportunities, particularly in regards to technologies central to international competition in science and technology relevant to national security purposes, including the following:

(i) Specific objectives, tasks, metrics, and milestones for each relevant Federal agency.

(ii) Strategic objectives and priorities necessary to maintain the leadership of the United States in science and technology relevant to national security purposes, including near-term, medium-term, and long-term research priorities.

(iii) Specific plans to safeguard research and technology funded, as appropriate, in whole or in part, by the Federal Government, including in technologies critical to national security, from theft or exfiltration by foreign entities of concern.

(iv) Specific plans to support public and private sector investment in research, technology development, education and workforce development, and domestic manufacturing supportive of the national security of the United States and to foster the use of public-private partnerships.

(v) A description of the following:

(I) How the strategy submitted under subsection (b)(1)(C)(ii) supports the national security strategy.

(II) How the strategy submitted under such subsection is integrated and coordinated with the most recent—

(aa) national defense strategy under subsection (g) of section 113 of title 10, United States Code; and

(bb) national science and technology strategy under section 206 of the National Science and Technology Policy, Organization, and Priorities Act of 1976 (42 U.S.C. 6615).

(vi) A plan to encourage the governments of countries that are allies or partners of the United States to cooperate with the execution of such strategy, where appropriate.

(vii) A plan for strengthening the industrial base of the United States.

(viii) A plan to remove or update overly burdensome or outdated Federal regulations, as appropriate.

(ix) A plan—

(I) to further incentivize industry participation in public-private partnerships for the purposes of accelerating technology research and commercialization in support of national security, including alternate ways of accounting for in-kind contributions and valuing partially manufactured products;

(II) to ensure that intellectual property developed with Federal funding is commercialized in the United States; and

(III) to ensure, to the maximum appropriate extent, that intellectual property developed with Federal funding is not being used by foreign business entities that are majority owned or controlled (as such term is defined in section 800.208 of title 31, Code of Federal Regulations, or a successor regulation), or minority owned greater than 25 percent by—

(aa) any governmental organization of a foreign country of concern; or

(bb) any other entity that is—

(AA) known to be owned or controlled by any governmental organization of a foreign country of concern; or

(BB) organized under, or otherwise subject to, the laws of a foreign country of concern.

(x) An identification of additional resources, administrative action, or legislative action recommended to assist with the implementation of such strategy.

(d) RESEARCH AND DEVELOPMENT FUNDING.—The Director of the Office of Science and Technology Policy shall, as the Director of the Office of Science and Technology Policy considers necessary, consult with the Director of the Office of Management and Budget and with the heads of such other elements of the Executive Office of the President as the Director of the Office of Science and Technology Policy considers appropriate to ensure the recommendations and priorities with respect to research and development funding relevant to national security, as expressed in the most recent report and strategy submitted under subsection (b)(1)(C) are incorporated into the development of annual budget requests for Federal research agencies.

(e) PUBLICATION.—The Director of the Office of Science and Technology Policy shall, consistent with the protection of national security and other sensitive matters and to the maximum extent practicable, make each report submitted under subsection (b)(1)(C)(i) publicly available on an internet website of the Office of Science and Technology Policy. Each such report may include a classified annex if the Director of the Office of Science and Technology Policy determines such is appropriate.

SEC. 10613. QUADRENNIAL SCIENCE AND TECHNOLOGY REVIEW.

The National Science and Technology Policy, Organization, and Priorities Act of 1976 (42 U.S.C. 6601 et seq.) is amended by inserting after section 206 the following new section:

"SEC. 206B. QUADRENNIAL SCIENCE AND TECHNOLOGY REVIEW.

''(a) REQUIREMENTS.—

''(1) QUADRENNIAL REVIEWS REQUIRED.—Not later than December 31, 2023, and every four years thereafter, the Director of the Office of Science and Technology Policy shall complete a review of the science and technology enterprise of the United States (in this section referred to as the 'quadrennial science and technology review').

''(2) SCOPE.—The quadrennial science and technology review shall be a comprehensive examination of the science and technology strategy of the United States, including recommendations for maintaining global leadership in science and technology and advancing science and technology to address the societal and national challenges and guidance regarding the coordination of programs, assets, capabilities, budget, policies, and authorities across all Federal research and development programs.

''(3) CONSULTATION.—The Director of the Office of Science and Technology Policy shall conduct each quadrennial science and technology review in consultation with the following:

''(A) The National Science and Technology Council.

''(B) The President's Council of Advisors on Science and Technology.

''(C) The National Science Board.

''(D) The National Security Council.

''(E) The heads of other relevant Federal agencies.

''(F) Other relevant governmental and nongovernmental entities, including representatives from industry, institutions of higher education, nonprofit organizations, Members of Congress, and other policy experts.

''(4) COORDINATION.—The Director of the Office of Science and Technology Policy shall ensure that each quadrennial science and technology review is coordinated with other relevant statutorily required reviews, and to the maximum extent practicable incorporates information and recommendations from existing reviews to avoid duplication.

''(b) CONTENTS.—In each quadrennial science and technology review, the Director of the Office of Science and Technology Policy shall—

''(1) provide an integrated view of, and recommendations for, science and technology policy across the Federal Government, while considering economic and national security and other societal and national challenges;

''(2) assess and recommend priorities for research, development, and demonstration programs to maintain United States leadership in science and technology, including in manufacturing and industrial innovation;

''(3) assess and recommend priorities for research, development, and demonstration programs to address societal and national challenges;

''(4) assess the global competition in science and technology and identify potential threats to the leadership of the United States in science and technology and opportunities for international collaboration;

''(5) assess and make recommendations on the science, technology, engineering, mathematics, and computer science workforce of the United States;

''(6) assess and make recommendations to improve regional innovation across the United States;

''(7) identify and assess sectors critical for the long-term resilience of United States innovation leadership across design, manufacturing, supply chains, and markets;

''(8) assess and make recommendations to improve translation of basic and applied research and the enhancement of technology transfer of federally funded research;

''(9) identify, assess, and make recommendations to address science and technology gaps that would not be met without Federal investment;

''(10) review administrative and legislative policies and funding opportunities that affect private sector science and technology activities, and identify and make recommendations regarding policies that maintain and grow the participation and competitiveness of small- and medium-sized businesses;

''(11) assess and identify the infrastructure and tools needed to maintain the leadership of the United States in science and technology and address other societal and national challenges; and

''(12) review administrative or legislative policies that affect the science and technology enterprise and identify and make recommendations regarding policies that hinder research and development in the United States.

''(c) REPORTING.—

''(1) IN GENERAL.—Not later than December 31 of the year in which a quadrennial science and technology review is conducted, the Director of the Office of Science and Technology Policy shall submit to Congress a report relating to such review.

''(2) PUBLICATION.—The Director of the Office of Science and Technology Policy shall, consistent with the protection of national security and other sensitive matters to the maximum extent practicable, make each report submitted under paragraph (1) publicly available on an internet website of the Office of Science and Technology Policy. Each report may include a classified annex if the Director of the Office of Science and Technology Policy determines such appropriate.

''(d) TERMINATION.—This section shall terminate on the date that is ten years after the date of the enactment of this section.''.

Subtitle C—Regional Innovation

SEC. 10621. REGIONAL INNOVATION CAPACITY.

(a) IN GENERAL.—The Stevenson-Wydler Technology Innovation Act of 1980 (Public Law 96–480; 15 U.S.C. 3701 et seq.) is amended—

(1) by redesignating section 28 as section 30; and

(2) by inserting after section 27 the following:

''SEC. 28. REGIONAL TECHNOLOGY AND INNOVATION HUB PROGRAM.

''(a) DEFINITIONS.—In this section:

''(1) APPROPRIATE COMMITTEES OF CONGRESS.—The term 'appropriate committees of Congress' means—

''(A) the Committee on Commerce, Science, and Transportation, the Committee on Environment and Public Works, and the Committee on Appropriations of the Senate; and

''(B) the Committee on Science, Space, and Technology and the Committee on Appropriations of the House of Representatives.

''(2) COOPERATIVE EXTENSION SERVICES.—The term 'cooperative extension services' has the meaning given the term in section 1404 of the Food and Agriculture Act of 1977 (7 U.S.C. 3103).

''(3) SITE CONNECTIVITY INFRASTRUCTURE.—The term 'site connectivity infrastructure' means localized driveways and access roads to a facility as well as hookups to the new facility for drinking water, waste water, broadband, and other basic infrastructure services already present in the area.

''(4) VENTURE DEVELOPMENT ORGANIZATION.—The term 'venture development organization' has the meaning given such term in section 27(a) of the Stevenson-Wydler Act of 1980 (15 U.S.C. 3722(a)).

''(5) COMMUNITY DEVELOPMENT FINANCIAL INSTITUTION.—The term 'community development financial institution' has the meaning given in section 103 of the Community Development Banking and Financial Institutions Act of 1994 (12 U.S.C. 4702).

''(6) MINORITY DEPOSITORY INSTITUTION.—The term 'minority depository institution' means an entity that is—

''(A) a minority depository institution, as defined in section 308 of the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (12 U.S.C. 1463 note); or

''(B) considered to be a minority depository institution by—

''(i) the appropriate Federal banking agency; or

''(ii) the National Credit Union Administration, in the case of an insured credit union.

''(7) LOW POPULATION STATE.—The term 'low population State' means a State without an urbanized area with a population greater than 250,000 as reported in the decennial census.

''(8) SMALL AND RURAL COMMUNITIES.—The term 'small and rural community' means a noncore area, a micropolitan area, or a small metropolitan statistical area with a population of not more than 250,000.

''(b) REGIONAL TECHNOLOGY AND INNOVATION HUB PROGRAM.—

''(1) IN GENERAL.—Subject to the availability of appropriations, the Secretary shall carry out a program—

''(A) to encourage new and constructive collaborations among local, State, Tribal, and Federal government entities, institutions of higher education, the private sector, economic development organizations, labor organizations, nonprofit organizations, and community organizations that promote broad-based regional innovation initiatives;

''(B) to support eligible consortia in the development and implementation of regional innovation strategies;

''(C) to designate eligible consortia as regional technology and innovation hubs and facilitate activities by consortia designated as regional technology and innovation hubs in implementing their regional innovation strategies—

''(i) to enable United States leadership in technology and innovation sectors critical to national and economic security;

''(ii) to support regional economic development and resilience, including in small cities and rural areas, and promote increased geographic diversity of innovation across the United States;

''(iii) to promote the benefits of technology development and innovation for all Americans, including underserved communities and vulnerable communities;

''(iv) to support the modernization and expansion of United States manufacturing based on advances in technology and innovation;

''(v) to support domestic job creation and broad-based economic growth; and

''(vi) to improve the pace of market readiness, industry maturation, and overall commercialization and domestic production of innovative research;

''(D) to ensure that the regional technology and innovation hubs address the intersection of emerging technologies and either regional challenges or national challenges; and

''(E) to conduct ongoing research, evaluation, analysis, and dissemination of best practices for regional development and competitiveness in technology and innovation.

''(2) AWARDS.—The Secretary shall carry out the program required by paragraph (1) through the award of the following:

''(A) Strategy development grants or cooperative agreements to eligible consortia under subsection (e).

''(B) Strategy implementation grants or cooperative agreements to regional technology and innovation hubs under subsection (f).

''(3) ADMINISTRATION.—The Secretary shall carry out this section through the Assistant Secretary of Commerce for Economic Development in coordination with the Under Secretary of Commerce for Standards and Technology.

''(c) ELIGIBLE CONSORTIA.—For purposes of this section, an eligible consortium is a consortium that—

''(1) includes 1 or more of each of the following—

''(A) institutions of higher education, which may include Historically Black Colleges and Universities, Tribal Colleges or Universities, and minority-serving institutions;

''(B) State, territorial, local, or Tribal governments or other political subdivisions of a State, including State and local agencies, or a consortium thereof;

''(C) industry or firms in relevant technology, innovation, or manufacturing sectors;

''(D) economic development organizations or similar entities that are focused primarily on improving science, technology, innovation, entrepreneurship, or access to capital; and

''(E) labor organizations or workforce training organizations, which may include State and local workforce development boards as established under sections 101 and 107 of the Workforce Investment and Opportunity Act (29 U.S.C. 3111; 3122); and

''(2) may include 1 or more—

''(A) economic development entities with relevant expertise, including a district organization (as defined in section 300.3 of title 13, Code of Federal Regulations, or successor regulation);

''(B) organizations that contribute to increasing the participation of underserved populations in science, technology, innovation, and entrepreneurship;

''(C) venture development organizations;

''(D) organizations that promote local economic stability, high-wage domestic jobs, and broad-based economic opportunities, such as employee ownership membership associations and State or local employee ownerships and cooperative development centers, financial institutions and investment funds, including community development financial institutions and minority depository institutions;

''(E) elementary schools and secondary schools, including area career and technical education schools (as defined in section 3 of the Carl D. Perkins Career and Technical Education Act of 2006 (29 U.S.C. 2302);

''(F) National Laboratories (as defined in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801));

''(G) Federal laboratories;

''(H) Manufacturing extension centers;

''(I) Manufacturing USA institutes;

''(J) transportation planning organizations;

''(K) a cooperative extension services;

''(L) organizations that represent the perspectives of underserved communities in economic development initiatives; and

''(M) institutions receiving an award under section 10388 of the Research and Development, Competition, and Innovation Act.

''(d) DESIGNATION OF REGIONAL TECHNOLOGY AND INNOVATION HUBS.—

''(1) IN GENERAL.—In carrying out subsection (b)(1)(C), the Secretary shall use a competitive, merit-review process to designate eligible consortia as regional technology and innovation hubs.

''(2) DISTRIBUTION.—In conducting the competitive process under paragraph (1), the Secretary shall ensure geographic and demographic diversity in the designation of regional technology hubs by, subject to available appropriations, designating at least 20 technology hubs, and—

''(A) seeking to designate at least three technology hubs in each region covered by a regional office of the Economic Development Administration, while—

''(i) ensuring that not fewer than one-third of eligible consortia so designated as regional technology hubs significantly benefit a small and rural community, which may include a State or territory described in clauses (ii) and (iii);

''(ii) ensuring that not fewer than one-third of eligible consortia so designated as regional technology hubs include as a member of the eligible consortia at least 1 member that is a State or territory that is eligible to receive funding from the Established Program to Stimulate Competitive Research of the National Science Foundation; and

''(iii) ensuring that at least one eligible consortium so designated as a regional technology hub is headquartered in a low population State that is eligible to receive funding from the Established Program to Stimulate Competitive Research of the National Science Foundation;

''(B) seeking to designate an additional two regional technology hubs based on selection factors which shall include likelihood of success and may include regional factors such as the extent to which the regional technology and innovation hub significantly engages and benefits underserved communities in and near metropolitan areas;

''(C) encouraging eligible consortia to leverage institutions of higher education serving populations historically underrepresented in STEM, including historically Black Colleges and Universities, Tribal Colleges or Universities, and minority-serving institutions to significantly benefit an area or region; and

''(D) encouraging proposals from eligible consortia that would significantly benefit an area or region whose economy significantly relies on or has recently relied on coal, oil, or natural gas production or development.

''(3) RELATION TO CERTAIN GRANT AWARDS.—The Secretary shall not require an eligible consortium to receive a grant or cooperative agreement under subsection (e) in order to be designated as a regional technology and innovation hub under paragraph (1) of this subsection.

''(e) STRATEGY DEVELOPMENT GRANTS AND COOPERATIVE AGREEMENTS.—

''(1) IN GENERAL.—The Secretary shall use a competitive, merit-review process to award grants or cooperative agreements to eligible consortia for the development of regional innovation strategies.

''(2) NUMBER OF RECIPIENTS.—Subject to availability of appropriations, the Secretary shall seek to award a grant or cooperative agreement under paragraph (1) to not fewer than 60 eligible consortia.

''(3) GEOGRAPHIC DIVERSITY AND REPRESENTATION.—

''(A) IN GENERAL.—The Secretary shall carry out paragraph (1) in a manner that ensures geographic diversity and representation from communities of differing populations.

''(B) AWARDS TO SMALL AND RURAL COMMUNITIES.—In carrying out paragraph (1), the Secretary shall—

''(i) award not fewer than one-third of the grants and cooperative agreements under such paragraph to eligible consortia that significantly benefit a small and rural community, which may include a State described in clause (ii); and

''(ii) award not fewer than one-third of the grants and cooperative agreements under such paragraph to eligible consortia that include as a member of the eligible consortia at least 1 member that is a State or territory that is eligible to receive funding from the Established Program to Stimulate Competitive Research of the National Science Foundation.

''(4) USE OF FUNDS.—

''(A) Use of funds under this grant shall include—

''(i) coordination of a locally defined planning processes, across jurisdictions and agencies, relating to developing a comprehensive regional technology strategy;

''(ii) identification of regional partnerships for developing and implementing a comprehensive regional technology strategy;

''(iii) implementation or updating of assessments to determine regional needs and capabilities;

''(iv) development or updating of goals and strategies to implement an existing comprehensive regional plan;

''(v) identification or implementation of planning and local zoning and other code changes necessary to implement a comprehensive regional technology strategy; and

''(vi) development of plans for promoting broad-based economic growth in a region.

''(B) Use of funds under this grant may include the formation of a workforce development strategy, according to the needs for a skilled and technical workforce at all skill and degree levels in the region proposed to be served by the eligible consortia. Any workforce development strategy submitted pursuant to paragraph (1) should include—

''(i) how the eligible consortia will develop, offer, or improve educational or career training programs and curriculum for a skilled and technical workforce;

''(ii) the extent to which such programs developed and offered by the eligible consortia will meet the educational or career training needs of a skilled and technical workforce in the region to be served;

''(iii) how the eligible consortia will provide facilities for students to receive training under such programs developed and offered by the eligible consortia; and

''(iv) how the eligible consortia will enhance outreach and recruitment for such programs developed and offered by the eligible consortia to populations underrepresented in STEM.

''(5) FEDERAL SHARE.—The Federal share of the cost of an effort carried out using a grant or cooperative agreement awarded under this subsection may not exceed 80 percent—

''(A) where in-kind contributions may be used for all or part of the non-Federal share, but Federal funding from other government sources may not count towards the non-Federal share;

''(B) except in the case of an eligible consortium that represents all or part of a small and rural or other underserved community, the Federal share may be up to 90 percent of the total cost, subject to subparagraph (A); and

''(C) except in the case of an eligible consortium that is led by a Tribal government, the Federal share may be up to 100 percent of the total cost of the project.

''(f) STRATEGY IMPLEMENTATION GRANTS AND COOPERATIVE AGREEMENTS.—

''(1) IN GENERAL.—The Secretary shall use a competitive, merit-review process to award grants or cooperative agreements to regional technology and innovation hubs for the implementation of regional innovation strategies, including regional strategies for infrastructure and site development, in support of the regional innovation and technology and innovation hub's plans and programs. The Secretary should determine the size and number of awards based on appropriations available to ensure the success of regional technology and innovation hubs as outlined in subsection (h).

''(2) USE OF FUNDS.—Grants or cooperative agreements awarded under paragraph (1) to a regional technology and innovation hub may be used by the regional technology and innovation hub to support any of the following activities, consistent with the most current regional innovation strategy of the regional technology and innovation hub, which may have been developed with or without financial assistance received under subsection (e) of this section:

''(A) WORKFORCE DEVELOPMENT ACTIVITIES.—Workforce development activities including activities relating to the following:

''(i) The creation of partnerships between industry, workforce, nonprofit, and educational institutions, which may include community colleges, to create and align technical training and educational programs, including for a skilled technical workforce.

''(ii) The design, development, and updating of educational and training curriculum and programs, including training of trainers, teachers, or instructors tied to demonstrated regional skilled and technical workforce needs.

''(iii) The procurement of facilities and equipment, as required to train a skilled and technical workforce.

''(iv) The development and execution of programs, including traineeships and apprenticeships, to rapidly provide training and award certificates or credentials recognized by regional industries or other organizations.

''(v) The matching of regional employers with a potential new entrant, underemployed, underrepresented, reentering, or incumbent workforce, as well as the securing of commitments from employers to hire workers who successfully complete training programs, or who are awarded certificates or credentials.

''(vi) The expansion of successful training programs at a scale required by the region served by the regional technology and innovation hub, including through the use of online education and mentoring.

''(vii) The development and expansion of programs with the goal of increasing the participation of persons historically underrepresented in STEM and manufacturing in the workforce development plans of the regional technology and innovation hub.

''(viii) The provision of support services for attendees of training programs developed, updated, or expanded pursuant to this subsection, including career counseling.

''(ix) The implementation of outreach and recruitment for training programs developed, updated, or expanded pursuant to this subsection, particularly at local educational institutions, including high schools and community colleges.

''(B) BUSINESS AND ENTREPRENEUR DEVELOPMENT ACTIVITIES.—Business and entrepreneur development activities, including activities relating to the following:

''(i) The development and growth of local and regional businesses and the training of entrepreneurs, which may include support for the expansion of employee owned businesses and cooperatives.

''(ii) The support of technology commercialization, including funding for activities relevant to the protection of intellectual property and for advancing potential ventures such as acceleration, incubation, early-stage production and other relevant programming.

''(iii) The development of local and regional capital networks and consortia to attract necessary private funding to businesses and entrepreneurs in the region.

''(iv) The development of local and regional networks for business and entrepreneur mentorship.

''(C) TECHNOLOGY DEVELOPMENT AND MATURATION ACTIVITIES.—Technology maturation activities, including activities relating to the following:

''(i) The development and deployment of technologies in sectors critical to the region served by the regional technology and innovation hub or to national and economic security, including industry-university research cooperation, proof of concept, prototype development, testing, and scale-up for manufacturing.

''(ii) The development of programming to support the creation and transfer of intellectual property into private use, such as through start-up creation.

''(iii) The provision of facilities for technology maturation, including incubators and production testbeds for collaborative development of technologies by private sector, academic, nonprofit, and other entities.

''(iv) Activities to provide or ensure access to capital for new business and business expansion, including by attracting new private, public, and philanthropic investment and by establishing local and regional venture and loan funds, community development financial institutions, and minority depository institutions.

''(D) INFRASTRUCTURE-RELATED ACTIVITIES.—The building of facilities and site connectivity infrastructure necessary to carry out activities described in subparagraphs (A), (B), and (C), including activities relating to the following:

''(i) Establishing a center with required tools and instrumentation for workforce development.

''(ii) Establishing a facility for technology development, demonstration, and testing.

''(iii) Establishing collaborative incubators to support technology commercialization and entrepreneur training.

''(3) TERM.—

''(A) INITIAL PERFORMANCE PERIOD.—The term of an initial grant or cooperative agreement awarded under this subsection shall be for a period that the Secretary deems appropriate for the proposed activities but not less than 2 years.

''(B) SUBSEQUENT PERFORMANCE PERIOD.—The Secretary may renew a grant or cooperative agreement awarded to a regional technology and innovation hub under paragraph (1) for such period as the Secretary considers appropriate, if the Secretary determines that the regional technology and innovation hub has made satisfactory progress towards the metrics agreed to under subsection (j).

''(C) FLEXIBLE APPROACH.—In renewing a grant or cooperative agreement under subparagraph (B), the Secretary and the eligible consortium may agree to new or additional uses of funds in order to meet changes in the needs of the region.

''(4) LIMITATION ON AMOUNT OF AWARDS.—

''(A) INITIAL PERFORMANCE PERIOD.—The amount of an initial grant or cooperative agreements awarded to a regional technology and innovation hub under paragraph (3)(A) shall be no more than $150,000,000.

''(B) SUBSEQUENT PERFORMANCE PERIOD.—Upon renewal of a grant or cooperative agreement under paragraph (3)(B), the Secretary may award funding in the amount that the Secretary considers appropriate, ensuring that no single regional technology and innovation hub receives more than 10 percent of the aggregate amount of the grants and cooperative agreements awarded under this subsection.

''(5) MATCHING REQUIRED.—

''(A) INITIAL PERFORMANCE PERIOD.—Except in the case of a regional technology and innovation hub described in subparagraph (C), the total amount of all grants awarded to a regional technology and innovation hub under this subsection in phase one shall not exceed 90 percent of the total operating costs of the regional technology and innovation hub during the initial performance period.

''(B) SUBSEQUENT PERFORMANCE PERIOD.—Except in the case of a regional technology and innovation hub described in subparagraph (C), the total amount of all grants awarded to a regional technology and innovation hub in subsequent performance periods shall not exceed 75 percent of the total operating costs of the regional technology and innovation hub in each year of the grant or cooperative agreement.

''(C) SMALL AND RURAL COMMUNITIES, UNDERSERVED COMMUNITIES, AND INDIAN TRIBES.—

''(i) IN GENERAL.—The total Federal financial assistance awarded in a given year to a regional technology and innovation hub under this subsection shall not exceed amounts as follows:

''(I) In the case of a regional technology and innovation hub that primarily serves a small and rural community or other underserved community, in a fiscal year, 90 percent of the total funding of the regional technology and innovation hub in that fiscal year.

''(II) In the case of a regional technology and innovation hub that is led by a Tribal government, in a fiscal year, 100 percent of the total funding of the regional technology and innovation hub in that fiscal year.

''(ii) MINIMUM THRESHOLD OF RURAL REPRESENTATION.—For purposes of clause (i)(I), the Secretary shall establish a minimum threshold of rural representation in the regional technology and innovation hub.

''(D) IN-KIND CONTRIBUTIONS.—For purposes of this paragraph, in-kind contributions may be used for part of the non-Federal share of the total funding of a regional technology and innovation hub in a fiscal year.

''(6) GRANTS FOR INFRASTRUCTURE.—Any grant or cooperative agreement awarded under this subsection to support the construction of facilities and site connectivity infrastructure shall be awarded pursuant to section 201 of the Public Works and Economic Development Act of 1965 (42 U.S.C. 3141) and subject to the provisions of such Act, except that subsection (b) of such section and sections 204 and 301 of such Act (42 U.S.C. 3144; 3161) shall not apply.

''(7) RELATION TO CERTAIN GRANT AWARDS.—The Secretary shall not require a regional technology and innovation hub to receive a grant or cooperative agreement under subsection (e) in order to receive a grant or cooperative agreement under this subsection.

''(g) APPLICATIONS.—An eligible consortium seeking designation as a regional technology and innovation hub under subsection (d) or a grant or cooperative agreement under subsection (e) or (f) shall submit to the Secretary an application therefore at such time, in such manner, and containing such information as the Secretary may specify.

''(h) CONSIDERATIONS FOR DESIGNATION AND AWARD OF STRATEGY IMPLEMENTATION GRANTS AND COOPERATIVE AGREEMENTS.—In selecting an eligible consortium that submitted an application under subsection (g) for designation under subsection (d) or for a grant or cooperative agreement under subsection (f), the Secretary shall consider the following:

''(1) The potential of the eligible consortium to advance the research, development, deployment, and domestic manufacturing of technologies in a key technology focus area, as described in section 10387 of the Research and Development, Competition, and Innovation Act or other technology or innovation sector critical to national security and economic competitiveness.

''(2) The likelihood of positive regional economic effect, including increasing the number of high wage domestic jobs, creating new economic opportunities for economically disadvantaged and underrepresented populations, and building and retaining wealth in the region.

''(3) How the eligible consortium plans to integrate with and leverage the resources of 1 or more federally funded research and development centers, National Laboratories, Federal laboratories, Manufacturing USA institutes, Hollings Manufacturing Extension Partnership centers, regional innovation engines or translation accelerators established under sections 10388 and 10389 of the Research and Development, Competition, and Innovation Act, test beds established and operated under section 10390 of such Act, or other Federal entities.

''(4) How the eligible consortium will engage with the private sector, including small- and medium-sized businesses and cooperatives, and employee-owned businesses and cooperatives, to commercialize new technologies and improve the resiliency and sustainability of domestic supply chains in a key technology focus area, or other technology or innovation sector critical to national security and economic competitiveness.

''(5) How the eligible consortium will carry out workforce development and skills acquisition programming, including through partnerships with entities that include State and local workforce development boards, institutions of higher education, including community colleges, historically Black colleges and universities, Tribal Colleges or Universities, and minority-serving institutions, labor organizations, nonprofit organizations, workforce development programs, and other related activities authorized by the Secretary, to support the development of a skilled technical workforce for the regional technology and innovation hub, including key technology focus area or other technology or innovation sector critical to national security and economic competitiveness.

''(6) How the eligible consortium will improve or expand science, technology, engineering, and mathematics education programs and opportunities in the identified region in elementary and secondary school and higher education institutions located in the identified region to support the development of a key technology focus area or other technology or innovation sector critical to national security and economic competitiveness.

''(7) How the eligible consortium plans to develop partnerships with venture development organizations, community development financial institutions and minority depository institutions, and sources of private investment in support of private sector activity, including launching new or expanding existing companies in a key technology focus area or other technology or innovation sector critical to national security and economic competitiveness.

''(8) How the eligible consortium plans to organize the activities of regional partners across

sectors in support of a regional technology and innovation hub.

''(9) How the eligible consortium considers opportunities to support local and regional businesses through procurement, including from minority-owned and women-owned businesses.

''(10) How the eligible consortium will ensure that growth in technology, innovation, and advanced manufacturing sectors produces opportunity across the identified region and for economically disadvantaged, minority, underrepresented and rural populations, including, as appropriate, consideration of how the eligible consortium takes into account the relevant impact of existing regional status and plans or may affect regional goals for affordable housing availability, local and regional transportation, high-speed internet access, and primary and secondary education.

''(11) How well the region's education institutions align their activities, including research, educational programs, training, with the proposed areas of focus.

''(12) The likelihood efforts served by the consortium will be sustained once Federal support ends.

''(13) How the eligible consortium will, as appropriate—

''(A) enhance the economic, environmental, and energy security of the United States by promoting domestic development, manufacture, and deployment of innovative clean technologies and advanced manufacturing practices; and

''(B) support translational research, technology development, manufacturing innovation, and commercialization activities relating to clean technology.

''(i) COORDINATION AND COLLABORATION.—

''(1) COORDINATION WITH REGIONAL INNOVATION PROGRAM.—The Secretary shall ensure the activities under this section do not duplicate activities or efforts under section 27.

''(2) COORDINATION AMONG HUBS.—The Secretary shall ensure eligible consortia that receive a grant or cooperative agreement under this section coordinate and share best practices for regional economic development.

''(3) COORDINATION WITH PROGRAMS OF THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.—The Secretary shall coordinate the activities of regional technology and innovation hubs designated under this section, the Hollings Manufacturing Extension Partnership, and the Manufacturing USA Program, as the Secretary considers appropriate, to maintain the effectiveness of a manufacturing extension center or a Manufacturing USA institute.

''(4) COORDINATION WITH DEPARTMENT OF ENERGY PROGRAMS.—The Secretary shall, in collaboration with the Secretary of Energy, coordinate the activities and selection of regional technology and innovation hubs designated under this section, as the Secretaries consider appropriate, to maintain the effectiveness of activities at the Department of Energy and the National Laboratories.

''(5) INTERAGENCY COLLABORATION.—In designating regional technology and innovation hubs under subsection (d) and awarding grants or cooperative agreements under subsection (f), the Secretary—

''(A) shall collaborate with Federal departments and agencies whose missions contribute to the goals of the regional technology and innovation hub;

''(B) shall consult with the Director of the National Science Foundation for the purpose of ensuring that the regional technology and innovation hubs are aligned with relevant science, technology, and engineering expertise; and

''(C) may accept funds from other Federal agencies to support grants, cooperative agreements, and activities under this section.

''(j) PERFORMANCE MEASUREMENT, TRANSPARENCY, AND ACCOUNTABILITY.—

''(1) METRICS, STANDARDS, AND ASSESSMENT.—For each grant and cooperative agreement awarded under subsection (f) for a regional technology and innovation hub, the Secretary shall—

''(A) in consultation with the regional technology and innovation hub, develop metrics, which may include metrics relating to domestic job creation, patent awards, increases in research funding, business formation and expansion, and participation of individuals or communities historically underrepresented in STEM, to assess the effectiveness of the activities funded in making progress toward the purposes set forth under subsection (b)(1);

''(B) establish standards for the performance of the regional technology and innovation hub that are based on the metrics developed under subparagraph (A); and

''(C) prior to any award made under a subsequent performance period in subsection (f) and every 2 years thereafter until Federal financial assistance under this section for the regional technology and innovation hub is discontinued, conduct an assessment of the regional technology and innovation hub to confirm whether the performance of the regional technology and innovation hub is meeting the standards for performance established under subparagraph (B) of this paragraph.

''(2) FINAL REPORTS BY RECIPIENTS OF STRATEGY IMPLEMENTATION GRANTS AND COOPERATIVE AGREEMENTS.—

''(A) IN GENERAL.—The Secretary shall require each eligible consortium that receives a grant or cooperative agreement under subsection (f) for activities of a regional technology and innovation hub, as a condition of receipt of such grant or cooperative agreement, to submit to the Secretary, not later than 120 days after the last day of the term of the grant or cooperative agreement, a report on the activities of the regional technology and innovation hub supported by the grant or cooperative agreement.

''(B) CONTENTS OF REPORT.—Each report submitted by an eligible consortium under subparagraph (A) shall include the following:

''(i) A detailed description of the activities carried out by the regional technology and innovation hub using the grant or cooperative agreement described in subparagraph (A), including the following:

''(I) A description of each project the regional technology and innovation hub completed using such grant or cooperative agreement.

''(II) An explanation of how each project described in subclause (I) achieves a specific goal under this section in the region of the regional technology and innovation hub with respect to—

''(aa) the resiliency and sustainability of a supply chain;

''(bb) research, development, and deployment of a critical technology;

''(cc) workforce training and development;

''(dd) domestic job creation;

''(ee) entrepreneurship and company formation;

''(ff) commercialization;

''(gg) access to private capital; or

''(hh) participation of individuals or communities historically underrepresented in STEM.

''(ii) A discussion of any obstacles encountered by the regional technology and innovation hub in the implementation of the regional technology and innovation hub and how the regional technology and innovation hub overcame those obstacles.

''(iii) An evaluation of the success of the projects of the regional technology and innovation hub using the performance standards and measures established under paragraph (1), including an evaluation of the planning process and how the project contributes to carrying out the regional innovation strategy of the regional technology and innovation hub.

''(iv) The effectiveness of the regional technology and innovation hub in ensuring that, in the region of the regional technology and innovation hub, growth in technology and innovation sectors produces broadly shared opportunity across the region, including for economic disadvantaged and underrepresented populations and rural areas.

''(v) Information regarding such other matters as the Secretary may require.

''(3) INTERIM REPORTS BY RECIPIENTS OF GRANTS AND COOPERATIVE AGREEMENTS.—In addition to requiring submittal of final reports under paragraph (2)(A), the Secretary may require a regional technology and innovation hub described in such paragraph to submit to the Secretary such interim reports as the Secretary considers appropriate.

''(4) ANNUAL REPORTS TO CONGRESS.—Not less frequently than once each year, the Secretary shall submit to the appropriate committees of Congress an annual report on the results of the assessments conducted by the Secretary under paragraph (1)(C) during the period covered by the report.

''(k) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary—

''(1) $50,000,000 to award grants and cooperative agreements under subsection (e) for the period of fiscal years 2023 through 2027;

''(2) $2,950,000,000 to award grants and cooperative agreements under subsection (f) for the period of fiscal years 2023 and 2024; and

''(3) $7,000,000,000 to award grants and cooperative agreements under subsection (f) for the period of fiscal years 2025 through 2027.

''(l) ADMINISTRATION.—The Secretary may use funds made available to carry out this section for administrative costs under this section.

''SEC. 29. DISTRESSED AREA RECOMPETE PILOT PROGRAM.

''(a) IN GENERAL.—Within the program authorized under section 28, the Secretary is authorized to establish a pilot program, to be known as the 'Recompete Pilot Program', to provide grants to eligible recipients representing eligible areas or Tribal lands to alleviate persistent economic distress and support long-term comprehensive economic development and job creation in eligible areas.

''(b) STRATEGY DEVELOPMENT GRANTS AND COOPERATIVE AGREEMENTS.—Subject to available appropriations, the Secretary is authorized, on the application of an eligible recipient, to award up to one half of the number of grants under subsection (e) of section 28 to eligible recipients to develop a recompete plan and carry out related predevelopment activities.

''(c) STRATEGY IMPLEMENTATION GRANTS AND COOPERATIVE AGREEMENTS.—Subject to available appropriations and subsection (f) , the Secretary shall award, on the application of an eligible recipient, at least ten strategy implementation grants, in accordance with a recompete plan review and approved by the Secretary, to carry out coordinated and comprehensive economic development programs and activities in an eligible area, consistent with a recompete plan approved by the Secretary. Such activities may include—

''(1) workforce development activities of the kind described in section 28(f) or other job training and workforce outreach programs oriented to local employer needs, such as—

''(A) customized job training programs carried out by local community colleges and other training or educational organizations in partnership with local businesses;

''(B) workforce outreach programs located in, and targeted to, lower-income and underemployed neighborhoods; and

''(C) programs to embed job placement and training services in neighborhood institutions such as churches, housing projects, and community advocacy programs; and

''(D) job retention programs and activities, such as the provision of career coaches;

''(2) business and entrepreneur development activities of the kind described in section 28(f), technology development and maturation activities of the kind described in such section, or the provision of business advice and assistance to

small and medium-sized local businesses and entrepreneurs. Such advice and assistance may include—

''(A) manufacturing extension services;

''(B) small business development centers;

''(C) centers to help businesses bid for Federal procurement contracts;

''(D) entrepreneurial assistance programs that link entrepreneurs with available public and private resources;

''(E) legal advice and resources; and

''(F) assistance in accessing capital;

''(3) infrastructure related activities of the kind described in section 28(f) or other land and site development programs, such as brownfield redevelopment, research and technology parks, business incubators, business corridor development, and other infrastructure activities related to supporting job creation and employment for residents, subject to the requirements of section 28(f)(6); and

''(4) additional planning, predevelopment, technical assistance, and other administrative activities as may be necessary for the ongoing implementation, administration, and operation of the programs and activities carried out with a grant or cooperative agreement under this section, including but not limited to economic development planning and evaluation.

''(d) TERM.—

''(1) INITIAL PERFORMANCE PERIOD.—The term of an initial grant or cooperative agreement awarded under subsection (c) shall be for a period that the Secretary deems appropriate for the proposed activities but not less than 2 years.

''(2) SUBSEQUENT PERFORMANCE PERIOD.—The Secretary may renew a grant or cooperative agreement awarded under subsection (c) for such period, such amount, and such terms as the Secretary considers appropriate, if the Secretary determines that the recipient of an award under subsection (c) has made satisfactory progress towards metrics or benchmarking requirements established by the Secretary at time of award.

''(3) FLEXIBLE APPROACH.—In renewing a grant or cooperative agreement under subsection (c), the Secretary may approve new or additional uses of funds, consistent with the uses described in subsection (c), to meet changes in the needs of the region.

''(e) LIMITATIONS.—

''(1) LIMITATION ON ELIGIBLE AREAS.—An eligible area may not benefit from more than 1 grant or cooperative agreement described in subsection (b) and 1 grant or cooperative agreement described in subsection (c), provided that a renewal described in subsection (d)(2) shall not constitute an additional grant.

''(2) LIMITATION ON RECIPIENTS.—For purposes of the program under this section, an eligible recipient may not receive multiple grants described in subsection (c) on behalf of more than 1 eligible area.

''(f) AWARD AMOUNT.—

''(1) IN GENERAL.—In determining the amount of a grant that an eligible recipient may be awarded under subsection (c), the Secretary shall—

''(A) take into consideration the proposed activities and projected expenditures outlined in an approved recompete plan; and

''(B) award not more than the product obtained by multiplying—

''(i) the prime-age employment gap of the eligible area;

''(ii) the prime-age population of the eligible area; and

''(iii) either—

''(I) $70,585 for local labor markets; or

''(II) $53,600 for local communities.

''(2) MINIMUM AMOUNT.—The Secretary may not make an award that is less than $20,000,000 to an eligible recipient.

''(g) APPLICATIONS.—To be considered for a grant or cooperative agreement under—

''(1) subsection (b) of this section, an eligible recipient shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary determines to be appropriate; and

''(2) subsection (c) of this section, an eligible recipient shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary determines to be appropriate, including a recompete plan approved by the Secretary.

''(h) RELATION TO CERTAIN GRANT AWARDS.—The Secretary shall not require an eligible recipient to receive a grant or cooperative agreement under subsection (b) in order to receive a grant or cooperative agreement under subsection (c).

''(i) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary $1,000,000,000 to award grants and cooperative agreements under subsection (c) of this section, for the period of fiscal years 2022 through 2026.

''(j) DEFINITIONS.—In this section:

''(1) ELIGIBLE AREA.—The term 'eligible area' means either of the following:

''(A) A local labor market that—

''(i) has a prime-age employment gap equal to not less than 2.5 percent; and

''(ii) meets additional criteria as the Secretary may establish.

''(B) A local community that—

''(i) has a prime-age employment gap equal to not less than 5 percent;

''(ii) is not located within an eligible local labor market that meets the criteria described in subparagraph (A);

''(iii) has a median annual household income of not more than $75,000; and

''(iv) meets additional criteria as the Secretary may establish.

''(2) ELIGIBLE RECIPIENT.—The term 'eligible recipient' means a specified entity that has been authorized in a manner as determined by the Secretary to represent and act on behalf of an eligible area for the purposes of this section.

''(3) LOCAL LABOR MARKET.—The term 'local labor market' means any of the following areas that contains 1 or more specified entities described in subparagraphs (A) through (D) of paragraph (6):

''(A) A metropolitan statistical area or micropolitan statistical area, excluding any area described in subparagraph (C).

''(B) A commuting zone, excluding any areas described in subparagraphs (A) and (C).

''(C) The Tribal land with a Tribal prime-age population represented by a Tribal government.

''(4) LOCAL COMMUNITY.—The term 'local community' means the area served by a general-purpose unit of local government that is located within, but does not cover the entire area of, a local labor market that does not meet the criteria described in paragraph (1)(A).

''(5) PRIME-AGE EMPLOYMENT GAP.—

''(A) IN GENERAL.—The term 'prime-age employment gap' means the difference (expressed as a percentage) between—

''(i) the national 5-year average prime-age employment rate; and

''(ii) the 5-year average prime-age employment rate of the eligible area.

''(B) CALCULATION.—For the purposes of subparagraph (A), an individual is prime-age if such individual between the ages of 25 years and 54 years.

''(6) RECOMPETE PLAN.—The term 'recompete plan' means a comprehensive multiyear economic development plan that—

''(A) includes—

''(i) proposed programs and activities to be carried out with a grant awarded under subsection (c) to address the economic challenges of the eligible area in a comprehensive manner that promotes long-term, sustained economic growth, lasting job creation, per capita wage increases, and reduction in the prime-age employment gap of the eligible area;

''(ii) projected costs and annual expenditures and proposed disbursement schedule;

''(iii) the roles and responsibilities of specified entities that may receive grant funds awarded under subsection (c); and

''(iv) other information as the Secretary determines appropriate;

''(B) is submitted to the Secretary for approval for an eligible recipient to be considered for a grant described in subsection (c); and

''(C) may be modified over the term of the grant by the eligible recipient, subject to the approval of the Secretary or at the direction of the Secretary, if the Secretary determines benchmarking requirements are repeatedly not met or if other circumstances necessitate a modification.

''(7) SPECIFIED ENTITY.—The term 'specified entity' means—

''(A) a unit of local government;

''(B) the District of Columbia;

''(C) a territory of the United States;

''(D) a Tribal government;

''(E) political subdivision of a State or other entity, including a special-purpose entity engaged in economic development activities;

''(F) a public entity or nonprofit organization, acting in cooperation with the officials of a political subdivision of a State or other entity described in subparagraph (E);

''(G) an economic development district (as defined in section 3 of the Public Works and Economic Development Act of 1965 (42 U.S.C. 3122); and

''(H) a consortium of any of the specified entities described in this paragraph which serve or are contained within the same eligible area.

''(8) TRIBAL LAND.—The term 'Tribal land' means any land—

''(A) located within the boundaries of an Indian reservation, pueblo, or rancheria; or

''(B) not located within the boundaries of an Indian reservation, pueblo, or rancheria, the title to which is held—

''(i) in trust by the United States for the benefit of an Indian Tribe or an individual Indian;

''(ii) by an Indian Tribe or an individual Indian, subject to restriction against alienation under laws of the United States; or

''(iii) by a dependent Indian community.

''(9) TRIBAL PRIME-AGE POPULATION.—

''(A) IN GENERAL.—The term 'Tribal prime-age population' shall be equal to the sum obtained by adding—

''(i) the product obtained by multiplying—

''(I) the total number of individuals ages 25 through 54 residing on the Tribal land of the Tribal government; and

''(II) 0.65; and

''(ii) the product obtained by multiplying—

''(I) the total number of individuals ages 25 through 54 included on the membership roll of the Tribal government; and

''(II) 0.35

''(B) USE OF DATA.—A calculation under subparagraph (A) shall be determined based on data provided by the applicable Tribal government to the Department of the Treasury under the Coronavirus State and Local Fiscal Recovery Fund programs under title VI of the Social Security Act (42 U.S.C. 801 et seq.).''.

(b) INITIAL DESIGNATIONS AND AWARDS.—

(1) COMPETITION REQUIRED.—Not later than 1 year after the date of the enactment of this Act, subject to the availability of appropriations, the Secretary of Commerce shall commence a competition under subsection (d)(1) of section 28 of the Stevenson-Wydler Technology Innovation Act of 1980 (as added by this section).

(2) DESIGNATION AND AWARD.—Not later than 18 months after the date of the enactment of this Act, if the Secretary has received at least 1 application under subsection (g) of section 28 of the Stevenson-Wydler Technology Innovation Act of 1980 (as added by this section) from an eligible consortium which the Secretary considers suitable for designation under subsection (d)(1) of such section 28, the Secretary shall—

(A) designate at least 1 regional technology and innovation hub under subsection (d)(1) of such section 28; and

(B) award a grant or cooperative agreement under subsection (f)(1) of such section 28 to each regional technology and innovation hub designated pursuant to subparagraph (A) of this paragraph.

(c) DISTRESSED AREA DESIGNATION AND AWARD.—Not later than 18 months after the date of the enactment of this section, subject to the availability of appropriations, if the Secretary has received applications under section 29 of the Stevenson-Wydler Technology Innovation Act of 1980 (as added by this section) from an eligible recipient which the Secretary considers suitable for award under such section 29, the Secretary shall award grants or cooperative agreement under subsections (b) and (c) of such section 29 to one or more eligible recipients.

SEC. 10622. REGIONAL CLEAN ENERGY INNOVATION PROGRAM.

Subtitle C of title IX of the Energy Independence and Security Act of 2007 is amended by adding at the end the following:

"SEC. 936. REGIONAL CLEAN ENERGY INNOVATION PROGRAM.

''(a) DEFINITIONS.—In this section:

''(1) REGIONAL CLEAN ENERGY INNOVATION PARTNERSHIP.—The term 'regional clean energy innovation partnership' means a group of one or more persons, including a covered consortium, who perform a collection of activities that are coordinated by such covered consortium to carry out the purposes of the program under subsection (c) in a region of the United States.

''(2) COVERED CONSORTIUM.—The term 'covered consortium' means an individual or group of individuals in partnership with a government entity, including a State, territorial, local, or tribal government or unit of such government, and at least 2 or more of the following additional entities—

''(A) an institution of higher education or a consortium of institutions of higher education, including community colleges;

''(B) a workforce development program;

''(C) a private sector entity or group of entities, including a trade or industry association;

''(D) a nonprofit organization;

''(E) a community group or community-based organization;

''(F) a labor organization or joint labor-management organization;

''(G) a National Laboratory;

''(H) a venture development organization;

''(I) a community development financial institution or minority depository institution;

''(J) a worker cooperative membership association or state or local employee ownership or cooperative development center;

''(K) an organization focused on clean energy technology innovation or entrepreneurship;

''(L) a business or clean energy accelerator or incubator;

''(M) an economic development organization;

''(N) a manufacturing facility or organization;

''(O) a multi-institutional collaboration; or

''(P) any other entity that the Secretary determines to be relevant.

''(3) PROGRAM.—The term 'program' means the Regional Clean Energy Innovation Program authorized in subsection (b).

''(4) INSTITUTION OF HIGHER EDUCATION.—The term 'institution of higher education' has the meaning given such term in section 101 or 102(a)(1)(B) of the Higher Education Act of 1965, as amended (20 U.S.C. 1001, 1002(a)(1)(B)).

''(5) NATIONAL LABORATORY.—The term 'National Laboratory' has the meaning given that term in section 2 of the Energy Policy Act of 2005 (42 2 U.S.C. 15801).

''(6) CLEAN ENERGY TECHNOLOGY.—The term 'clean energy technology' means a technology that significantly reduces energy use, increases energy efficiency, reduces greenhouse gas emissions, reduces emissions of other pollutants, or mitigates other negative environmental consequences of energy production, transmission or use.

''(7) COMMUNITY-BASED ORGANIZATION.—The term 'community-based organization' has the meaning given the term in section 3 of the Workforce Innovation and Opportunity Act (29 U.S.C. 3102).

''(8) COMMUNITY COLLEGE.—The term 'community college' means—

''(A) a public institution of higher education, including additional locations, at which the highest degree, or the predominantly awarded degree, is an associate degree; or

''(B) any Tribal college or university (as defined in section 316 of the Higher Education Act of 1965 (20 U.S.C. 1059c)).

''(9) WORKFORCE DEVELOPMENT PROGRAM.—The term 'workforce development program' has the meaning given the term in section 3 of the Workforce Innovation and Opportunity Act (29 U.S.C. 3102).

''(b) IN GENERAL.—The Secretary shall establish a Regional Clean Energy Innovation Program, a research, development, demonstration, and commercial application program designed to enhance the economic, environmental, and energy security of the United States and accelerate the pace of innovation of diverse clean energy technologies through the formation or support of regional clean energy innovation partnerships.

''(c) PURPOSES OF THE PROGRAM.—The purposes of the Program established under subsection (b) are to—

''(1) improve the competitiveness of United States' clean energy technology research, development, demonstration, and commercial application; and

''(2) support the development of tools and technologies best suited for use in diverse regions of the United States, including in rural, tribal, and low-income communities.

''(d) REGIONAL CLEAN ENERGY INNOVATION PARTNERSHIPS.—

''(1) IN GENERAL.—The Secretary shall competitively award grants to covered consortia to establish or support regional clean energy innovation partnerships that achieve the purposes of the Program in subsection (c).

''(2) PERMISSIBLE ACTIVITIES.—Grants awarded under this subsection shall be used for activities determined appropriate by the Secretary to achieve the purposes of the Program in subsection (c), including—

''(A) facilitating the commercial application of clean energy products, processes, and services, including through research, development, demonstration, or technology transfer;

''(B) planning among participants of a regional clean energy innovation partnership to improve the strategic and cost-effective coordination of the partnership;

''(C) improving stakeholder involvement in the development of goals and activities of a regional clean energy innovation partnership;

''(D) assessing different incentive mechanisms for clean energy development and commercial application in the region;

''(E) hosting events and conferences; and

''(F) establishing and updating roadmaps to measure progress on relevant goals, such as those relevant to metrics developed under subsection (g).

''(3) APPLICATIONS.—Each application submitted to the Secretary under paragraph (1) may include—

''(A) a list of members and roles of members of the covered consortia, as well as any other stakeholders supporting the activities of the regional clean energy innovation partnership;

''(B) an assessment of the relevant clean energy innovation assets needed in a region to achieve proposed outcomes, such as education and workforce development programs, research facilities, infrastructure or site development, access to capital, manufacturing capabilities, or other assets;

''(C) a description of proposed activities that the regional clean energy innovation partnership plans to undertake and how the proposed activities will achieve the purposes described in subsection (c);

''(D) a plan for attracting additional funds and identification of funding sources from non-Federal sources to deliver the proposed outcomes of the regional clean energy innovation partnership;

''(E) a plan for partnering and collaborating with community development financial institutions and minority depository institutions, labor organizations and community groups, worker cooperative membership associations, local and state employee ownership and cooperative development centers, and other local institutions in order to promote employee, community, and public ownership in the clean energy sector, and advance models of local economic development that build and retain wealth in the region;

''(F) a plan for sustaining activities of the regional clean energy innovation partnership after funds received under this program have been expended; and

''(G) a proposed budget, including financial contributions from non-Federal sources.

''(4) CONSIDERATIONS.—In selecting covered consortia for funding under the Program, the Secretary shall, to the maximum extent practicable—

''(A) give special consideration to applications from rural, tribal, and low-income communities; and

''(B) ensure that there is geographic diversity among the covered consortia selected to receive funding.

''(5) AWARD AMOUNT.—Grants given out under this Program shall be in an amount not greater than $10,000,000, with the total grant award in any year less than that in the previous year.

''(6) COST SHARE.—For grants that are disbursed over the course of three or more years, the Secretary shall require, as a condition of receipt of funds under this section, that a covered consortium provide not less than 50 percent of the funding for the activities of the regional clean energy partnership under this section for years 3, 4, and 5.

''(7) DURATION.—Each grant under paragraph shall be for a period of not longer than 5 years.

''(8) RENEWAL.—A grant awarded under this section may be renewed for a period of not more than 5 years, subject to a rigorous merit review based on the progress of a regional clean energy innovation partnership towards achieving the purposes of the program in subsection (c) and the metrics developed under subsection (g).

''(9) TERMINATION.—Consistent with the existing authorities of the Department, the Secretary may terminate grant funding under this subsection to covered consortia during the performance period if the Secretary determines that the regional clean energy innovation partnership is underperforming.

''(10) ADMINISTRATIVE COSTS.—The Secretary may allow a covered consortium that receives funds under this section to allocate a portion of the funding received to be used for administrative or indirect costs.

''(11) FUNDING.—The Secretary may accept funds from other Federal agencies to support funding and activities under this section.

''(e) PLANNING FUNDS.—The Secretary may competitively award grants in an amount no greater than $2,000,000 for a period not longer than 2 years to an entity consisting of a government entity, including a State, territorial, local, or tribal government or unit of such government or any entity listed under subsection (a)(2) to plan a regional clean energy innovation partnership or establish a covered consortium for the purpose of applying for funds under subsection (b).

''(f) INFORMATION SHARING.—As part of the program, the Secretary shall support the gathering, analysis, and dissemination of information on best practices for developing and operating successful regional clean energy innovation partnerships.

''(g) METRICS.—In evaluating a grant renewal under subsection (d)(8), the Secretary shall

work with program evaluation experts to develop and make publicly available metrics to assess the progress of a regional clean energy innovation partnership towards achieving the purposes of the program in subsection (c).

''(h) COORDINATION.—In carrying out the program, the Secretary shall coordinate with, and avoid unnecessary duplication of, the activities carried out under this section with the activities of other research entities of the Department or relevant programs at other Federal agencies.

''(i) CONFLICTS OF INTEREST.—In carrying out the program, the Secretary shall maintain conflict of interest procedures, consistent with the conflict of interest procedures of the Department.

''(j) EVALUATION BY COMPTROLLER GENERAL.—Not later than 3 years after the date of the enactment of the Research and Development, Competition, and Innovation Act, and again 3 years later, the Comptroller General shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate an evaluation on the operation of the program during the most recent 3-year period, including—

''(1) an assessment of the progress made towards achieving the purposes specified in subsection (c) based on the metrics developed under subsection (g);

''(2) the short-term and long-term metrics used to determine the success of the program under subsection (g), and any changes recommended to the metrics used;

''(3) the regional clean energy innovation partnerships established or supported by covered consortia that have received grants under subsection (d); and

''(4) any recommendations on how the program may be improved.

''(k) NATIONAL LABORATORIES.—In supporting technology transfer activities at the National Laboratories, the Secretary shall encourage partnerships with entities that are located in the same region or State as the National Laboratory.

''(l) SECURITY.—In carrying out the activities under this section, the Secretary shall ensure proper security controls are in place to protect sensitive information, as appropriate.

''(m) NO FUNDS FOR CONSTRUCTION.—No funds provided to the Department of Energy under this section shall be used for construction.

''(n) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out this section $50,000,000 for each of fiscal years 2023 through 2027.''.

Subtitle D—Research Security

SEC. 10631. REQUIREMENTS FOR FOREIGN TALENT RECRUITMENT PROGRAMS.

(a) PURPOSE.—The purpose of this subtitle is to direct actions to prohibit participation in any foreign talent recruitment program by personnel of Federal research agencies and to prohibit participation in a malign foreign talent recruitment program by covered individuals involved with research and development awards from those agencies.

(b) GUIDANCE.—Not later than 180 days after the date of the enactment of this Act, the Director of the Office of Science and Technology Policy, in coordination with the interagency working group established under section 1746 of the National Defense Authorization Act for Fiscal Year 2020 (42 U.S.C. 6601 note; Public Law 116–92), shall publish and widely distribute a uniform set of guidelines for Federal research agencies regarding foreign talent recruitment programs. Such policy guidelines shall—

(1) prohibit all personnel of each Federal research agency, including Federal employees, contract employees, independent contractors, individuals serving under the Intergovernmental Personnel Act of 1970 (42 U.S.C. 4701 et seq), Visiting Scientist, Engineering, and Educator appointments, and special government employees other than peer reviewers, from participating in a foreign talent recruitment program;

(2) as part of the requirements under section 223 of the William (Mac) Thornberry NDAA of Fiscal Year 2021 (10 U.S.C. 6605; Public Law 116–283), require covered individuals to disclose if such individuals are a party to a foreign talent recruitment program contract, agreement, or other arrangement;

(3) prohibit research and development awards from being made for any proposal in which a covered individual is participating in a malign foreign talent recruitment program; and

(4) to the extent practicable, require recipient institutions to prohibit covered individuals participating in malign foreign talent recruitment programs from working on projects supported by research and development awards.

(c) DEFINITION OF FOREIGN TALENT RECRUITMENT PROGRAMS.—As part of the guidance under subsection (b), the Director of the Office of Science and Technology Policy shall define and describe the characteristics of a foreign talent recruitment program.

(d) IMPLEMENTATION.—Not later than one year after the date of the enactment of this Act, each Federal research agency shall issue a policy utilizing the guidelines under subsection (b).

(e) CONSISTENCY.—The Director of the Office of Science and Technology Policy shall ensure that the policies issued by the Federal research agencies under subsection (d) are consistent to the greatest extent practicable.

SEC. 10632. MALIGN FOREIGN TALENT RECRUITMENT PROGRAM PROHIBITION.

(a) IN GENERAL.—Not later than 24 months after the date of enactment of this Act, each Federal research agency shall establish a policy that, as part of a proposal for a research and development award from the agency—

(1) each covered individual listed in such proposal certify that each such individual is not a party to a malign foreign talent recruitment program in the proposal submission of each such individual and annually thereafter for the duration of the award; and

(2) each institution of higher education or other organization applying for such an award certify that each covered individual who is employed by such institution of higher education or other organization has been made aware of the requirements under this section and complied with the requirement under paragraph (1).

(b) STAKEHOLDER INPUT.—In establishing a policy under subsection (a), Federal research agencies shall publish a description of the proposed policy in the Federal Register and provide an opportunity for submission of public comment for a period of not more than 60 days.

(c) COMPLIANCE WITH EXISTING LAW.—Each Federal research agency and recipient shall comply with title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et seq.) in the establishment of policies pursuant to under subsection (a).

(d) INTERNATIONAL COLLABORATION.—Each policy developed under subsection (a) shall not prohibit, unless such activities are funded, organized, or managed by an academic institution or a foreign talent recruitment program on the lists developed under paragraphs (8) and (9) of section 1286(c) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 4001 note; Public Law 115–232)—

(1) making scholarly presentations and publishing written materials regarding scientific information not otherwise controlled under current law;

(2) participation in international conferences or other international exchanges, research projects or programs that involve open and reciprocal exchange of scientific information, and which are aimed at advancing international scientific understanding and not otherwise controlled under current law;

(3) advising a foreign student enrolled at an institution of higher education or writing a recommendation for such a student, at such student's request; and

(4) other international activities determined appropriate by the Federal research agency head or designee.

(e) LIMITATION.—The certifications required under subsection (a) shall not apply retroactively to research and development awards made or applied for prior to the establishment of the policy by the Federal research agency.

(f) TRAINING.—Each Federal research agency shall ensure that, as a requirement of an award from each such agency, recipient institutions provide training on the risks of malign foreign talent recruitment programs to covered individuals employed at such institutions, including those individuals who are participating in activities described in subsection (d).

SEC. 10633. REVIEW OF CONTRACTS AND AGREEMENTS.

(a) IN GENERAL.—In addition to existing authorities for preventing waste, fraud, abuse, and mismanagement of Federal funds, each Federal research agency shall have the authority to—

(1) require, upon request, the submission to such agency, by an institution of higher education or other organization applying for a research and development award, of supporting documentation, including copies of contracts, grants, or any other agreement specific to foreign appointments, employment with a foreign institution, participation in a foreign talent recruitment program and other information reported as current and pending support for all covered individuals in a research and development award application;

(2) require such institution of higher education or other organization to review any documents requested under paragraph (1) for compliance with the Federal research agency's award terms and conditions, including guidance on conflicts of interest and conflicts of commitment; and

(3) upon receipt and review of the information provided under paragraph (1) and in consultation with the institution of higher education or other organization submitting such information, initiate the substitution or removal of a covered individual from a research and development award, reduce the award funding amount, or suspend or terminate the award if the agency head determines such contracts, grants, or agreements include obligations that—

(A) interfere with the capacity for agency-supported activities to be carried out; or

(B) create duplication with agency-supported activities.

(b) LIMITATIONS.—In exercising the authorities under subsection (a), each Federal research agency shall—

(1) take necessary steps, as practicable, to protect the privacy of all covered individuals and other parties specified in the documentation submitted under paragraph (1) of such subsection;

(2) endeavor to provide justification for requests for supporting documentation made under such paragraph;

(3) require that allegations be proven by a preponderance of evidence; and

(4) as practicable, afford subjects an opportunity to provide comments and rebuttal and an opportunity to appeal before final administrative action is taken.

SEC. 10634. RESEARCH SECURITY TRAINING REQUIREMENT FOR FEDERAL RESEARCH AWARD PERSONNEL.

(a) ANNUAL TRAINING REQUIREMENT.—

(1) IN GENERAL.—Not later than 12 months after the date of the enactment of this Act, each Federal research agency shall establish a requirement that, as part of an application for a research and development award from the agency—

(A) each covered individual listed on the application for a research and development award certify that each such individual has completed

within one year of such application research security training that meets the guidelines developed under subsection (b); and

(B) each institution of higher education or other organization applying for such an award certify that each covered individual who is employed by such institution or organization and listed on the application has completed such training.

(2) CONSISTENCY.—The Director of the Office of Science and Technology Policy shall ensure that the training requirements established by Federal research agencies pursuant to paragraph (1) are consistent.

(b) TRAINING GUIDELINES.—The Director of the Office of Science and Technology Policy, acting through the National Science and Technology Council and in accordance with the authority provided under section 1746(a) of the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116–92; 42 U.S.C. 6601 note), shall, taking into consideration stakeholder input, develop guidelines for institutions of higher education and other organizations receiving Federal research and development funds to use in developing their own training programs to address the unique needs, challenges, and risk profiles of such institutions and other organizations, including adoption of security training modules developed under subsection (c), to ensure compliance with National Security Presidential Memorandum–33 (relating to strengthening protections of the United States Government-supported research and development against foreign government interference and exploitation) or any successor documents.

(c) SECURITY TRAINING MODULES.—

(1) IN GENERAL.—Not later than 90 days after the date of the enactment of this Act, the Director of the Office of Science and Technology Policy, in coordination with the Director of the National Science Foundation, the Director of the National Institutes of Health, the Secretary of Energy, and the Secretary of Defense, and in consultation with the heads of relevant Federal research agencies, shall enter into an agreement or contract with a qualified entity for the development of online research security training modules for the research community and participants in the United States research and development enterprise to ensure compliance with National Security Presidential Memorandum–33 or successor documents, including modules—

(A) focused on cybersecurity, international collaboration and international travel, foreign interference, and rules for proper use of funds, disclosure, conflict of commitment, and conflict of interest; and

(B) tailored to the unique needs of—

(i) covered individuals;

(ii) undergraduate students, graduate students, and postdoctoral researchers; and

(iii) applicants for awards under the SBIR and STTR programs (as such terms are defined in section 9(e) of the Small Business Act (15 U.S.C. 638(e)).

(2) STAKEHOLDER INPUT.—Prior to entering into the agreement under paragraph (1), the Director of the Office of Science and Technology Policy shall seek input from academic, private sector, intelligence, and law enforcement stakeholders regarding the scope and content of security training modules, including the diversity of needs across institutions of higher education and other recipients of different sizes and types, and recommendations for minimizing administrative burden on recipients and researchers.

(3) DEVELOPMENT.—The Director of the Office of Science and Technology Policy shall ensure that the entity referred to in paragraph (1)—

(A) develops security training modules that can be adapted and utilized across Federal research agencies; and

(B) develops and implements a plan for regularly updating such modules as needed.

SEC. 10635. RESEARCH FUNDS ACCOUNTING.

(a) STUDY PERIOD DEFINED.—In this section the term ''study period'' means the 5-year period ending on the date of the enactment of this Act.

(b) STUDY.—The Comptroller General of the United States shall conduct a study on Federal funding made available to foreign entities of concern for research, during the study period.

(c) MATTERS TO BE INCLUDED.—The study conducted under subsection (b) shall include, to the extent practicable with respect to the study period, an assessment of—

(1) the total amount of Federal funding made available to foreign entities of concern for research;

(2) the total number and types of foreign entities of concern to which such funding was made available;

(3) the requirements relating to the awarding, tracking, and monitoring of such funding;

(4) any other data available with respect to Federal funding made available to foreign entities of concern for research; and

(5) such other matters as the Comptroller General of the United States determines appropriate.

(d) BRIEFING ON AVAILABLE DATA.—Not later than 120 days after the date of the enactment of this Act, the Comptroller General of the United States shall brief the Committee on Commerce, Science, and Transportation, the Committee on Health, Education, Labor, and Pensions, and the Committee on Foreign Relations of the Senate and the Committee on Science, Space, and Technology, the Committee on Energy and Commerce, and the Committee on Foreign Affairs of the House of Representatives on the study conducted under subsection (b) and the data that is available with respect to Federal funding made available to foreign entities of concern for research.

(e) REPORT.—The Comptroller General of the United States shall submit to the congressional committees specified in subsection (d), by a date agreed upon by the Comptroller General and the committees on the date of the briefing under such subsection, a report on the findings of the study conducted under subsection (b).

SEC. 10636. PERSON OR ENTITY OF CONCERN PROHIBITION.

No person published on the list under section 1237(b) of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 (Public Law 105–261; 50 U.S.C. 1701 note) or entity identified under section 1260h of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (10 U.S.C. 113 note; Public Law 116–283) may receive or participate in any grant, award, program, support, or other activity under—

(1) the Directorate established in subtitle G of title III of this division;

(2) section 28(b)(1) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3701 et seq.), as added by section 10621; or

(3) the Manufacturing USA Program, as improved and expanded under subtitle E of title II of this division.

SEC. 10637. NONDISCRIMINATION.

In carrying out requirements under this subtitle, each Federal research agency shall ensure that policies and activities developed and implemented pursuant to this subtitle are carried out in a manner that does not target, stigmatize, or discriminate against individuals on the basis of race, ethnicity, or national origin, consistent with title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et seq.).

SEC. 10638. DEFINITIONS.

In this subtitle:

(1) COVERED INDIVIDUAL.—The term ''covered individual'' means an individual who—

(A) contributes in a substantive, meaningful way to the scientific development or execution of a research and development project proposed to be carried out with a research and development award from a Federal research agency; and

(B) is designated as a covered individual by the Federal research agency concerned.

(2) FOREIGN COUNTRY OF CONCERN.—The term ''foreign country of concern'' means the People's Republic of China, the Democratic People's Republic of Korea, the Russian Federation, the Islamic Republic of Iran, or any other country determined to be a country of concern by the Secretary of State.

(3) FOREIGN ENTITY OF CONCERN.—The term ''foreign entity of concern'' means a foreign entity that is—

(A) designated as a foreign terrorist organization by the Secretary of State under section 219(a) of the Immigration and Nationality Act (8 U.S.C. 1189(a));

(B) included on the list of specially designated nationals and blocked persons maintained by the Office of Foreign Assets Control of the Department of the Treasury (commonly known as the SDN list);

(C) owned by, controlled by, or subject to the jurisdiction or direction of a government of a foreign country that is a covered nation (as such term is defined in section 4872 of title 10, United States Code);

(D) alleged by the Attorney General to have been involved in activities for which a conviction was obtained under—

(i) chapter 37 of title 18, United States Code (commonly known as the Espionage Act);

(ii) section 951 or 1030 of title 18, United States Code;

(iii) chapter 90 of title 18, United States Code (commonly known as the Economic Espionage Act of 1996);

(iv) the Arms Export Control Act (22 U.S.C. 2751 et seq.);

(v) section 224, 225, 226, 227, or 236 of the Atomic Energy Act of 1954 (42 U.S.C. 2274, 2275, 2276, 2277, and 2284);

(vi) the Export Control Reform Act of 2018 (50 U.S.C. 4801 et seq.); or

(vii) the International Emergency Economic Powers Act (50 U.S.C. 1701 et seq.); or

(E) determined by the Secretary of Commerce, in consultation with the Secretary of Defense and the Director of National Intelligence, to be engaged in unauthorized conduct that is detrimental to the national security or foreign policy of the United States.

(4) MALIGN FOREIGN TALENT RECRUITMENT PROGRAM.—The term ''malign foreign talent recruitment program'' means—

(A) any program, position, or activity that includes compensation in the form of cash, in-kind compensation, including research funding, promised future compensation, complimentary foreign travel, things of non de minimis value, honorific titles, career advancement opportunities, or other types of remuneration or consideration directly provided by a foreign country at any level (national, provincial, or local) or their designee, or an entity based in, funded by, or affiliated with a foreign country, whether or not directly sponsored by the foreign country, to the targeted individual, whether directly or indirectly stated in the arrangement, contract, or other documentation at issue, in exchange for the individual—

(i) engaging in the unauthorized transfer of intellectual property, materials, data products, or other nonpublic information owned by a United States entity or developed with a Federal research and development award to the government of a foreign country or an entity based in, funded by, or affiliated with a foreign country regardless of whether that government or entity provided support for the development of the intellectual property, materials, or data products;

(ii) being required to recruit trainees or researchers to enroll in such program, position, or activity;

(iii) establishing a laboratory or company, accepting a faculty position, or undertaking any other employment or appointment in a foreign country or with an entity based in, funded by, or affiliated with a foreign country if such activities are in violation of the standard terms and conditions of a Federal research and development award;

(iv) being unable to terminate the foreign talent recruitment program contract or agreement except in extraordinary circumstances;

(v) through funding or effort related to the foreign talent recruitment program, being limited in the capacity to carry out a research and development award or required to engage in work that would result in substantial overlap or duplication with a Federal research and development award;

(vi) being required to apply for and successfully receive funding from the sponsoring foreign government's funding agencies with the sponsoring foreign organization as the recipient;

(vii) being required to omit acknowledgment of the recipient institution with which the individual is affiliated, or the Federal research agency sponsoring the research and development award, contrary to the institutional policies or standard terms and conditions of the Federal research and development award;

(viii) being required to not disclose to the Federal research agency or employing institution the participation of such individual in such program, position, or activity; or

(ix) having a conflict of interest or conflict of commitment contrary to the standard terms and conditions of the Federal research and development award; and

(B) a program that is sponsored by—

(i) a foreign country of concern or an entity based in a foreign country of concern, whether or not directly sponsored by the foreign country of concern;

(ii) an academic institution on the list developed under section 1286(c)(8) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; Public Law 115–232); or

(iii) a foreign talent recruitment program on the list developed under section 1286(c)(9) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; Public Law 115–232).

Subtitle E—Coastal and Ocean Acidification Research and Innovation

SEC. 10641. SHORT TITLE.

This subtitle may be cited as the ''Coastal and Ocean Acidification Research and Innovation Act of 2021''.

SEC. 10642. PURPOSES.

(a) IN GENERAL.—Section 12402(a) of the Federal Ocean Acidification Research and Monitoring Act of 2009 (33 U.S.C. 3701(a)) is amended—

(1) in paragraph (1)—

(A) in the matter preceding subparagraph (A), by striking ''development and coordination'' and inserting ''development coordination and implementation'';

(B) in subparagraph (A), by striking ''acidification on marine organisms'' and inserting ''acidification and coastal acidification on marine organisms''; and

(C) in subparagraph (B), by striking ''establish'' and all that follows through the semicolon and inserting ''maintain and advise an interagency research, monitoring, and public outreach program on ocean acidification and coastal acidification;'';

(2) in paragraph (2), by striking ''establishment'' and inserting ''maintenance'';

(3) in paragraph (3), by inserting ''and coastal acidification'' after ''ocean acidification''; and

(4) in paragraph (4), by striking ''techniques for'' and all that follows through the period and inserting ''mitigating the impacts of ocean and coastal acidification and related co-stressors on marine ecosystems.''.

(b) TECHNICAL AND CONFORMING AMENDMENT.—Section 12402 of the Federal Ocean Acidification Research and Monitoring Act of 2009 (33 U.S.C. 3701(a)) is amended by striking ''(a) PURPOSES.—''.

SEC. 10643. DEFINITIONS.

Section 12403 of the Federal Ocean Acidification Research and Monitoring Act of 2009 (33 U.S.C. 3702) is amended—

(1) in paragraph (1), by striking ''of the Earth's oceans'' and all that follows before the period at the end and inserting ''and changes in the water chemistry of the Earth's oceans, coastal estuaries, marine waterways, and Great Lakes caused by carbon dioxide from the atmosphere and the breakdown of organic matter'';

(2) in paragraph (3), by striking ''Joint Subcommittee on Ocean Science and Technology of the National Science and Technology Council'' and inserting ''National Science and Technology Council Subcommittee on Ocean Science and Technology'';

(3) by redesignating paragraphs (1), (2), and (3) as paragraphs (2), (3), and (4), respectively;

(4) by inserting before paragraph (2), as so redesignated, the following:

''(1) COASTAL ACIDIFICATION.—The term 'coastal acidification' means the decrease in pH and changes in the water chemistry of coastal oceans, estuaries, and Great Lakes from atmospheric pollution, freshwater inputs, and excess nutrient run-off from land.''; and

(5) by adding at the end the following:

''(5) STATE.—The term 'State' means each State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, the Virgin Islands of the United States, and any other territory or possession of the United States.''.

SEC. 10644. INTERAGENCY WORKING GROUP.

Section 12404 of the Federal Ocean Acidification Research and Monitoring Act of 2009 (33 U.S.C. 3703) is amended—

*(1) in the heading, by striking ''**SUBCOMMITTEE**'' and inserting ''**WORKING GROUP**'';*

(2) in subsection (a)—

(A) in paragraph (1), by striking ''Joint Subcommittee on Ocean Science and Technology of the National Science and Technology Council shall coordinate Federal activities on ocean acidification and establish'' and insert ''Subcommittee shall coordinate Federal activities on ocean and coastal acidification and establish and maintain'';

(B) in paragraph (2), by striking ''Wildlife Service,'' and inserting ''Wildlife Service, the Bureau of Ocean Energy Management, the Environmental Protection Agency, the Department of Agriculture, the Department of State, the Department of Energy, the Department of the Navy, the National Park Service, the Bureau of Indian Affairs, the National Institute of Standards and Technology, the Smithsonian Institution,''; and

(C) in paragraph (3), in the heading, by striking ''CHAIRMAN'' and inserting ''CHAIR'';

(3) in subsection (b)—

(A) in paragraph (2)—

(i) in subparagraph (A), by inserting ''and coastal acidification'' after ''ocean acidification''; and

(ii) in subparagraph (B), by inserting ''and coastal acidification'' after ''ocean acidification'';

(B) in paragraph (4), by striking ''; and'' and inserting a semicolon; and

(C) in paragraph (5)—

(i) by inserting '', and contribute to as appropriate,'' after ''designate'';

(ii) by striking ''developed'' and inserting ''and coastal acidification developed''; and

(iii) by striking the period at the end and inserting ''and coastal acidification; and''.

(4) in subsection (c)—

(A) in paragraph (2)—

(i) by inserting ''until 2032'' after ''every 2 years thereafter'';

(ii) by inserting '', and to the Office of Management and Budget,'' after ''House of Representatives''; and

(iii) in subparagraph (B), by striking ''the interagency research'' and inserting ''interagency strategic research'';

(B) in paragraph (3), by inserting ''until 2031'' after ''at least once every 5 years''; and

(C) in paragraph (4), by inserting ''until 2032'' after ''and every 6 years thereafter'';

(5) by redesignating subsection (c) as subsection (e); and

(6) by inserting after subsection (b) the following:

''(c) ADVISORY BOARD.—

''(1) ESTABLISHMENT.—The Chair of the Subcommittee shall establish an Ocean Acidification Advisory Board.

''(2) DUTIES.—The Advisory Board shall—

''(A) maintain a process for reviewing and making recommendations to the Subcommittee on—

''(i) the biennial report specified in subsection (d)(2); and

''(ii) the strategic research plan in subsection (d)(3);

''(B) provide ongoing advice to the Subcommittee and the interagency working group on matters related to Federal activities on ocean and coastal acidification, including impacts and mitigation of ocean and coastal acidification; and

''(C) advise the Subcommittee and the interagency working group on—

''(i) efforts to coordinate research and monitoring activities related to ocean acidification and coastal acidification; and

''(ii) the best practices for the standards developed for data archiving under section 12406(d).

''(3) MEMBERSHIP.—The Advisory Board shall consist of 25 members as follows:

''(A) Two representatives of the shellfish, lobster, or crab industry.

''(B) One representative of the finfish industry.

''(C) One representative of seafood processors.

''(D) Three representatives from academia, including both natural and social sciences.

''(E) One representative of recreational fishing.

''(F) One representative of a relevant nongovernmental organization.

''(G) Six representatives from relevant State and local governments with policy or regulatory authorities related to ocean acidification and coastal acidification.

''(H) One representative from the Alaska Ocean Acidification Network or a subsequent entity that represents the same geographical region and has a similar purpose.

''(I) One representative from the California Current Acidification Network or a subsequent entity that represents the same geographical region and has a similar purpose.

''(J) One representative from the Northeast Coastal Acidification Network or a subsequent entity that represents the same geographical region and has a similar purpose.

''(K) One representative from the Southeast Coastal Acidification Network or a subsequent entity that represents the same geographical region and has a similar purpose.

''(L) One representative from the Gulf of Mexico Coastal Acidification Network or a subsequent entity that represents the same geographical region and has a similar purpose.

''(M) One representative from the Mid-Atlantic Coastal Acidification Network or a subsequent entity that represents the same geographical region and has a similar purpose.

''(N) One representative from the Pacific Islands Ocean Observing System or a subsequent entity that represents the island territories and possessions of the United States in the Pacific Ocean, and the State of Hawaii and has a similar purpose.

''(O) One representative from the Caribbean Regional Association for Coastal Ocean Observing or a subsequent entity that represents Puerto Rico and the United States Virgin Islands and has a similar purpose.

''(P) One representative from the National Oceanic and Atmospheric Administration Olympic Coast Ocean Acidification Sentinel Site or a subsequent entity that represents the same geographical representation.

''(Q) One representative from the National Oceanic and Atmospheric Administration shall

serve as an ex-officio member of the Advisory Board without a vote.

''(4) APPOINTMENT OF MEMBERS.—The Chair of the Subcommittee shall—

''(A) appoint members to the Advisory Board (taking into account the geographical interests of each individual to be appointed as a member of the Advisory Board to ensure that an appropriate balance of geographical interests are represented by the members of the Advisory Board) who—

''(i) represent the interest group for which each seat is designated;

''(ii) demonstrate expertise on ocean acidification or coastal acidification and its scientific, economic, industry, cultural, and community impacts; and

''(iii) have a record of distinguished service with respect to ocean acidification or coastal acidification, and such impacts;

''(B) give consideration to nominations and recommendations from the members of the interagency working group and the public for such appointments; and

''(C) ensure that an appropriate balance of scientific, industry, State and local resource managers, and geographical interests are represented by the members of the Advisory Board.

''(5) TERM OF MEMBERSHIP.—Each member of the Advisory Board—

''(A) shall be appointed for a 5-year term; and

''(B) may be appointed to no more than two terms.

''(6) CHAIR.—The Chair of the Subcommittee shall appoint one member of the Advisory Board to serve as the Chair of the Advisory Board.

''(7) MEETINGS.—Not less than once each calendar year, the Advisory Board shall meet at such times and places as may be designated by the Chair of the Advisory Board, in consultation with the Chair of the Subcommittee and the Chair of the interagency working group.

''(8) BRIEFING.—The Chair of the Advisory Board shall brief the Subcommittee and the interagency working group on the progress of the Advisory Board as necessary or at the request of the Subcommittee.

''(9) TRIBAL GOVERNMENT ENGAGEMENT AND COORDINATION.—

''(A) IN GENERAL.—The Advisory Board shall maintain mechanisms for coordination, and engagement with Tribal governments.

''(i) RULE OF CONSTRUCTION.—Nothing in subparagraph (A) may be construed as affecting any requirement to consult with Indian Tribes under Executive Order 13175 (25 U.S.C. 5301 note; relating to consultation and coordination with Tribal governments) or any other applicable law or policy.

''(10) FEDERAL ADVISORY COMMITTEE ACT.—Section 14 of the Federal Advisory Committee Act shall not apply to the Advisory Board for 10 years from the date of enactment of this Act.

''(d) PRIZE COMPETITIONS.—

''(1) IN GENERAL.—Any Federal agency with a representative serving on the interagency working group established under this section may, either individually or in cooperation with one or more agencies, carry out a program to award prizes competitively under section 24 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3719). An agency seeking to carry out such a program shall carry out such program in coordination with the chair of such interagency working group.

''(2) PURPOSES.—Any prize competition carried out under this subsection shall be for the purpose of stimulating innovation to advance our Nation's ability to understand, research, or monitor ocean acidification or its impacts, or to develop management or adaptation options for responding to ocean and coastal acidification.

''(3) PRIORITY PROGRAMS.—Priority shall be given to establishing programs under this section that address communities, environments, or industries that are in distress due to the impacts of ocean and coastal acidification.''.

SEC. 10645. STRATEGIC RESEARCH PLAN.

Section 12405 of the Federal Ocean Acidification Research and Monitoring Act of 2009 (33 U.S.C. 3704) is amended—

(1) in subsection (a)—

(A) by striking ''acidification'' each place it appears and inserting ''acidification and coastal acidification'';

(B) in the first sentence—

(i) by inserting '', and not later than every 5 years following the publication of each subsequent strategic research plan until 2035'' after ''the date of enactment of this Act'';

(ii) by inserting ''address the socioeconomic impacts of ocean acidification and coastal acidification and to'' after ''mitigation strategies to''; and

(iii) by striking ''marine ecosystems'' each place it appears and inserting ''ecosystems''; and

(C) in the second sentence, by striking ''National Academy of Sciences in the review of the plan required under subsection (d)'', and inserting ''Advisory Board established in section 12404(c)'';

(2) in subsection (b)—

(A) in paragraph (1), by inserting ''and social sciences'' after ''among the ocean sciences'';

(B) in paragraph (2)—

(i) in subparagraph (B)—

(I) by striking ''improve the ability to assess the'' and inserting ''assess the short-term and long-term''; and

(II) by striking ''; and'' at the end and inserting a semicolon;

(ii) by amending subparagraph (C) to read as follows:

''(C) provide information for the development of adaptation and mitigation strategies to address—

''(i) socioeconomic impacts of ocean acidification and coastal acidification;

''(ii) conservation of marine organisms and ecosystems;

''(iii) assessment of the effectiveness of such adaptation and mitigation strategies; and''; and

(iii) by adding at the end the following new subparagraph:

''(D) improve research on—

''(i) ocean acidification and coastal acidification;

''(ii) the interactions between and effects of ocean and coastal acidification and multiple combined stressors including changes in water chemistry, changes in sediment delivery, hypoxia, and harmful algal blooms, on ocean acidification and coastal acidification; and

''(iii) the effect or effects of clauses (i) and (ii) on marine resources and ecosystems;'';

(C) in paragraph (3)—

(i) in subparagraph (F), by striking ''database development'' and inserting ''data management'';

(ii) in subparagraph (H) by striking ''and'' at the end; and

(iii) by adding at the end the following new subparagraphs:

''(J) assessment of adaptation and mitigation strategies; and

''(K) education and outreach activities;'';

(D) in paragraph (4), by striking ''set forth'' and inserting ''ensure an appropriate balance of contribution in establishing'';

(E) in paragraph (5), by striking ''reports'' and inserting ''the best available peer-reviewed scientific reports'';

(F) in paragraph (6)—

(i) by inserting ''and coastal acidification'' after ''ocean acidification''; and

(ii) by striking ''of the United States'' and inserting ''within the United States'';

(G) in paragraph (8)—

(i) by inserting ''and coastal acidification'' after ''ocean acidification'' each place it appears;

(ii) by striking ''its'' and inserting ''their''; and

(iii) by striking ''; and'' at the end and inserting a semicolon;

(H) in paragraph (9), by striking ''and'' at the end

(I) in paragraph (10), by striking the period at the end and inserting a semicolon; and

(J) by adding at the end the following:

''(11) describe monitoring needs necessary to support potentially affected industry members, coastal stakeholders, fishery management councils and commissions, Tribal governments, non-Federal resource managers, and scientific experts on decision-making and adaptation related to ocean acidification and coastal acidification; and

''(12) describe the extent to which the Subcommittee incorporated feedback from the Advisory Board established in section 12404(c).'';

(3) in subsection (c)—

(A) in paragraph (1)(C), by striking ''surface'';

(B) in paragraph (2), by inserting ''and coastal acidification'' after ''ocean acidification'' each place it appears;

(C) in paragraph (3)—

(i) by striking ''input, and'' and inserting ''inputs,'';

(ii) by inserting '', marine food webs,'' after ''marine ecosystems''; and

(iii) by inserting '', and modeling that supports fisheries management'' after ''marine organisms'';

(D) in paragraph (5), by inserting ''and coastal acidification'' after ''ocean acidification''; and

(E) by adding at the end the following new paragraph:

''(8) Research to understand related and cumulative stressors and other biogeochemical processes occurring in conjunction with ocean acidification and coastal acidification.''; and

(4) by striking subsections (d) and (e) and inserting the following:

''(d) PUBLICATION.—Concurrent with the submission of the plan to Congress, the Subcommittee shall publish the plan on a public website.''.

SEC. 10646. NOAA OCEAN ACIDIFICATION ACTIVITIES.

Section 12406 of the Federal Ocean Acidification Research and Monitoring Act of 2009 (33 U.S.C. 3705) is amended—

(1) in subsection (a)—

(A) in the matter preceding paragraph (1), by inserting ''coordination,'' after ''research, monitoring,'';

(B) in paragraph (1)—

(i) in subparagraph (B), by inserting ''including leveraging, as appropriate, the Integrated Ocean Observing System and the ocean observing assets of other Federal, State, and Tribal agencies,'' after ''ocean observing assets,'';

(ii) by redesignating subparagraphs (C), (D), (E), and (F) as subparagraphs (E), (G), (H), and (I), respectively;

(iii) by inserting after subparagraph (B) the following new subparagraphs:

''(C) prioritization of the location of monitoring instruments, assets, and projects to maximize the efficiency of resources and agency and department missions;

''(D) an optimization of understanding of socioeconomic impacts and ecosystem health''.

(iv) in subparagraph (E), as so redesignated, by striking ''adaptation'' and inserting ''adaptation and mitigation'';

(v) by inserting after subparagraph (E), as so redesignated, the following new subparagraph:

''(F) technical assistance to socioeconomically vulnerable States, local governments, Tribal governments, communities, and industries impacted by ocean and coastal acidification to support their development of ocean and coastal acidification mitigation strategies;''.

(vi) in subparagraph (H), as so redesignated—

(I) by striking ''its impacts'' and inserting ''their respective impacts'';

(II) by striking ''and'' at the end;

(vii) in subparagraph (I), as so redesignated—

(I) by striking ''monitoring and impacts research'' and inserting ''research, monitoring, and adaptation and mitigation strategies''; and

(II) by striking the period at the end and inserting a semicolon; and

(viii) by adding at the end the following new subparagraphs:

''(J) research to improve understanding of—

''(i) the impact of ocean acidification and coastal acidification; and

''(ii) how multiple environmental stressors may contribute to and exacerbate ocean and coastal acidification on living marine resources and coastal ecosystems; and

''(K) research to support the development of adaptation and mitigation strategies to address the socioeconomic impacts of ocean and coastal acidification on coastal communities;'';

(C) in paragraph (2), by striking ''critical research projects that explore'' and inserting ''critical research, education, and outreach projects that explore and communicate''; and

(D) in paragraphs (1) and (2), by striking ''acidification'' each place it appears and inserting ''acidification and coastal acidification''; and

(2) by adding at the end the following new subsections:

''(c) RELATIONSHIP TO INTERAGENCY WORKING GROUP.—The National Oceanic and Atmospheric Administration shall serve as the lead Federal agency responsible for coordinating the Federal response to ocean and coastal acidification. The Administration may enter into Memoranda of Understanding to—

''(1) coordinate monitoring and research efforts among Federal agencies in cooperation with State, local, and Tribal governments and international partners; this may include analysis and synthesis of the results of monitoring and research;

''(2) maintain an Ocean Acidification Information Exchange described under section 12404(b)(5) to allow for information to be electronically accessible, including information—

''(A) on ocean acidification developed through or used by the ocean acidification program described under subsection (a); or

''(B) that would be useful to State governments, local governments, Tribal governments, resource managers, policymakers, researchers, and other stakeholders in mitigating or adapting to the impacts of ocean acidification and coastal acidification; and

''(3) establishing and maintaining the data archive system under subsection (d).

''(d) DATA ARCHIVE SYSTEM.—

''(1) IN GENERAL.—The Secretary, in coordination with the members of the interagency working group, shall support the long-term stewardship of, and access to, data relating to ocean and coastal acidification through providing the data on a publicly accessible data archive system. To the extent possible, this data archive system shall collect and provide access to ocean and coastal acidification data—

''(A) from relevant federally funded research;

''(B) provided by a Federal, State, or local government, academic scientist, citizen scientist, or industry organization;

''(C) voluntarily submitted by Tribes or Tribal governments; and

''(D) from existing global or national data assets that are currently maintained within Federal agencies.

''(2) DATA STANDARDS.—The Secretary to, the extent possible, shall ensure all such data adheres to data and metadata standards to support the public findability, accessibility, interoperability, and reusability of such data.''.

SEC. 10647. NSF OCEAN ACIDIFICATION ACTIVITIES.

Section 12407 of the Federal Ocean Acidification Research and Monitoring Act of 2009 (33 U.S.C. 3706) is amended—

(1) by striking ''ocean acidification'' each place it appears and inserting ''ocean acidification and coastal acidification'';

(2) in subsection (a)—

(A) in the matter preceding paragraph (1), by striking ''its impacts'' and inserting ''their respective impacts'';

(B) in paragraph (3), by striking ''and its impacts'' and inserting ''and their respective impacts'';

(C) in paragraph (4), by striking the period at the end and inserting ''; and''; and

(D) by adding at the end the following new paragraph:

''(5) adaptation and mitigation strategies to address socioeconomic effects of ocean acidification and coastal acidification.''; and

(3) by adding at the end the following:

''(d) REQUIREMENT.—Recipients of grants from the National Science Foundation under this subtitle that collect data described under section 12406(d) shall—

''(1) collect data in accordance with the standards, protocols, or procedures established pursuant to section 12406(d); and

''(2) submit such data to the Director and the Secretary after publication, in accordance with any rules promulgated by the Director or the Secretary.''.

SEC. 10648. NASA OCEAN ACIDIFICATION ACTIVITIES.

Section 12408 of the Federal Ocean Acidification Research and Monitoring Act of 2009 (33 U.S.C. 3707) is amended—

(1) by striking ''ocean acidification'' each place it appears and inserting ''ocean acidification and coastal acidification'';

(2) in subsection (a), by striking ''its impacts'' and inserting ''their respective impacts''; and

(3) by adding at the end the following new subsection:

''(d) REQUIREMENT.—Researchers from the National Aeronautics and Space Administration under this subtitle that collect data described under section 12406(d) shall—

''(1) collect such data in accordance with the standards, protocols, or procedures established pursuant to section 12406(d); and

''(2) submit such data to the Administrator and the Secretary, in accordance with any rules promulgated by the Administrator or the Secretary.''.

SEC. 10649. AUTHORIZATION OF APPROPRIATIONS.

Section 12409 of the Federal Ocean Acidification Research and Monitoring Act of 2009 (33 U.S.C. 3708) is amended—

(1) in subsection (a), by striking ''subtitle—'' and all that follows through paragraph (4) and inserting the following: ''subtitle—

''(1) $20,500,000 for fiscal year 2023;

''(2) $22,000,000 for fiscal year 2024;

''(3) $24,000,000 for fiscal year 2025;

''(4) $26,000,000 for fiscal year 2026; and

''(5) $28,000,000 for fiscal year 2027.''; and

(2) in subsection (b), by striking ''subtitle—'' and all that follows through paragraph (4) and inserting the following: ''subtitle, $20,000,000 for each of the fiscal years 2023 through 2027.''.

Subtitle F—Interagency Working Group

SEC. 10651. INTERAGENCY WORKING GROUP.

(a) ESTABLISHMENT.—The Director of the Office of Science and Technology Policy, acting through the National Science and Technology Council, shall establish or designate an interagency working group to coordinate the activities specified in subsection (c).

(b) COMPOSITION.—The interagency working group shall be composed of the following members (or their designees), who may be organized into subcommittees, as appropriate:

(1) The Secretary of Commerce.

(2) The Director of the National Science Foundation.

(3) The Secretary of Energy.

(4) The Secretary of Defense.

(5) The Director of the National Economic Council.

(6) The Director of the Office of Management and Budget.

(7) The Secretary of Health and Human Services.

(8) The Administrator of the National Aeronautics and Space Administration.

(9) The Secretary of Agriculture.

(10) The Director of National Intelligence.

(11) The Director of the Federal Bureau of Investigation.

(12) Such other Federal officials as the Director of the Office of Science and Technology Policy considers appropriate, including members of the National Science and Technology Council Committee on Technology.

(c) COORDINATION.—The interagency working group shall seek to ensure that the activities of different Federal agencies enhance and complement, but, as appropriate, do not duplicate, efforts being carried out by another Federal agency, with a focus on the following:

(1) The activities of the National Science Foundation Technology, Innovation, and Partnerships Directorate in the key technology focus areas, such as within the Regional Innovation Engines under section 10388 and test beds under section 10390.

(2) The activities of the Department of Commerce under this division, including regional technology hubs under section 28 of the Stevenson-Wydler Act of 1980 (15 U.S.C. 13701 et seq.), as added by section 10621, the Manufacturing USA Program established under section 34(b)(1) of the National Institute of Standards and Technology Act (15 U.S.C. 278s(b)(1)), and the Hollings Manufacturing Extension Partnership (15 U.S.C. 278k).

(3) The activities of the Department of Energy in the key technology focus areas, including at the national laboratories, and at Federal laboratories, as defined in section 4 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3703), and facilities and user facilities operated in partnership with such national laboratories or the Department of Energy.

(4) Any other program that the Director of the Office of Science and Technology Policy determines involves research and development with respect to the key technology focus areas.

(d) REPORT.—The interagency working group shall—

(1) by not later than 180 days after the date of enactment of this division—

(A) conduct an initial review of Federal programs and resources with respect to the key technology focus areas identified pursuant to section 10387(a)(2), in order to—

(i) assess current level of efforts and characterize existing research infrastructure, as of the date of the review;

(ii) identify potential areas of overlap or duplication with respect to the key technology focus areas; and

(iii) identify potential cross-agency collaborations and joint funding opportunities; and

(B) submit a report regarding the review described in subparagraph (A) to Congress; and

(C) seek stakeholder input and recommendations in the course of such review; and

(2) shall carry out the annual reviews and updates required under section 10387(e).

(e) CONFLICTS.—If any conflicts between Federal agencies arise while carrying out the activities under this section, the President shall make the final decision regarding resolution of the conflict.

Subtitle G—Quantum Networking and Communications

SEC. 10661. QUANTUM NETWORKING AND COMMUNICATIONS.

(a) DEFINITIONS.—In this section:

(1) DIRECTOR.—The term ''Director'' means the Director of the National Science Foundation.

(2) APPROPRIATE COMMITTEES OF CONGRESS.—The term ''appropriate committees of Congress'' has the meaning given such term in section 2 of the National Quantum Initiative Act (15 U.S.C. 8801).

(3) Q2WORK PROGRAM.—The term ''Q2Work Program'' means the Q2Work Program supported by the Foundation.

(b) QUANTUM NETWORKING WORKING GROUP REPORT ON QUANTUM NETWORKING AND COMMUNICATIONS.—

(1) REPORT.—Section 103 of the National Quantum Initiative Act (15 U.S.C. 8813) is amended by adding the following at the end the following new subsection:

''(h) REPORT ON QUANTUM NETWORKING AND COMMUNICATIONS.—

''(1) IN GENERAL.—Not later than January 1, 2026, the Quantum Networking Working Group within the Subcommittee on Quantum Information Science of the National Science and Technology Council, in coordination with the Subcommittee on the Economic and Security Implications of Quantum Information Science, shall submit to the appropriate committees of Congress a report detailing a plan for the advancement of quantum networking and communications technology in the United States, building on the report entitled A Strategic Vision for America's Quantum Networks and A Coordinated Approach for Quantum Networking Research.

''(2) REQUIREMENTS.—The report under paragraph (1) shall include the following:

''(A) An update to the report entitled Coordinated Approach to Quantum Networking Research Report focusing on a framework for interagency collaboration regarding the advancement of quantum networking and communications research.

''(B) A plan for Federal Government partnership with the private sector and interagency collaboration regarding engagement in international standards for quantum networking and communications technology, including a list of Federal priorities for standards relating to such networking and technology.

''(C) A proposal for the protection of national security interests relating to the advancement of quantum networking and communications technology.

''(D) An assessment of the relative position of the United States with respect to other countries in the global race to develop, demonstrate, and utilize quantum networking and communications technology.

''(E) Recommendations to Congress for legislative action relating to the matters considered under subparagraphs (A), (B), (C), and (D).

''(F) Such other matters as the Quantum Network Working Group considers necessary to advance the security of communications and network infrastructure, remain at the forefront of scientific discovery in the quantum information science domain, and transition quantum information science research into the emerging quantum technology economy.''.

(c) QUANTUM NETWORKING AND COMMUNICATIONS RESEARCH AND STANDARDIZATION.—

(1) RESEARCH.—Subsection (a) of section 201 of the National Quantum Initiative Act (15 U.S.C. 8831) is amended by—

(A) redesignating paragraphs (3) and (4) as paragraphs (6) and (7), respectively; and

(B) inserting after paragraph (2) the following new paragraphs:

''(3) shall carry out research to facilitate the development and standardization of quantum cryptography and post-quantum classical cryptography;

''(4) shall carry out research to facilitate the development and standardization of quantum networking, communications, and sensing technologies and applications;

''(5) for quantum technologies determined by the Director of the National Institute of Standards and Technology to be at a readiness level sufficient for standardization, shall provide technical review and assistance to such other Federal agencies as the Director considers appropriate for the development of quantum networking infrastructure standards;''.

(2) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Scientific and Technical Research and Services account of the National Institute of Standards and Technology to carry out paragraphs (3) through (5) of subsection (a) of section 201 of the National Quantum Initiative Act (as inserted pursuant to the amendments made by paragraph (1) of this subsection) $15,000,000 for each of fiscal years 2023 through 2027.

(d) QUANTUM INFORMATION SCIENCE WORKFORCE EVALUATION AND ACCELERATION.—

(1) IN GENERAL.—Not later than 180 days after the date of the enactment of this Act, the Director shall enter into an agreement with the National Academies of Sciences, Engineering, and Medicine to conduct a study to evaluate and make recommendations for the quantum information science workforce. The study shall—

(A) characterize the quantum information science workforce, including by—

(i) describing what constitutes a quantum information science qualified worker across sectors, including academia, the Federal Government, and industry; and

(ii) describing the size and makeup of the quantum information science workforce, including an assessment of current and future trends;

(B) identify near- and long-term quantum information science workforce needs across government, academia, and industry sectors, including identifying the cross-disciplinary academic degrees or academic courses necessary to—

(i) prepare students for multiple career pathways in quantum information sciences and related fields;

(ii) ensure the United States is competitive in the field of quantum information science while preserving national security; and

(iii) support the development of quantum applications;

(C) assess the state of quantum information science education and skills training at all education levels and identify gaps in meeting current and future workforce needs, including with respect to—

(i) elementary, middle, and high-school student access to foundational courses, age-appropriate quantum concepts, and hands-on learning opportunities;

(ii) elementary, middle, and high-school teacher professional development and access to resources, materials, lesson plans, modules, and curricula;

(iii) career pivot and skills training opportunities, including professional certificates and internships; and

(iv) higher education curricula, laboratory experiences in academia, the Federal Government, and industry settings, and cross-discipline degree programs aligned with workforce needs; and

(D) make recommendations for developing a diverse, flexible, and sustainable quantum information science workforce that meets the evolving needs of academia, the Federal Government, and industry.

(2) REPORT.—Not later than two years after the date of the enactment of this Act, the National Academies of Science, Engineering, and Medicine shall submit to Congress and the Director a report containing the results of the study conducted pursuant to paragraph (1).

(e) INCORPORATING QISE INTO STEM CURRICULUM.—

(1) IN GENERAL.—Section 301 of the National Quantum Initiative Act (15 U.S.C. 8841) is amended by adding the following at the end:

''(d) INCORPORATING QISE INTO STEM CURRICULUM.—

''(1) IN GENERAL.—The Director of the National Science Foundation shall, through programs carried out or supported by the National Science Foundation, seek to increase the integration of quantum information science and engineering (referred to in this subsection as 'QISE') into the STEM curriculum at all education levels, including community colleges, as considered appropriate by the Director.

''(2) CURRICULUM INTEGRATION.—The curriculum integration under paragraph (1) may include the following:

''(A) Methods to conceptualize QISE for elementary, middle, and high school curricula.

''(B) Methods for strengthening foundational mathematics and science curricula.

''(C) Methods for integrating students who are underserved or historically underrepresented groups in STEM.

''(D) Age-appropriate materials that apply the principles of quantum information science in STEM fields.

''(E) Recommendations for the standardization of key concepts, definitions, and curriculum criteria across government, academia, and industry.

''(F) Materials that specifically address the findings and outcomes of the study to evaluate and make recommendations for the quantum information science workforce pursuant to subsection (d) of section 10661 of the Research and Development, Competition, and Innovation Act and strategies to account for the skills and workforce needs identified through such study.

''(3) COORDINATION.—In carrying out this subsection, the Director shall coordinate with relevant Federal agencies, and consult with nongovernmental entities with expertise in QISE, as appropriate, which may include institutions eligible to participate in the Established Program to Stimulate Competitive Research (EPSCoR).

''(4) DEFINITION.—In this subsection, the term 'STEM' means the academic and professional disciplines of science, technology, engineering, and mathematics, including computer science.''.

(f) QUANTUM EDUCATION PILOT PROGRAM.—

(1) IN GENERAL.—Not later than one year after the date of the enactment of this Act, the Director, building on the National Science Foundation's role in the National Q–12 Education Partnership and programs such as Q2Work Program, shall make awards to institutions of higher education, non-profit organizations, or consortia thereof to carry out a pilot program, to be known as the ''Next Generation Quantum Leaders Pilot Program'' (in this subsection referred to as the ''Program''), for the education and training of the next generation of students and teachers in the fundamental principles of quantum mechanics.

(2) REQUIREMENTS.—

(A) IN GENERAL.—In carrying out the Program, the Director shall—

(i) encourage awardees to coordinate with educational service agencies (as such term ''educational service agency'' is defined in section 602(5) of the Individuals with Disabilities Education Improvement Act of 2004 (20 U.S.C. 1401(5))), associations that support STEM educators or local educational agencies, and partnerships through the Q–12 Education Partnership, to encourage elementary schools, middle schools, and secondary schools, and State educational agencies to participate in the Program;

(ii) require that awardees partner with elementary schools, middle schools, or secondary schools, or consortia thereof, and State educational agencies, to carry out activities under the Program;

(B) USE OF FUNDS.—In carrying out the Program, the Director shall make competitive, merit-reviewed awards to—

(i) support testing, evaluation, dissemination, and implementation of age-appropriate quantum information sciences curricula and resources, including the integration of quantum information science and engineering into the STEM curriculum pursuant to subsection (d) of section 301 of the National Quantum Initiative Act (15 U.S.C. 8841), as added by subsection (e);

(ii) support opportunities for informal education on quantum concepts, including informal hands-on learning opportunities;

(iii) support opportunities for students to further explore quantum information science education and related careers;

(iv) develop and implement training, research, and professional development programs for teachers, including innovative pre-service and in-service programs, in quantum information science and related fields; and

(v) carry out such other activities as the Director determines appropriate.

(C) DISTRIBUTION.—In carrying out the Program and to the extent practicable, the Director shall ensure there is a wide, equitable distribution of Program participants across diverse geographic areas and that the Program includes a diverse representation of students, including students from groups historically underrepresented in STEM.

(3) CONSULTATION.—The Director shall carry out the Program in consultation with the QIS Workforce Working Group of the Subcommittee on Quantum Information Science of the National Science and Technology Council and the Advancing Informal STEM Learning Program.

(4) REPORTING.—Not later than four years after the date of the enactment of this section, the Director shall submit to Congress a report that includes the following:

(A) An assessment, that includes feedback from a wide range of stakeholders in academia, K-12 education, and the private sector, of the effectiveness of the Program in scaling up implementation of effective quantum education and training innovations.

(B) If determined to be effective, a plan for integrating the Program into existing programs, including the feasibility and advisability of expanding the scope of the Program to include additional technology areas, grade levels, and educational institutions beyond those originally selected to participate in the Program.

(5) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Director $8,000,000 for each of fiscal years 2023 through 2026 to carry out this section.

(6) TERMINATION.—This subsection shall terminate on the date that is four years after the date of the enactment of this Act.

Subtitle H—Blockchain Specialist

SEC. 10671. ESTABLISHMENT OF BLOCKCHAIN AND CRYPTOCURRENCY SPECIALIST POSITION WITHIN OSTP.

The Director of the Office of Science and Technology Policy shall establish or designate a blockchain and cryptocurrencies advisory specialist position within the Office to coordinate Federal activities and advise the President on matters of research and development relating to blockchain, cryptocurrencies, and distributed ledger technologies.

Subtitle I—Partnerships for Energy Security and Innovation

SEC. 10691. FOUNDATION FOR ENERGY SECURITY AND INNOVATION.

(a) DEFINITIONS.—In this section:

(1) BOARD.—The term ''Board'' means the Board of Directors described in subsection (b)(2)(A).

(2) DEPARTMENT.—The term ''Department'' means the Department of Energy.

(3) EXECUTIVE DIRECTOR.—The term ''Executive Director'' means the Executive Director described in subsection (b)(5)(A).

(4) FOUNDATION.—The term ''Foundation'' means the Foundation for Energy Security and Innovation established under subsection (b)(1).

(5) HISTORICALLY BLACK COLLEGE OR UNIVERSITY.—The term ''historically Black college or university'' has the meaning given the term ''part B institution'' in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061).

(6) INDIVIDUAL LABORATORY-ASSOCIATED FOUNDATION.—The term ''Individual Laboratory-Associated Foundation'' means a Laboratory Foundation established by an operating contractor of a National Laboratory.

(7) MINORITY-SERVING INSTITUTION.—The term ''minority serving institution'' means a Hispanic-serving institution as defined in section 502 of the Higher Education Act of 1965 (20 U.S.C. 1101a), an Alaska Native-serving institution and a Native Hawaiian-serving institution as defined in section in 317 of the Higher Education Act of 1965 (20 U.S.C. 1059d), or a Predominantly Black Institution, Asian American and Native American Pacific Islander-serving institution, or a Native American-serving nontribal institution as defined in section 371 of the Higher Education Act of 1965 (20 U.S.C. 1067q).

(8) NATIONAL LABORATORY.—The term ''National Laboratory'' has the meaning given the term in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801).

(9) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(10) TRIBAL COLLEGE OR UNIVERSITY.—The term ''Tribal College or University'' has the meaning given in section 316 of the Higher Education Act of 1965 (20 U.S.C. 1059c).

(b) FOUNDATION FOR ENERGY SECURITY AND INNOVATION.—

(1) ESTABLISHMENT.—

(A) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Secretary shall establish a nonprofit corporation to be known as the ''Foundation for Energy Security and Innovation''.

(B) MISSION.—The mission of the Foundation shall be—

(i) to support the mission of the Department; and

(ii) to advance collaboration with energy researchers, institutions of higher education, industry, and nonprofit and philanthropic organizations to accelerate the commercialization of energy technologies.

(C) LIMITATION.—The Foundation shall not be an agency or instrumentality of the Federal Government.

(D) TAX-EXEMPT STATUS.—The Board shall take all necessary and appropriate steps to ensure that the Foundation is an organization that is described in section 501(c) of the Internal Revenue Code of 1986 and exempt from taxation under section 501(a) of that Code.

(E) COLLABORATION WITH EXISTING ORGANIZATIONS.—The Secretary may collaborate with 1 or more organizations to establish the Foundation and carry out the activities of the Foundation.

(2) BOARD OF DIRECTORS.—

(A) ESTABLISHMENT.—The Foundation shall be governed by a Board of Directors.

(B) COMPOSITION.—

(i) IN GENERAL.—The Board shall be composed of the ex officio nonvoting members described in clause (ii) and the appointed voting members described in clause (iii).

(ii) EX OFFICIO MEMBERS.—The ex officio members of the Board shall be the following individuals or designees of those individuals:

(I) The Secretary.

(II) The Under Secretary for Science.

(III) The Under Secretary for Nuclear Security.

(IV) The Chief Commercialization Officer.

(iii) APPOINTED MEMBERS.—

(I) INITIAL MEMBERS.—The Secretary and the other ex officio members of the Board shall—

(aa) seek to enter into an agreement with the National Academies of Sciences, Engineering, and Medicine to develop a list of individuals to serve as members of the Board who are well-qualified and will meet the requirements of subclauses (II) and (III); and

(bb) appoint the initial members of the Board from that list, if applicable, in consultation with the National Academies of Sciences, Engineering, and Medicine.

(II) REPRESENTATION.—The appointed members of the Board shall reflect a broad cross-section of stakeholders from academia, National Laboratories, industry, nonprofit organizations, State or local governments, the investment community, and the philanthropic community.

(III) EXPERIENCE.—The Secretary shall ensure that a majority of the appointed members of the Board—

(aa)(AA) has experience in the energy sector;

(BB) has research experience in the energy field; or

(CC) has experience in technology commercialization or foundation operations; and

(bb) to the extent practicable, represents diverse regions, sectors, and communities.

(C) CHAIR AND VICE CHAIR.—

(i) IN GENERAL.—The Board shall designate from among the members of the Board—

(I) an individual to serve as Chair of the Board; and

(II) an individual to serve as Vice Chair of the Board.

(ii) TERMS.—The term of service of the Chair and Vice Chair of the Board shall end on the earlier of—

(I) the date that is 3 years after the date on which the Chair or Vice Chair of the Board, as applicable, is designated for the position; and

(II) the last day of the term of service of the member, as determined under subparagraph (D)(i), who is designated to be Chair or Vice Chair of the Board, as applicable.

(iii) REPRESENTATION.—The Chair and Vice Chair of the Board—

(I) shall not be representatives of the same area of subject matter expertise, or entity, as applicable, under subparagraph (B)(iii)(II); and

(II) shall not be representatives of any area of subject matter expertise, or entity, as applicable, represented by the immediately preceding Chair and Vice Chair of the Board.

(D) TERMS AND VACANCIES.—

(i) TERMS.—

(I) IN GENERAL.—The term of service of each appointed member of the Board shall be not more than 5 years.

(II) INITIAL APPOINTED MEMBERS.—Of the initial members of the Board appointed under subparagraph (B)(iii)(I), half of the members shall serve for 4 years and half of the members shall serve for 5 years, as determined by the Chair of the Board.

(ii) VACANCIES.—Any vacancy in the membership of the appointed members of the Board—

(I) shall be filled in accordance with the bylaws of the Foundation by an individual capable of representing the same area or entity, as applicable, as represented by the vacating board member under subparagraph (B)(iii)(II);

(II) shall not affect the power of the remaining appointed members to execute the duties of the Board; and

(III) shall be filled by an individual selected by the Board.

(E) MEETINGS; QUORUM.—

(i) INITIAL MEETING.—Not later than 60 days after the Board is established, the Secretary shall convene a meeting of the ex officio and appointed members of the Board to incorporate the Foundation.

(ii) QUORUM.—A majority of the appointed members of the Board shall constitute a quorum for purposes of conducting the business of the Board.

(F) DUTIES.—The Board shall—

(i) establish bylaws for the Foundation in accordance with subparagraph (G);

(ii) provide overall direction for the activities of the Foundation and establish priority activities;

(iii) carry out any other necessary activities of the Foundation;

(iv) evaluate the performance of the Executive Director; and

(v) actively solicit and accept funds, gifts, grants, devises, or bequests of real or personal property to the Foundation, including from private entities.

(G) BYLAWS.—

(i) IN GENERAL.—The bylaws established under subparagraph (F)(i) may include—

(I) policies for the selection of Board members, officers, employees, agents, and contractors of the Foundation;

(II) policies, including ethical standards, for—

(aa) the acceptance, solicitation, and disposition of donations and grants to the Foundation, including appropriate limits on the ability of donors to designate, by stipulation or restriction, the use or recipient of donated funds; and

(bb) the disposition of assets of the Foundation;

(III) policies that subject all employees, fellows, trainees, and other agents of the Foundation (including ex officio and appointed members of the Board) to conflict of interest standards; and

(IV) the specific duties of the Executive Director.

(ii) REQUIREMENTS.—The Board shall ensure that the bylaws of the Foundation and the activities carried out under those bylaws shall not—

(I) reflect unfavorably on the ability of the Foundation to carry out activities in a fair and objective manner; or

(II) compromise, or appear to compromise, the integrity of any governmental agency or program, or any officer or employee employed by, or involved in, a governmental agency or program.

(H) COMPENSATION.—

(i) IN GENERAL.—No member of the Board shall receive compensation for serving on the Board.

(ii) CERTAIN EXPENSES.—In accordance with the bylaws of the Foundation, members of the Board may be reimbursed for travel expenses, including per diem in lieu of subsistence, and other necessary expenses incurred in carrying out the duties of the Board.

(I) RESTRICTION ON MEMBERSHIP.—No employee of the Department shall be appointed as a member of the Board of Directors.

(3) PURPOSES.—The purposes of the Foundation are—

(A) to support the Department in carrying out the mission of the Department to ensure the security and prosperity of the United States by addressing energy and environmental challenges through transformative science and technology solutions; and

(B) to increase private and philanthropic sector investments that support efforts to create, characterize, develop, test, validate, and deploy or commercialize innovative technologies that address crosscutting national energy challenges, including those affecting minority, rural, and other underserved communities, by methods that include—

(i) fostering collaboration and partnerships with researchers from the Federal Government, State governments, institutions of higher education, including historically Black colleges or universities, Tribal Colleges or Universities, and minority-serving institutions, federally funded research and development centers, industry, and nonprofit organizations for the research, development, or commercialization of transformative energy and associated technologies;

(ii) strengthening and sharing best practices relating to regional economic development through scientific and energy innovation, including in partnership with an Individual Laboratory-Associated Foundation;

(iii) promoting new product development that supports job creation;

(iv) administering prize competitions—

(I) to accelerate private sector competition and investment; and

(II) that complement the use of prize authority by the Department;

(v) supporting programs that advance technology maturation, especially where there may be gaps in Federal or private funding in advancing a technology to deployment or commercialization from the prototype stage to a commercial stage;

(vi) supporting efforts to broaden participation in energy technology development among individuals from historically underrepresented groups or regions; and

(vii) facilitating access to Department facilities, equipment, and expertise to assist in tackling national challenges.

(4) ACTIVITIES.—

(A) STUDIES, COMPETITIONS, AND PROJECTS.—The Foundation may conduct and support studies, competitions, projects, and other activities that further the purposes of the Foundation described in paragraph (3).

(B) FELLOWSHIPS AND GRANTS.—

(i) IN GENERAL.—The Foundation may award fellowships and grants for activities relating to research, development, demonstration, maturation, or commercialization of energy and other Department-supported technologies.

(ii) FORM OF AWARD.—A fellowship or grant under clause (i) may consist of a stipend, health insurance benefits, funds for travel, and funds for other appropriate expenses.

(iii) SELECTION.—In selecting a recipient for a fellowship or grant under clause (i), the Foundation—

(I) shall make the selection based on the technical and commercialization merits of the proposed project of the potential recipient; and

(II) may consult with a potential recipient regarding the ability of the potential recipient to carry out various projects that would further the purposes of the Foundation described in paragraph (3).

(iv) NATIONAL LABORATORIES.—A National Laboratory that applies for or accepts an award under clause (i) shall not be considered to be engaging in a competitive process.

(C) ACCESSING FACILITIES AND EXPERTISE.—The Foundation may work with the Department—

(i) to leverage the capabilities and facilities of National Laboratories to commercialize technology; and

(ii) to assist with resources, including by providing information on the assets of each National Laboratory that may enable the deployment and commercialization of technology.

(D) TRAINING AND EDUCATION.—The Foundation may support programs that provide training to researchers, scientists, other relevant personnel at National Laboratories and institutions of higher education, and previous or current recipients of or applicants for Department funding to help research, develop, demonstrate, deploy, and commercialize federally funded technology.

(E) MATURATION FUNDING.—The Foundation shall support programs that provide maturation funding to researchers to advance the technology of those researchers for the purpose of moving products from a prototype stage to a commercial stage.

(F) STAKEHOLDER ENGAGEMENT.—The Foundation shall convene, and may consult with, representatives from the Department, institutions of higher education, National Laboratories, the private sector, and commercialization organizations to develop programs for the purposes of the Foundation described in paragraph (3) and to advance the activities of the Foundation.

(G) INDIVIDUAL AND FEDERAL LABORATORY-ASSOCIATED FOUNDATIONS.—

(i) DEFINITION OF COVERED FOUNDATION.—In this subparagraph, the term ''covered foundation'' means each of the following:

(I) An Individual Laboratory- Associated Foundation.

(II) A Federal Laboratory- Associated Foundation established pursuant to subsection (c)(1).

(ii) SUPPORT.—The Foundation shall provide support to and collaborate with covered foundations.

(iii) GUIDELINES AND TEMPLATES.—For the purpose of providing support under clause (ii), the Secretary shall establish suggested guidelines and templates for covered foundations, including—

(I) a standard adaptable organizational design for responsible management;

(II) standard and legally tenable bylaws and money-handling procedures; and

(III) a standard training curriculum to orient and expand the operating expertise of personnel employed by covered foundations.

(iv) AFFILIATIONS.—Nothing in this subparagraph requires—

(I) an existing Individual Laboratory-Associated Foundation to modify current practices or affiliate with the Foundation; or

(II) a covered foundation to be bound by charter or corporate bylaws as permanently affiliated with the Foundation.

(H) SUPPLEMENTAL PROGRAMS.—The Foundation may carry out supplemental programs—

(i) to conduct and support forums, meetings, conferences, courses, and training workshops consistent with the purposes of the Foundation described in paragraph (3);

(ii) to support and encourage the understanding and development of data that promotes the translation of technologies from the research stage, through the development and maturation stage, and ending in the market stage;

(iii) for writing, editing, printing, publishing, and vending books and other materials relating to research carried out under the Foundation and the Department; and

(iv) to conduct other activities to carry out and support the purposes of the Foundation described in paragraph (3).

(I) EVALUATIONS.—The Foundation shall support the development of an evaluation methodology, to be used as part of any program supported by the Foundation, that shall—

(i) consist of qualitative and quantitative metrics; and

(ii) include periodic third party evaluation of those programs and other activities of the Foundation.

(J) COMMUNICATIONS.—The Foundation shall develop an expertise in communications to promote the work of grant and fellowship recipients under subparagraph (B), the commercialization successes of the Foundation, opportunities for partnership with the Foundation, and other activities.

(K) SOLICITATION AND USE OF FUNDS.—The Foundation may solicit and accept gifts, grants, and other donations, establish accounts, and invest and expend funds in support of the activities and programs of the Foundation.

(L) AUTHORITY OF THE FOUNDATION.—The Foundation shall be the sole entity responsible for carrying out the activities described in this paragraph.

(5) ADMINISTRATION.—

(A) EXECUTIVE DIRECTOR.—The Board shall hire an Executive Director of the Foundation, who shall serve at the pleasure of the Board. Subject to the compliance with the policies and bylaws established pursuant to paragraph (2)(G), the Executive Director shall be responsible for the daily operations of the Foundation in carrying the activities described in paragraph (4).

(B) COMPENSATION.—The rate of compensation of the Executive Director shall be fixed by the Board.

(C) ADMINISTRATIVE CONTROL.—No member of the Board, officer or employee of the Foundation or of any program established by the Foundation, or participant in a program established by the Foundation, shall exercise administrative control over any Federal employee.

(D) STRATEGIC PLAN.—Not later than 1 year after the date of enactment of this Act, the Foundation shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a strategic plan that contains—

(i) a plan for the Foundation to become financially self-sustaining in fiscal year 2023 and thereafter (except for the amounts provided each fiscal year under paragraph (11)(A)(iii));

(ii) a forecast of major crosscutting energy challenge opportunities, including short- and long-term objectives, identified by the Board, with input from communities representing the entities and areas of subject matter expertise, as applicable, described in paragraph (2)(B)(iii)(II);

(iii) a description of the efforts that the Foundation will take to be transparent in the processes of the Foundation, including processes relating to—

(I) grant awards, including selection, review, and notification;

(II) communication of past, current, and future research priorities; and

(III) solicitation of and response to public input on the opportunities identified under clause (ii);

(iv) a description of the financial goals and benchmarks of the Foundation for the following 10 years;

(v) a description of the efforts undertaken by the Foundation to engage historically underrepresented groups or regions, including through collaborations with historically Black colleges and universities, Tribal Colleges or Universities, minority-serving institutions, and minority-owned and women-owned business, and;

(vi) a description of the efforts undertaken by the Foundation to ensure maximum complementarity and minimum redundancy with investments made by the Department.

(E) ANNUAL REPORT.—Not later than 1 year after the date on which the Foundation is established, and every years thereafter, the Foundation shall submit to the Committee on Energy and Natural Resources of the Senate, the Committee on Science, Space, and Technology of the House of Representatives, and the Secretary a report that, for the year covered by the report—

(i) describes the activities of the Foundation and the progress of the Foundation in furthering the purposes of the Foundation described in paragraph (3);

(ii) provides a specific accounting of the source and use of all funds made available to the Foundation to carry out those activities to ensure transparency in the alignment of Department missions and policies with national security;

(iii) describes how the results of the activities of the Foundation could be incorporated into the procurement processes of the General Services Administration; and

(iv) includes a summary of each evaluation conducted using the evaluation methodology described in paragraph (4)(I).

(F) EVALUATION BY COMPTROLLER GENERAL.—Not later than 5 years after the date on which the Foundation is established, the Comptroller General of the United States shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of the House of Representatives—

(i) an evaluation of—

(I) the extent to which the Foundation is achieving the mission of the Foundation; and

(II) the operation of the Foundation; and

(ii) any recommendations on how the Foundation may be improved.

(G) AUDITS.—The Foundation shall—

(i) provide for annual audits of the financial condition of the Foundation; and

(ii) make the audits, and all other records, documents, and papers of the Foundation, available to the Secretary and the Comptroller General of the United States for examination or audit.

(H) SEPARATE FUND ACCOUNTS.—The Board shall ensure that any funds received under paragraph (11)(A) are held in a separate account from any other funds received by the Foundation.

(I) INTEGRITY.—

(i) IN GENERAL.—To ensure integrity in the operations of the Foundation, the Board shall develop and enforce procedures relating to standards of conduct, financial disclosure statements, conflicts of interest (including recusal and waiver rules), audits, and any other matters determined appropriate by the Board.

(ii) FINANCIAL CONFLICTS OF INTEREST.—To mitigate conflicts of interest and risks from malign foreign influence, any individual who is an officer, employee, or member of the Board is prohibited from any participation in deliberations by the Foundation of a matter that would directly or predictably affect any financial interest of—

(I) the individual;

(II) a relative (as defined in section 109 of the Ethics in Government Act of 1978 (5 U.S.C. App.)) of that individual; or

(III) a business organization or other entity in which the individual has an interest, including an organization or other entity with which the individual is negotiating employment.

(J) INTELLECTUAL PROPERTY.—The Board shall adopt written standards to govern the ownership and licensing of any intellectual property rights developed by the Foundation or derived from the collaborative efforts of the Foundation.

(K) LIABILITY.—

(i) IN GENERAL.—The United States shall not be liable for any debts, defaults, acts, or omissions of—

(I) the Foundation;

(II) a Federal entity with respect to an agreement of that Federal entity with the Foundation; or

(III) an Individual Laboratory- Associated Foundation with respect to an agreement of that Federal entity with the Foundation.

(ii) FULL FAITH AND CREDIT.—The full faith and credit of the United States shall not extend to any obligations of the Foundation.

(L) NONAPPLICABILITY OF FACA.—The Federal Advisory Committee Act (5 U.S.C. App.) shall not apply to the Foundation or an Individual Laboratory-Associated Foundation.

(6) DEPARTMENT COLLABORATION.—

(A) NATIONAL LABORATORIES.—The Secretary shall collaborate with the Foundation to develop a process to ensure collaboration and coordination between the Department, the Foundation, and National Laboratories—

(i) to streamline contracting processes between National Laboratories and the Foundation, including by—

(I) streamlining the ability of the Foundation to transfer equipment and funds to National Laboratories;

(II) standardizing contract mechanisms to be used by the Foundation in engaging with National Laboratories; and

(III) streamlining the ability of the Foundation to fund endowed positions at National Laboratories;

(ii) to allow a National Laboratory or site of a National Laboratory—

(I) to accept and perform work for the Foundation, consistent with provided resources, notwithstanding any other provision of law governing the administration, mission, use, or operations of the National Laboratory or site, as applicable; and

(II) to perform that work on a basis equal to other missions at the National Laboratory; and

(iii) to permit the director of any National Laboratory or site of a National Laboratory to enter into a cooperative research and development agreement or negotiate a licensing agreement with the Foundation pursuant to section 12 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710a).

(B) DEPARTMENT LIAISONS.—The Secretary shall appoint liaisons from across the Department to collaborate and coordinate with the Foundation, including not less than 1 liaison from the Office of Technology Transitions, who shall ensure that the Foundation works in conjunction with and does not duplicate existing activities and programs carried out by the Department, including the Technology Commercialization Fund of the Department.

(C) ADMINISTRATION.—The Secretary shall leverage appropriate arrangements, contracts, and directives to carry out the process developed under subparagraph (A).

(7) NATIONAL SECURITY.—Nothing in this subsection exempts the Foundation from any national security policy of the Department.

(8) SUPPORT SERVICES.—The Secretary may provide facilities, utilities, and support services to the Foundation if it is determined by the Secretary to be advantageous to the research programs of the Department.

(9) PREEMPTION OF AUTHORITY.—This subsection shall not preempt any authority or responsibility of the Secretary under any other provision of law.

(10) TRANSFER FUNDS.—The Foundation may transfer funds to the Department, which shall be subject to all applicable Federal limitations relating to federally funded research.

(11) AUTHORIZATION OF APPROPRIATIONS.—

(A) IN GENERAL.—There is authorized to be appropriated—

(i) not less than $1,500,000 shall be for the Secretary for fiscal year 2023 to establish the Foundation;

(ii) not less than $30,000,000 shall be for the Foundation for fiscal year 2024 to carry out the activities of the Foundation; and

(iii) not less than $3,000,000 shall be for the Foundation for each of the fiscal years 2025 through 2027 for administrative and operational costs.

(B) LIMITATION.—None of the funds authorized to be appropriated to the Secretary by subparagraph (A)(i) of this paragraph shall be used for construction.

(C) COST SHARE.—Funds made available under subparagraph (A)(ii) shall be required to be cost- shared by a partner of the Foundation other than the Department or a National Laboratory.

(c) NATIONAL ENERGY TECHNOLOGY LABORATORY-ASSOCIATED FOUNDATION.—

(1) ESTABLISHMENT.—

(A) IN GENERAL.—The National Energy Technology Laboratory may establish, or enter into an agreement with a nonprofit organization to establish, a Federal Laboratory-Associated Foundation (referred to in this subsection as a ''Laboratory Foundation'') to support the mission of the National Energy Technology Laboratory.

(B) NOT AGENCY OR INSTRUMENTALITY.—A Laboratory Foundation shall not be an agency or instrumentality of the Federal Government.

(C) GOVERNANCE STRUCTURE.—A Laboratory Foundation established under subparagraph (A) shall have a separate governance structure from, and shall be managed independently of, the National Energy Technology Laboratory.

(2) ACTIVITIES.—Activities of a Laboratory Foundation may include—

(A) conducting support studies, competitions, projects, research, and other activities that further the purpose of the Laboratory Foundation;

(B) carrying out programs to foster collaboration and partnership among researchers from the Federal Government, State governments, institutions of higher education, federally funded research and development centers, and industry and nonprofit organizations relating to the research, development, and commercialization of federally supported technologies;

(C) carrying out programs to leverage technologies to support new product development that supports regional economic development;

(D) administering prize competitions—

(i) to accelerate private sector competition and investment; and

(ii) that complement the use of prize authority by the Department;

(E) providing fellowships and grants to research and development personnel at, or affiliated with, federally funded centers, in accordance with paragraph (3);

(F) carrying out programs—

(i) that allow scientists from foreign countries to serve in research capacities in the United States or other countries in association with the National Energy Technology Laboratory;

(ii) that provide opportunities for employees of the National Energy Technology Laboratory to serve in research capacities in foreign countries;

(iii) to conduct studies, projects, or research in collaboration with national and international nonprofit and for-profit organizations, which may include the provision of stipends, travel, and other support for personnel;

(iv)(I) to hold forums, meetings, conferences, courses, and training workshops that may include undergraduate, graduate, post- graduate, and post-doctoral accredited courses; and

(II) for the accreditation of those courses by the Laboratory Foundation at the State and national level for college degrees or continuing education credits;

(v) to support and encourage teachers and students of science at all levels of education;

(vi) to promote an understanding of science amongst the general public;

(vii) for writing, editing, printing, publishing, and vending of relevant books and other materials; and

(viii) for the conduct of other activities to carry out and support the purpose of the Laboratory Foundation; and

(G) receiving, administering, soliciting, accepting, and using funds, gifts, devises, or bequests, either absolutely or in trust of real or personal property or any income therefrom, or other interest or equity therein for the benefit of, or in connection with, the mission of the applicable Federal laboratory, in accordance with paragraph (4).

(3) FELLOWSHIPS AND GRANTS.—

(A) SELECTION.—Recipients of fellowships and grants described in paragraph (2)(E) shall be selected—

(i) by a Laboratory Foundation and the donors to a Laboratory Foundation;

(ii) subject to the agreement of the head of the agency the mission of which is supported by a Laboratory Foundation; and

(iii) in the case of a fellowship, based on the recommendation of the employees of the National Energy Technology Laboratory at which the fellow would serve.

(B) EXPENSES.—Fellowships and grants described in paragraph (2)(E) may include stipends, travel, health insurance, benefits, and other appropriate expenses.

(4) GIFTS.—An amount of funds, a gift, a devise, or a bequest described in paragraph (2)(G) may be accepted by a Laboratory Foundation regardless of whether it is encumbered, restricted, or subject to a beneficial interest of a private person if any current or future interest of the funds, gift, devise, or bequest is for the benefit of the research and development activities of the National Energy Technology Laboratory.

(5) OWNERSHIP BY FEDERAL GOVERNMENT.—A contribution, gift, or any other transfer made to or for the use of a Laboratory Foundation shall be regarded as a contribution, gift, or transfer to or for the use of the Federal Government.

(6) LIABILITY.—The United States shall not be liable for any debts, defaults, acts, or omissions of a Laboratory Foundation.

(7) TRANSFER OF FUNDS.—Notwithstanding any other provision of law, a Laboratory Foundation may transfer funds to the National Energy Technology Laboratory and the National Energy Technology Laboratory may accept that transfer of funds.

(8) OTHER LAWS.—This subsection shall not alter or supersede any other provision of law governing the authority, scope, establishment, or use of nonprofit organizations by a Federal agency.

Subtitle J—Energizing Technology Transfer

SEC. 10701. DEFINITIONS.

In this subtitle:

(1) CLEAN ENERGY TECHNOLOGY.—The term ''clean energy technology'' means a technology that significantly reduces energy use, increases energy efficiency, reduces greenhouse gas emissions, reduces emissions of other pollutants, or mitigates other negative environmental consequences of energy production, transmission or use.

(2) DEPARTMENT.—The term ''Department'' means the Department of Energy.

(3) DIRECTOR.—The term ''Director'' means the Director of each National Laboratory and the Director of each Department of Energy single-purpose research facility.

(4) ECONOMICALLY DISTRESSED AREA.—The term ''economically distressed area'' has the meaning described in section 301(a) of the Public Works and Economic Development Act of 1965 (42 U.S.C. 3161(a)).

(5) GRANT.—The term ''grant'' means a grant award, cooperative agreement award, or any other financial assistance arrangement that the Secretary of Energy determines to be appropriate.

(6) INSTITUTION OF HIGHER EDUCATION.—The term ''institution of higher education'' has the meaning given such term in section 101 of the Higher Education Act of 1965, as amended (20 U.S.C. 1001).

(7) NATIONAL LABORATORY.—The term ''National Laboratory'' has the meaning given that term in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801).

(8) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

PART 1—NATIONAL CLEAN ENERGY TECHNOLOGY TRANSFER PROGRAMS

SEC. 10713. NATIONAL CLEAN ENERGY INCUBATOR PROGRAM.

(a) CLEAN ENERGY INCUBATOR DEFINED.—In this section, the term ''clean energy incubator''—

(1) means any entity that is designed to accelerate the commercial application of clean energy technologies by providing—

(A) physical workspace, labs, and prototyping facilities to support clean energy startups or established clean energy companies; or

(B) companies developing such technologies with support, resources, and services, including—

(i) access to business education and counseling;

(ii) mentorship opportunities; and

(iii) other services rendered for the purpose of aiding the development and commercial application of a clean energy technology; and

(2) may include a program within or established by a National Laboratory, an institution of higher education or a State, territorial, local, or tribal government.

(b) PROGRAM ESTABLISHMENT.—Not later than 180 days after the enactment of this Act, the Secretary, acting through the Chief Commercialization Officer established in section 1001(a) of the Energy Policy Act of 2005 (42 U.S.C. 16391(a)), shall establish a Clean Energy Incubator Program (herein referred to as the ''program'') to competitively award grants to clean energy incubators.

(c) CLEAN ENERGY INCUBATOR SELECTION.—In awarding grants to clean energy incubators under subsection (b), the Secretary shall, to the maximum extent practicable, prioritize funding clean energy incubators that—

(1) partner with entities that carry out activities relevant to the activities of such incubator and that operate at the local, State, and regional levels;

(2) support the commercial application activities of startup companies focused on physical hardware, computational, or integrated hardware and software technologies;

(3) are located in geographically diverse regions of the United States, such as the Great Lakes region;

(4) are located in, or partner with entities located in, economically-distressed areas;

(5) support the development of entities focused on expanding clean energy tools and technologies to rural, Tribal, and low-income communities;

(6) support the commercial application of technologies being developed by clean energy entrepreneurs from underrepresented backgrounds; and

(7) have a plan for sustaining activities of the incubator after grant funds received under this program have been expended.

(d) AWARD LIMITS.—The Secretary shall not award more than $4,000,000 to one or more incubators in one given State, per fiscal year.

(e) DURATION.—Each grant under subsection (b) shall be for a period of no longer than 5 years, subject to the availability of appropriations.

(f) USE OF FUNDS.—An entity receiving a grant under this section may use grant amounts for operating expenses.

(g) RENEWAL.—An award made to a clean energy incubator under this section may be renewed for a period of not more than 3 years, subject to merit review.

(h) EVALUATION.—In accordance with section 9007 of division Z of the Consolidated Appropriations Act, 2021 (Public Law 116–260), the Secretary shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate an evaluation of the program established under this section that includes analyses of the performance of the clean energy incubators.

(i) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out this section $15,000,000 for each of fiscal years 2023 through 2027.

SEC. 10714. CLEAN ENERGY TECHNOLOGY UNIVERSITY PRIZE COMPETITION.

(a) DEFINITIONS.—In this section:

(1) ELIGIBLE ENTITY.—The term ''eligible entity'' means a nonprofit entity, an institution of higher education, or an entity working with one or more institutions of higher education.

(2) MINORITY-SERVING INSTITUTION.—The term ''minority-serving institution'' means an institution described in section 371(a) of the Higher Education Act of 1965 (20 U.S.C. 1067q(a)).

(b) IN GENERAL.—The Secretary shall establish a program, known as the ''Clean Energy Technology University Prize'', to award funding for eligible entities to carry out regional and one national clean energy technology prize competitions, under section 24 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3719). In carrying out such prize competitions, students shall compete to develop a business model for furthering the commercial application of an innovative clean energy technology.

(c) TRAINING FUNDING.—In carrying out this program, the Secretary may provide funding to train participating students in skills needed for the successful commercial application of clean energy technologies, including through virtual training sessions.

(d) PRIORITIZATION.—In awarding grants under this section, the Secretary shall prioritize awarding grants to eligible entities that work with students at minority-serving institutions.

(e) COORDINATION.—In carrying out this program, the Secretary shall coordinate and partner with other clean energy technology prize competitions. In doing so, the Secretary may develop and disseminate best practices for administering prize competitions under this section.

(f) REPORT.—In accordance with section 9007 of division Z of the Consolidated Appropriations Act, 2021 (Public Law 116–260), the Secretary shall report annually on the progress and implementation of the program established under section (b).

(g) EVALUATION.—In accordance with section 9007 of division Z of the Consolidated Appropriations Act, 2021 (Public Law 116–260), the Secretary shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate an evaluation on the long-term outcomes of the program established under this section and the progress towards achieving the purposes of the program in subsection (b).

(h) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out the activities authorized in this section $1,000,000 for each of fiscal years 2023 through 2027.

SEC. 10715. CLEAN ENERGY TECHNOLOGY TRANSFER COORDINATION.

(a) IN GENERAL.—The Secretary, acting through the Chief Commercialization Officer established in section 1001 (a) of the Energy Policy Act of 2005 (42 U.S.C. 16391 (a)), shall support the coordination of relevant technology transfer programs that advance the commercial application of clean energy technologies nationally and across all energy sectors. In particular, the Secretary may support activities to—

(1) facilitate the sharing of information on best practices for successful operation of clean energy technology transfer programs;

(2) coordinate resources and improve cooperation among clean energy technology transfer programs;

(3) facilitate connections between entrepreneurs and start-up companies and the variety of programs related to clean energy technology transfer under the Department; and

(4) facilitate the development of metrics to measure the impact of clean energy technology transfer programs on—

(A) advancing the development, demonstration, and commercial application of clean energy technologies;

(B) increasing the competitiveness of United States in the clean energy sector, including in manufacturing; and

(C) commercial application of clean energy technologies being developed by entrepreneurs from under-represented backgrounds.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out the activities in this section $3,000,000 for each of fiscal years 2023 through 2027.

PART 2—SUPPORTING TECHNOLOGY DEVELOPMENT AT THE NATIONAL LABORATORIES

SEC. 10716. LAB PARTNERING SERVICE PILOT PROGRAM.

Section 9002 of division Z of the Consolidated Appropriations Act, 2021 (Public Law 116–260) is amended by adding at the end the following:

''(h) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary $2,000,000 for each of fiscal years 2023 through 2025 to carry out subsections (a), (b), and (c), and $1,700,000 for each of fiscal years 2023 through 2025 for National Laboratory employees to provide services under subsection (d).''.

SEC. 10717. LAB-EMBEDDED ENTREPRENEURSHIP PROGRAM.

(a) IN GENERAL.—The Secretary shall competitively award grants to National Laboratories for the purpose of establishing or supporting Lab-Embedded Entrepreneurship Programs.

(b) PURPOSES.—The purposes of such programs are to provide entrepreneurial fellows with access to National Laboratory research facilities, National Laboratory expertise, and mentorship to perform research and development and gain expertise that may be required or beneficial for the commercial application of research ideas.

(c) ENTREPRENEURIAL FELLOWS.—An entrepreneurial fellow participating in a program described in subsection (a) shall be provided with—

(1) opportunities for entrepreneurial training, professional development, and exposure to leaders from academia, industry, government, and finance who may serve as advisors to or partners of the fellow;

(2) financial and technical support for research, development, and commercial application activities;

(3) fellowship awards to cover costs of living, health insurance, and travel stipends for the duration of the fellowship; and

(4) any other resources determined appropriate by the Secretary.

(d) PROGRAM ACTIVITIES.—Each National Laboratory that receives funding under this section shall support entrepreneurial fellows by providing—

(1) access to facilities and expertise within the National Laboratory;

(2) engagement with external stakeholders; and

(3) market and customer development opportunities.

(e) ADMINISTRATION.—National Laboratories that receive grants under this section shall prioritize the support and success of the entrepreneurial fellow with regards to professional development and development of a relevant technology.

(f) PARTNERSHIPS.—In carrying out a Lab-Embedded Entrepreneurship Program, a National Laboratory may partner with an external entity, including—

(1) a nonprofit organization;

(2) an institution of higher education;

(3) a federally-owned corporation; or

(4) a consortium of 2 or more entities described in paragraphs (1) through (3).

(g) METRICS.—The Secretary shall support the development of short-term and long-term metrics to assess the effectiveness of programs receiving a grant under subsection (a) in achieving the purposes of the program in subsection (a).

(h) EVALUATION.—In accordance with section 9007 of division Z of the Consolidated Appropriations Act, 2021 (Public Law 116–260), the Secretary shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate an evaluation of the effectiveness of the programs under subsection (a) based on the metrics developed pursuant to subsection (g).

(i) COORDINATION.—The Secretary shall oversee the planning and coordination of grants under subsection (a) and shall identify and disseminate best practices for achieving the purposes of subsection (a) to National Laboratories that receive grants under this section.

(j) INTERAGENCY COLLABORATION.—The Secretary shall collaborate with other executive branch agencies, including the Department of Defense and other agencies with Federal laboratories, regarding opportunities to partner with National Laboratories receiving a grant under subsection (a).

(k) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out the activities authorized in this section $25,000,000 for each of fiscal years 2023 through 2027.

SEC. 10718. SMALL BUSINESS VOUCHER PROGRAM.

Section 1003 of the Energy Policy Act of 2005 (42 U.S.C. 16393) is amended—

(1) in subsection (a)—

(A) in the matter preceding paragraph (1), by striking '', and may require the Director of a single-purpose research facility,'' and inserting ''(as defined in section 2) and the Director of each single-purpose research facility'';

(B) in paragraph (1)—

(i) by striking ''increase'' and inserting ''encourage''; and

(ii) by striking ''collaborative research,'' and inserting ''research, development, demonstration, and commercial application activities, including product development,'';

(C) in paragraph (2), by striking ''procurement and collaborative research'' and inserting ''the activities described in paragraph (1)'';

(D) in paragraph (3)—

(i) by inserting ''facilities,'' before ''training''; and

(ii) by striking ''procurement and collaborative research activities'' and inserting ''the activities described in paragraph (1)''; and

(E) in paragraph (5), by striking ''for the program under subsection (b)'' and inserting ''and metrics for the programs under subsections (b) and (c)'';

(2) by redesignating subsections (c) and (d) as subsections (d) and (e), respectively;

(3) by inserting after subsection (b) the following:

''(c) SMALL BUSINESS VOUCHER PROGRAM.—

''(1) DEFINITIONS.—In this subsection:

''(A) DIRECTOR.—The term 'Director' means—

''(i) the Director of each National Laboratory; and

''(ii) the Director of each single-purpose research facility.

''(B) NATIONAL LABORATORY.—The term 'National Laboratory' has the meaning given the term in section 2.

''(C) PROGRAM.—The term 'program' means the program established under paragraph (2).

''(D) SMALL BUSINESS CONCERN.—The term 'small business concern' has the meaning given such term in section 3 of the Small Business Act (15 U.S.C. 632).

''(2) ESTABLISHMENT.—The Secretary, acting through the Chief Commercialization Officer appointed under section 1001(a), and in consultation with the Directors, shall establish a program to provide small business concerns with vouchers under paragraph (3)—

''(A) to achieve the goal described in subsection (a)(1); and

''(B) to improve the products, services, and capabilities of small business concerns in the mission space of the Department.

''(3) VOUCHERS.—Under the program, the Directors are authorized to provide to small business concerns vouchers to be used at National Laboratories and single-purpose research facilities for—

''(A) research, development, demonstration, technology transfer, skills training and workforce development, or commercial application activities; or

''(B) any other activities that the applicable Director determines appropriate.

''(4) EXPEDITED APPROVAL.—The Secretary, working with the Directors, shall establish a stream-lined approval process for financial assistance agreements signed between—

''(A) small business concerns selected to receive a voucher under the program; and

''(B) the National Laboratories and single-purpose research facilities.

''(5) COST-SHARING REQUIREMENT.—In carrying out the program, the Secretary shall require cost-sharing in accordance with section 988.

''(6) REPORT.—In accordance with section 9007 of division Z of the Consolidated Appropriations Act, 2021 (Public Law 116–260), the Secretary shall report annually on the progress and implementation of the small business voucher program established under this section, including the number and locations of small businesses that received grants under this program.''; and

(4) in subsection (e) (as so redesignated), by striking ''for activities under this section'' and inserting ''for activities under subsection (b)'' and inserting before the period at the end ''and for activities under subsection (c) $25,000,000 for each of fiscal years 2023 through 2027''.

SEC. 10719. ENTREPRENEURIAL LEAVE PROGRAM.

(a) IN GENERAL.—The Secretary shall delegate to Directors the authority to carry out an entrepreneurial leave program (referred to in this section as the ''program'') to allow National Laboratory employees to take a full leave of absence from their position, with the option to return to that or a comparable position up to 3 years later, or a partial leave of absence, to advance the commercial application of energy and related technologies relevant to the mission of the Department.

(b) TERMINATION AUTHORITY.—Directors shall retain the authority to terminate National Laboratory employees that participate in the program if such employees are found to violate terms prescribed by the National Laboratory at which such employee is employed.

(c) LICENSING.—To reduce barriers to participation in the program, the Secretary shall delegate to the Directors the requirement to establish streamlined mechanisms for facilitating the licensing of technology that is the focus of National Laboratory employees who participate in the program.

(d) REPORT.—In accordance with section 9007 of division Z of the Consolidated Appropriations Act, 2021 (Public Law 116–260), the Secretary shall report annually on the utilization of this authority at National Laboratories, including the number of employees who participate in this program at each National Laboratory and the

number of employees who take a permanent leave from their positions at National Laboratories as a result of participating in this program.

(e) FEDERAL ETHICS.—Nothing in this section shall affect existing Federal ethics rules applicable to Federal personnel.

SEC. 10720. NATIONAL LABORATORY NON-FEDERAL EMPLOYEE OUTSIDE EMPLOYMENT AUTHORITY.

(a) IN GENERAL.—The Secretary shall delegate to Directors of National Laboratories the authority to allow their non-Federal employees—

(1) to engage in outside employment, including start-up companies based on licensing technologies developed at National Laboratories and consulting in their areas of expertise, and receive compensation from such entities; and

(2) to engage in outside activities related to their areas of expertise at the National Laboratory and may allow employees, in their employment capacity at such outside employment, to access the National Laboratories under the same contracting mechanisms as non-Laboratory employees and entities, in accordance with appropriate conflict of interest protocols.

(b) REQUIREMENTS.—If a Director elects to use the authority granted by subsection (a) of this section, the Director, or their designee, shall—

(1) require employees to disclose to and obtain approval from the Director or their designee prior to engaging in any outside employment;

(2) develop and require appropriate conflict of interest protocols for employees that engage in outside employment;

(3) maintain the authority to terminate employees engaging in outside employment if they are found to violate terms, including conflict of interest protocols, mandated by the Director; and

(4) ensure that any such programs or activities are in conformance with the Department's research security policies, including DOE Order 486.1.

(c) ADDITIONAL RESTRICTIONS.—Employees engaging in outside employment may not—

(1) allow such activities to interfere with or impede their duties at the National Laboratory;

(2) engage in activities related to outside employment using National Laboratory government equipment, property, or resources, unless such activities are performed under National Laboratory contracting mechanisms, such as Cooperative Research and Development Agreements or Strategic Partnership Projects, whereby all conflicts of interest requirements apply; or

(3) use their position at a National Laboratory to provide an unfair competitive advantage to an outside employer or start-up activity.

(d) FEDERAL ETHICS.—Nothing in this section shall affect existing Federal ethics rules applicable to Federal personnel.

PART 3—DEPARTMENT OF ENERGY MODERNIZATION

SEC. 10722. OFFICE OF TECHNOLOGY TRANSITIONS.

Section 1001(a) of the Energy Policy Act of 2005 (42 U.S.C. 16391) is amended by adding at the end the following:

''(6) HIRING AND MANAGEMENT.—To carry out the program authorized in this section, the Under Secretary for Science may appoint personnel using the authorities in section 10726 of the Research and Development, Competition, and Innovation Act.

''(7) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out the activities authorized in this section $20,000,000 for each of fiscal years 2023 through 2027.''.

SEC. 10723. MANAGEMENT OF DEPARTMENT OF ENERGY DEMONSTRATION PROJECTS.

Section 41201 of the Infrastructure Investment and Jobs Act (42 U.S.C. 18861) is amended—

(1) in subsection (b), by inserting ''including the Office of Technology Transitions, the Loan Program Office, and all applied program offices,'' after ''Department,'';

(2) in subsection (d), by inserting '', including by using the authorities in section 10726 of the Research and Development, Competition, and Innovation Act,'' after ''personnel'';

(3) by redesignating subsections (e), (f), and (g) as subsections (g), (h), and (i), respectively;

(4) by adding after subsection (d) the following:

''(e) ADDITIONAL AUTHORITY.—The Secretary may solicit, select, and manage covered projects directly through the program.

''(f) PROJECT TERMINATION.—Should an ongoing covered project receive an unfavorable review under subsection (c)(5), the Secretary or their designee may cease funding the covered project and reallocate the remaining funds to new or existing covered projects carried out by that program office.''; and

(5) in subsection (h)(1) (as so redesignated), by striking ''The Secretary'' and inserting ''In accordance with section 9007 of division Z of the Consolidated Appropriations Act, 2021 (Public Law 116–260), the Secretary''.

SEC. 10724. STREAMLINING PRIZE COMPETITIONS.

(a) REPORTING.—Section 1008 of the Energy Policy Act of 2005 (42 U.S.C. 16396) is amended by adding at the end the following:

''(h) REPORT.—In accordance with section 9007 of division Z of the Consolidated Appropriations Act, 2021 (Public Law 116–260), the Secretary shall report annually on a description of any prize competitions carried out using the authority under this section, the total amount of prizes awarded along with any private sector contributions, the methods used for solicitation and evaluation, and a description of how each prize competition advanced the mission of the Department.''.

(b) TECHNICAL AMENDMENT.—Section 1008 of the Energy Policy Act of 2005 (42 U.S.C. 16396) is amended by redesignating the second subsection (e) (relating to authorization of appropriations) as subsection (f).

SEC. 10725. COST-SHARE WAIVER EXTENSION.

(a) IN GENERAL.—Section 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352) is amended in subsection (b)(4)(B) by striking ''this paragraph'' and inserting ''the Research and Development, Competition, and Innovation Act''.

(b) REPORT.—Section 108(b) of the Department of Energy Research and Innovation Act is amended in subsection (b) by striking ''this Act'' each place it appears and inserting ''the Research and Development, Competition, and Innovation Act''.

SEC. 10726. SPECIAL HIRING AUTHORITY FOR SCIENTIFIC, ENGINEERING, AND PROJECT MANAGEMENT PERSONNEL.

(a) IN GENERAL.—The Under Secretary for Science shall have the authority to—

(1) make appointments of not more than 60 scientific, engineering, and professional personnel, without regard to civil service laws, to assist the Department in meeting specific project or research needs;

(2) fix the basic pay of any employee appointed under this section at a rate to be determined by the Under Secretary at rates not in excess of Level II of the Executive Schedule (EX–II) under section 5311 of title 5, United States Code without regard to the civil service laws; and

(3) pay any employee appointed under this section payments in addition to basic pay, except that the total amount of additional payments paid to an employee under this subsection for any 12-month period shall not exceed the lesser of the following amounts:

(A) $25,000.

(B) The amount equal to 25 percent of the annual rate of basic pay of that employee.

(C) The amount of the limitation that is applicable for a calendar year under section 5307(a)(1) of title 5, United States Code.

(b) TERM.—

(1) IN GENERAL.—The term of any employee appointed under this section shall not exceed 3 years unless otherwise authorized in law.

(2) TERMINATION.—The Under Secretary for Science shall have the authority to terminate any employee appointed under this section at any time based on performance or changing project or research needs of the Department.

SEC. 10727. TECHNOLOGY TRANSFER REPORTS AND EVALUATION.

Section 9007 of division Z of the Consolidated Appropriations Act, 2021 (Public Law 116–260) is amended as follows:

''(a) ANNUAL REPORT.—As part of the updated technology transfer execution plan required each year under section 1001(h)(2) of the Energy Policy Act of 2005 (42 U.S.C. 16391(h)(2)), the Secretary of Energy (in this section referred to as the 'Secretary') shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report on the progress and implementation of programs established under sections 9001, 9002, 9003, 9004, and 9005 of this Act and under sections 10714, 10718, 10719, 10720, and 10723 of the Research and Development, Competition, and Innovation Act.

''(b) EVALUATION.—Not later than 3 years after the enactment of this Act and every 3 years thereafter the Secretary shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate an evaluation on the extent to which programs established under sections 9001, 9002, 9003, 9004, and 9005 of this Act and sections 10713, 10714, 10715, and 10717 of the Research and Development, Competition, and Innovation Act are achieving success based on relevant short-term and long-term metrics.''.

Subtitle K—Micro Act

SEC. 10731. MICROELECTRONICS RESEARCH FOR ENERGY INNOVATION.

(a) DEFINITIONS.—In this section:

(1) CENTER.—The term ''Center'' means a Microelectronics Science Research Center established pursuant to subsection (d).

(2) DEPARTMENT.—The term ''Department'' means the Department of Energy.

(3) DIRECTOR.—The term ''Director'' means the Director of the Office of Science.

(4) HISTORICALLY BLACK COLLEGE OR UNIVERSITY.—The term ''historically Black college or university'' has the meaning given the term ''part B institution'' in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061).

(5) INSTITUTION OF HIGHER EDUCATION.—The term ''institution of higher education'' has the meaning given the term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

(6) MICROELECTRONICS.—The term ''microelectronics'' means—

(A) a semiconductor and related materials;

(B) processing chemistries;

(C) design technologies;

(D) fabrication technologies;

(E) lithography technologies;

(F) packaging technologies;

(G) a sensor;

(H) a device;

(I) an integrated circuit;

(J) a processor;

(K) computing architecture;

(L) modeling and simulation;

(M) a software tool; and

(N) any other related technology.

(7) MINORITY-SERVING INSTITUTION.—The term ''minority-serving institution'' means—

(A) a Hispanic-serving institution (as defined in section 502(a) of the Higher Education Act of 1965 (20 U.S.C. 1101a(a)));

(B) an Alaska Native-serving institution (as defined in section 317(b) of the Higher Education Act of 1965 (20 U.S.C. 1059d(b)));

(C) a Native Hawaiian-serving institution (as defined in that section);

(D) a Predominantly Black Institution (as defined in section 371(c) of the Higher Education Act of 1965 (20 U.S.C. 1067q(c)));

(E) an Asian American and Native American Pacific Islander-serving institution (as defined in that section); and

(F) a Native American-serving nontribal institution (as defined in that section).

(8) NATIONAL LABORATORY.—The term ''National Laboratory'' has the meaning given the term in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801).

(9) PROGRAM.—The term ''program'' means the program established under subsection (c)(1).

(10) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(11) SKILLED TECHNICAL WORKFORCE.—The term ''skilled technical workforce'' has the meaning given the term in section 4(b)(3) of the Innovations in Mentoring, Training, and Apprenticeships Act (42 U.S.C. 1862p note; Public Law 115–402).

(12) TRIBAL COLLEGE OR UNIVERSITY.—The term ''Tribal College or University'' has the meaning given the term in section 316 of the Higher Education Act of 1965 (20 U.S.C. 1059c).

(13) WORK-BASED LEARNING.—The term ''work-based learning'' has the meaning given the term in section 3 of the Carl D. Perkins Career and Technical Education Act of 2006 (20 U.S.C. 2302).

(b) FINDINGS.—Congress finds that—

(1) the coming end of Moore's Law presents major technological challenges and opportunities for the United States and has important implications for national security, economic competitiveness, and scientific discovery;

(2) future progress and innovation in microelectronics, and the maintenance of a robust domestic microelectronics supply chain, will require an approach that advances relevant materials science, electronic and photonic device technologies, processing and packaging technologies, manufacturing technologies, circuit, chip, and system architecture, and software system and algorithm development in a codesign fashion;

(3) the National Laboratories possess unique technical expertise and user facilities that are essential to—

(A) overcoming foundational research challenges relevant to the topics described in paragraph (2); and

(B) translating and transferring research outcomes to industry; and

(4) the expertise and user facilities of the National Laboratories described in paragraph (3) will enable the Department to drive advances in microelectronics that are essential to meeting future needs in areas critical to the missions of the Department and the future competitiveness of the domestic microelectronics industry, including high-performance computing, emerging data-centric computing approaches and energy-efficient computing, optical sensors, sources, and wireless networks, and power electronics and electricity delivery systems.

(c) MICROELECTRONICS RESEARCH PROGRAM.—

(1) IN GENERAL.—The Secretary shall carry out a crosscutting program of research, development, and demonstration of microelectronics relevant to the missions of the Department to enable advances and breakthroughs that will—

(A) accelerate underlying research and development for design, development, and manufacturability of next-generation microelectronics; and

(B) ensure the global competitiveness of the United States in the field of microelectronics.

(2) RESEARCH PROJECTS.—

(A) IN GENERAL.—In carrying out the program, the Secretary shall provide financial assistance to eligible entities described in subparagraph (B) to carry out research projects in—

(i) foundational science areas, including—

(I) materials sciences, chemical sciences, and plasma science synthesis and fabrication;

(II) novel microelectronics devices, including emerging memory and storage technologies;

(III) diverse computing architectures and paradigms, including analog computing and edge computing;

(IV) data-driven modeling and simulation;

(V) integrated sensing, power harvesting, and communications;

(VI) component integration and subsystems;

(VII) photonic integration and packaging; and

(VIII) development of codesign frameworks for all stages of microelectronics design, development, fabrication, and application;

(ii) cybersecurity by design to result in trusted and resilient microelectronics;

(iii) methods for leveraging advanced simulation and artificial intelligence to enhance codesign and discovery in microelectronics;

(iv) in consultation with the National Institute of Standards and Technology, fabrication and processing science and metrology associated with microelectronics manufacturing, including lithography, patterning, surface deposition, etching, and cleaning;

(v) approaches for optimizing system-level energy efficiency of advanced computing systems, the electrical grid, power electronics, and other energy infrastructure;

(vi) approaches for enhancing the durability and lifetime of radiation-hardened electronics;

(vii) enhancement of microelectronics security, including the development of integrated devices, packages, and thermal management for severe environments and national security;

(viii) in coordination with other relevant initiatives of the Department, methods to improve the lifetime, maintenance, recycling, reuse, and sustainability of microelectronics components and systems, including technologies and strategies that reduce the use of energy, water, critical materials, and other commodities that the Secretary determines are vulnerable to disruption; and

(ix) methods and techniques for domestic processing of materials for microelectronics and components of microelectronics.

(B) ELIGIBLE ENTITIES.—An eligible entity referred to in subparagraph (A) is—

(i) an institution of higher education, including a historically Black college or university, a Tribal College or University, and a minority-serving institution;

(ii) a nonprofit research organization;

(iii) a State research agency;

(iv) a National Laboratory;

(v) a private commercial entity;

(vi) a partnership or consortium of 2 or more entities described in clauses (i) through (v); and

(vii) any other entity that the Secretary determines appropriate.

(C) NOTIFICATION.—Not later than 30 days after the Secretary provides financial assistance to an eligible entity under subparagraph (A), the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a notification of the financial assistance provided, including—

(i) the criteria used by the Secretary to select the eligible entity receiving the financial assistance;

(ii) the manner in which the criteria described in clause (i) comport with the purposes of the program described in paragraph (1); and

(iii) a description of the research project that the eligible entity will carry out using the financial assistance.

(3) TECHNOLOGY TRANSFER.—In carrying out the program, the Secretary, in coordination with the Director of the Office of Technology Transitions and in consultation with the private sector, shall—

(A) support translational research and transfer of microelectronics technologies; and

(B) identify emerging research and development needs of industry and government for the benefit of United States economic competitiveness.

(4) WORKFORCE DEVELOPMENT.—In carrying out the program, the Secretary shall support—

(A) workforce development through existing authorities and mechanisms available to the Department, including internships, fellowships, individual investigator grants, and other activities the Secretary determines appropriate; and

(B) in consultation with the National Science Foundation, as appropriate, education and outreach activities—

(i) to disseminate information and promote understanding of microelectronics and related fields among students at elementary school, secondary school, high school, undergraduate, and graduate levels; and

(ii) that may include educational programming with an emphasis on experiential and project-based learning.

(5) OUTREACH.—The Secretary shall conduct outreach to recruit applicants to the program and engage participants from all regions of the United States, especially individuals from underserved communities and groups historically underrepresented in science, technology, engineering, and mathematics.

(6) COORDINATION.—In carrying out the program, the Secretary shall—

(A) coordinate across all relevant programs and offices of the Department; and

(B) coordinate the research carried out under the program relating to microelectronics with activities carried out by other Federal agencies and programs relating to microelectronics research, development, manufacturing, and supply chain security, including the programs authorized under subsections (c) through (f) of section 9906 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4656).

(7) REPORT.—Not later than 180 days after the date of enactment of this Act, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report describing the goals, priorities, and anticipated outcomes of the program.

(8) FUNDING.—There are authorized to be appropriated to the Secretary to carry out this subsection—

(A) $75,000,000 for fiscal year 2023;

(B) $100,000,000 for fiscal year 2024;

(C) $100,000,000 for fiscal year 2025;

(D) $100,000,000 for fiscal year 2026; and

(E) $100,000,000 for fiscal year 2027.

(d) MICROELECTRONICS SCIENCE RESEARCH CENTERS.—

(1) IN GENERAL.—In carrying out the program, subject to the availability of appropriations, the Director shall establish not more than 4 Microelectronics Science Research Centers, each comprising 1 or more eligible entities—

(A) to conduct mission-driven research to address foundational challenges in the design, development, characterization, prototyping, demonstration, and fabrication of microelectronics; and

(B) to facilitate the translation of research results to industry.

(2) ELIGIBLE ENTITIES.—An eligible entity referred to in paragraph (1) is—

(A) a National Laboratory;

(B) an institution of higher education, including a historically Black college or university, a Tribal College or University, and a minority-serving institution;

(C) a private commercial entity;

(D) a research center;

(E) a partnership or consortium of 2 or more entities described in subparagraphs (A) through (D); and

(F) any other entity that the Secretary determines appropriate.

(3) ACTIVITIES.—The activities of a Center shall include research, development, and demonstration activities for—

(A) accelerating the development of new microelectronics science and technology, including materials, devices, circuits, systems, architectures, fabrication tools, processes, diagnostics, modeling, synthesis, and, in consultation with the National Institute of Standards and Technology, metrology;

(B) advancing the sustainability and energy efficiency of new microelectronics devices, packages, and systems;

(C) application-driven codesign and prototyping of novel devices to facilitate laboratory-to-fabrication transition;

(D) advancing knowledge and experimental capabilities in surface and materials science, plasma science, and computational and theoretical methods, including artificial intelligence, multiscale codesign, and advanced supercomputing capabilities to invent and manufacture revolutionary microelectronic devices;

(E) creating technology testbeds for prototyping platforms for validation and verification of new capabilities and sharing of ideas, intellectual property, and the unique facilities of the Department;

(F) supporting development of cybersecurity capabilities for computing architectures that measurably improve safety and security and are adaptable for existing and future applications; and

(G) supporting long-term and short-term workforce development in microelectronics.

(4) REQUEST FOR PROPOSALS; MERIT REVIEW.—

(A) IN GENERAL.—The Director shall, at such time, in such manner, and containing such information as the Director determines to be appropriate, issue a request for proposals from eligible entities described in paragraph (2) seeking to be designated as a Center.

(B) COMPETITIVE MERIT REVIEW.—The Director shall select eligible entities under subparagraph (A) through a competitive, merit-based process.

(5) OPERATION.—

(A) DURATION.—

(i) IN GENERAL.—Each Center shall operate for a period of not more than 5 years, unless renewed for an additional 5-year period in accordance with clause (ii).

(ii) RENEWAL.—

(I) INITIAL RENEWAL.—In the case of a Center that has operated for not more than 5 years, the Director may renew support for the Center on a merit-reviewed basis for a period of not more than 5 years.

(II) 10-YEAR OPERATION.—In the case of a Center that has operated for not less than 5 years but not more than 10 years, the Director may renew support for the Center on a competitive, merit-reviewed basis for a period of not more than 5 years.

(III) 15-YEAR OPERATION.—In the case of a Center that has operated for not less than 10 years but not more than 15 years, the Director may renew support for the Center on a merit-reviewed basis for a period of not more than 5 years.

(B) TERMINATION.—Consistent with the existing authorities of the Department, the Director may terminate an underperforming Center during the performance period.

(6) TECHNOLOGY TRANSFER.—The Director, in coordination with the Director of the Office of Technology Transitions, shall seek to enter into partnerships with industry groups to facilitate the translation and transfer of research results produced by the Centers.

(7) COORDINATION.—The Secretary shall—

(A) establish a coordinating network to coordinate cross-cutting research and foster communication and collaboration among the Centers; and

(B) ensure coordination, and avoid unnecessary duplication, of the activities of each Center with the activities of—

(i) other research entities of the Department, including—

(I) the Nanoscale Science Research Centers;

(II) the National Quantum Information Science Research Centers;

(III) the Energy Frontier Research Centers;

(IV) the Energy Innovation Hubs;

(V) the National Laboratories; and

(VI) other offices of the Department;

(ii) the National Semiconductor Technology Center established under section 9906(c)(1) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (15 U.S.C. 4656(c)(1));

(iii) institutions of higher education;

(iv) industry; and

(v) relevant research activities carried out by other Federal agencies.

(8) WORKFORCE DEVELOPMENT.—Each Center shall support workforce development through—

(A) incorporation of undergraduate students, postdoctoral fellows, graduate students, and early career researchers, as well as elementary school, secondary school, and high school students, through opportunities such as dual-enrollment programs and work-based learning programs, as applicable;

(B) hands-on research and equipment training programs;

(C) technical training and certificate programs for the skilled technical workforce;

(D) facilitation of engagement among academic, industry, and laboratory researchers; and

(E) public outreach activities, including to students at elementary school, secondary school, high school, undergraduate, and graduate levels, which may include educational programming with an emphasis on experiential and project-based learning.

(9) OUTREACH.—The Director shall support the workforce development of Centers under paragraph (8) by conducting outreach to recruit applicants and engage participants from all regions of the United States, especially individuals from underserved communities and groups historically underrepresented in science, technology, engineering, and mathematics.

(10) INTELLECTUAL PROPERTY.—The Secretary shall ensure that the intellectual property and value proposition created by the Centers are retained within the United States.

(11) NOTIFICATION.—

(A) DEFINITION OF COVERED DETERMINATION.—In this paragraph, the term ''covered determination'' means a determination of the Secretary—

(i) to establish a Center under paragraph (1);

(ii) to renew support for a Center under paragraph (5)(A)(ii); or

(iii) to terminate a Center under paragraph (5)(B).

(B) NOTIFICATION.—Not later than 30 days after the Secretary makes a covered determination, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a notification of the covered determination, including—

(i) the criteria used by the Secretary to make the covered determination; and

(ii) the manner in which the criteria described in clause (i) comport with the purposes of the program described in paragraph (1).

(12) FUNDING.—Subject to the availability of appropriations, the Secretary shall use not more than $25,000,000 to fund each Center for each of fiscal years 2023 through 2027.

Subtitle L—National Nuclear University Research Infrastructure Reinvestment

SEC. 10741. SHORT TITLE.

This subtitle may be cited as the ''National Nuclear University Research Infrastructure Reinvestment Act of 2021''.

SEC. 10742. PURPOSES.

The purposes of this subtitle are—

(1) to upgrade the nuclear research capabilities of universities in the United States to meet the research requirements of advanced nuclear energy systems;

(2) to ensure the continued operation of university research reactors;

(3) to coordinate available resources to enable the establishment, including the start and efficient completion of construction, of new nuclear science and engineering facilities; and

(4) to support—

(A) workforce development critical to maintaining United States leadership in nuclear science and engineering and related disciplines; and

(B) the establishment or enhancement of nuclear science and engineering capabilities and other, related capabilities at historically Black colleges and universities, Tribal colleges or universities, minority-serving institutions, EPSCoR universities, junior or community colleges, and associate-degree-granting colleges.

SEC. 10743. UNIVERSITY INFRASTRUCTURE COLLABORATION.

Section 954(a) of the Energy Policy Act of 2005 (42 U.S.C. 16274(a)) is amended—

(1) in paragraph (2) by amending subparagraph (D) to read as follows:

''(D) promote collaborations, partnerships, and knowledge sharing between institutions of higher education, National Laboratories, other Federal agencies, industry, and associated labor unions; and''.

(2) by amending paragraph (4) to read as follow:

''(4) STRENGTHENING UNIVERSITY RESEARCH AND TRAINING REACTORS AND ASSOCIATED INFRASTRUCTURE.—

''(A) IN GENERAL.—In carrying out the program under this subsection, the Secretary may support—

''(i) converting research reactors from high-enrichment fuels to low-enrichment fuels and upgrading operational instrumentation;

''(ii) revitalizing and upgrading existing nuclear science and engineering infrastructure that support the development of advanced nuclear technologies and applications;

''(iii) regional or subregional university-led consortia to—

''(I) broaden access to university research reactors;

''(II) enhance existing university-based nuclear science and engineering infrastructure; and

''(III) provide project management, technical support, quality engineering and inspections, manufacturing, and nuclear material support;

''(iv) student training programs, in collaboration with the United States nuclear industry, in relicensing and upgrading reactors, including through the provision of technical assistance; and

''(v) reactor improvements that emphasize research, training, and education, including through the Innovations in Nuclear Infrastructure and Education Program or any similar program.

''(B) Of any amounts appropriated to carry out the program under this subsection, there is authorized to be appropriated to the Secretary to carry out clauses (ii) and (iii) of subparagraph (A) $55,000,000 for each of fiscal years 2023 through 2027.''.

SEC. 10744. ADVANCED NUCLEAR RESEARCH INFRASTRUCTURE ENHANCEMENT SUBPROGRAM.

Section 954(a) of the Energy Policy Act of 2005 (42 U.S.C. 16274(a)), as amended by section 3, is further amended—

(1) by redesignating paragraphs (5) through (8) as paragraphs (6) through (9), respectively;

(2) by inserting after paragraph (4) the following:

''(5) ADVANCED NUCLEAR RESEARCH INFRASTRUCTURE ENHANCEMENT.—

''(A) IN GENERAL.—The Secretary shall carry out a subprogram to be known as the Advanced Nuclear Research Infrastructure Enhancement Subprogram in order to—

''(i) demonstrate various advanced nuclear reactor and nuclear microreactor concepts;

''(ii) establish medical isotope production reactors or other specialized applications; and

''(iii) advance other research infrastructure that, in the determination of the Secretary, is consistent with the mission of the Department.

''(B) NEW NUCLEAR SCIENCE AND ENGINEERING FACILITIES.—In carrying out the subprogram, the Secretary shall establish—

''(i) not more than 4 new research reactors; and

''(ii) new nuclear science and engineering facilities, as required to address research demand and identified infrastructure gaps.

''(C) LOCATIONS.—New research reactors and facilities established under subparagraph (B) shall be established in a manner that—

''(i) supports the regional or subregional consortia described in paragraph (4)(C); and

''(ii) encourages the participation of—

''(I) historically Black colleges and universities;

''(II) Tribal colleges or universities;

''(III) minority-serving institutions;

''(IV) EPSCoR universities; and

''(V) junior or community colleges.

''(D) FUEL REQUIREMENTS.—New research reactors established under subparagraph (B) shall not use high-enriched uranium, as defined in section 2001 of division Z of the Consolidated Appropriations Act of 2021.

''(E) AUTHORIZATION OF APPROPRIATIONS.—Of any amounts appropriated to carry out the program under this section, there are authorized to be appropriated to the Secretary to carry out the subprogram under this paragraph—

''(i) $45,000,000 for fiscal year 2023;

''(ii) $60,000,000 for fiscal year 2024;

''(iii) $65,000,000 for fiscal year 2025;

''(iv) $80,000,000 for fiscal year 2026; and

''(v) $140,000,000 for fiscal year 2027.''; and

(3) by amending paragraph (9), as redesignated by paragraph (1) of this section, to read as follows:

''(9) DEFINITIONS.—In this subsection:

''(A) JUNIOR FACULTY.—The term 'junior faculty' means a faculty member who was awarded a doctorate less than 10 years before receipt of an award from the grant program described in paragraph (2)(B).

''(B) JUNIOR OR COMMUNITY COLLEGE.—The term 'junior or community college' means—

''(i) a public institution of high education, including additional locations, at which the highest awarded degree, or the predominantly awarded degree, is an associate degree; or

''(ii) any Tribal college or university (as defined in section 316 of the Higher Education Act of 1965 (20 U.S.C. 1059c)).

''(C) EPSCOR UNIVERSITY.—The term 'EPSCoR university' means an institution of higher education located in a State eligible to participate in the program defined in section 502 of the America COMPETES Reauthorization Act of 2010 (42 U.S.C. 1862p note).

''(D) HISTORICALLY BLACK COLLEGE OR UNIVERSITY.—The term 'historically Black college or university' has the meaning given the term 'part B institution' in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061).

''(E) MINORITY-SERVING INSTITUTION.—The term 'minority-serving institution' means a Hispanic-serving institution, an Alaska Native-serving institution, a Native Hawaiian-serving institution, a Predominantly Black Institution, an Asian American and Native American Pacific Islander-serving institution, or a Native American-serving nontribal institution as described in section 371 of the Higher Education Act of 1965 (20 U.S.C. 1067q(a)).

''(F) TRIBAL COLLEGE OR UNIVERSITY.—The term 'Tribal College or University' has the meaning given such term in section 316 of the Higher Education Act of 1965 (20 U.S.C. 1059c).''.

SEC. 10745. SCIENCE EDUCATION AND HUMAN RESOURCES SCHOLARSHIPS, FELLOWSHIPS, AND RESEARCH AND DEVELOPMENT PROJECTS.

(a) IN GENERAL.—The purpose of this section is to support a diverse workforce for the complex landscape associated with effective and equitable development of advanced nuclear energy technologies, including interdisciplinary research to enable positive impacts and avoid potential negative impacts across the lifespan of nuclear energy technologies.

(b) NONTECHNICAL NUCLEAR RESEARCH.—Section 313 of the Omnibus Appropriations Act, 2009 (Public Law 111–8; 42 U.S.C. 16274a) is amended—

(1) in subsection (b)(2), after ''engineering'', by inserting '', which may include nontechnical nuclear research.'';

(2) in subsection (c), by inserting after paragraph (2) the following:

''(3) NONTECHNICAL NUCLEAR RESEARCH.—The term 'nontechnical nuclear research' means research with specializations such as social sciences or law that can support an increase in community engagement, participation, and confidence in nuclear energy systems, including the navigation of the licensing required for advanced reactor deployment, aligned with the objectives in section 951(a)(2) of the Energy Policy Act of 2005 (42 U.S.C. 16271(a)(2)).''; and

(3) in subsection (d)(1), by striking ''$30,000,000'' and inserting ''$45,000,000''.

Subtitle M—Steel Upgrading Partnerships and Emissions Reduction

SEC. 10751. LOW-EMISSIONS STEEL MANUFACTURING RESEARCH PROGRAM.

(a) PROGRAM.—Subtitle D of title IV of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111 et seq.) is amended by inserting after section 454 the following:

''SEC. 454A. LOW-EMISSIONS STEEL MANUFACTURING RESEARCH PROGRAM.

''(a) PURPOSE.—The purpose of this section is to encourage the research and development of innovative technologies aimed at—

''(1) increasing the technological and economic competitiveness of industry and manufacturing in the United States; and

''(2) achieving significant net nonwater greenhouse emissions reductions in the production processes for iron, steel, and steel mill products.

''(b) DEFINITIONS.—In this section:

''(1) COMMERCIALLY AVAILABLE STEELMAKING.—The term 'commercially available steelmaking' means the current production method of iron, steel, and steel mill products.

''(2) CRITICAL MATERIAL.—The term 'critical material' has the meaning given such term in section 7002 of division Z of the Consolidated Appropriations Act, 2021 (Public Law 116–260).

''(3) CRITICAL MINERAL.—The term 'critical mineral' has the meaning given such term in section 7002 of division Z of the Consolidated Appropriations Act, 2021 (Public Law 116–260).

''(4) ELIGIBLE ENTITY.—The term 'eligible entity' means—

''(A) an institution of higher education;

''(B) an appropriate State or Federal entity, including a federally funded research and development center of the Department;

''(C) a nonprofit research institution;

''(D) a private entity;

''(E) any other relevant entity the Secretary determines appropriate; and

''(F) a partnership or consortium of two or more entities described in subparagraphs (A) through (E).

''(5) INSTITUTION OF HIGHER EDUCATION.—The term 'institution of higher education' has the meaning given the term in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001).

''(6) LOW-EMISSIONS STEEL MANUFACTURING.—The term 'low-emissions steel manufacturing' means advanced or commercially available steelmaking with the reduction, to the maximum extent practicable, of net nonwater greenhouse gas emissions to the atmosphere from the production of iron, steel, and steel mill products.

''(c) IN GENERAL.—Not later than 180 days after the date of enactment of the Research and Development, Competition, and Innovation Act, the Secretary shall establish a program of research, development, demonstration, and commercial application of advanced tools, technologies, and methods for low-emissions steel manufacturing.

''(d) REQUIREMENTS.—In carrying out the program under subsection (c), the Secretary shall—

''(1) coordinate this program with the programs and activities authorized in title VI of division Z of the Consolidated Appropriations Act, 2021;

''(2) coordinate across all relevant program offices of the Department, including the Office of Science, Office of Energy Efficiency and Renewable Energy, the Office of Fossil Energy, and the Office of Nuclear Energy;

''(3) leverage, to the extent practicable, the research infrastructure of the Department, including scientific computing user facilities, x-ray light sources, neutron scattering facilities, and nanoscale science research centers; and

''(4) conduct research, development, and demonstration of low-emissions steel manufacturing technologies that have the potential to increase domestic production and employment in advanced and commercially available steelmaking.

''(e) STRATEGIC PLAN.—

''(1) IN GENERAL.—Not later than 180 days after the date of enactment of the Research and Development, Competition, and Innovation Act, the Secretary shall develop a 5-year strategic plan identifying research, development, demonstration, and commercial application goals for the program established in subsection (c). The Secretary shall submit this plan to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate.

''(2) CONTENTS.—The strategic plan submitted under paragraph (1) shall—

''(A) identify programs at the Department related to low-emissions steel manufacturing that support the research, development, demonstration, and commercial application activities described in this section, and the demonstration projects under subsection (h);

''(B) establish technological and programmatic goals to achieve the requirements of subsection (d); and

''(C) include timelines for the accomplishment of goals developed under the plan.

''(3) UPDATES TO PLAN.—Not less than once every two years, the Secretary shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate an updated version of the plan under paragraph (1).

''(f) FOCUS AREAS.—In carrying out the program established in subsection (c), the Secretary shall focus on—

''(1) medium- and high-temperature heat generation technologies used for low-emissions steel manufacturing, which may include—

''(A) alternative fuels, including hydrogen and biomass;

''(B) alternative reducing agents, including hydrogen;

''(C) renewable heat generation technology, including solar and geothermal;

''(D) electrification of heating processes, including through electrolysis; and

''(E) other heat generation sources;

''(2) carbon capture technologies for advanced and commercially available steelmaking processes, which may include—

''(A) combustion and chemical looping technologies;

''(B) use of slag to reduce carbon dioxide emissions;

''(C) pre-combustion technologies; and

''(D) post-combustion technologies;

''(3) smart manufacturing technologies and principles, digital manufacturing technologies, and advanced data analytics to develop advanced technologies and practices in information, automation, monitoring, computation, sensing, modeling, and networking to—

''(A) model and simulate manufacturing production lines;

''(B) monitor and communicate production line status; and

''(C) model, simulate, and optimize the energy efficiency of manufacturing processes;

''(4) technologies and practices that minimize energy and natural resource consumption, which may include—

''(A) designing products that enable reuse, refurbishment, remanufacturing, and recycling;

''(B) minimizing waste from advanced and commercially available steelmaking processes, including through the reuse of waste as resources in other industrial processes for mutual benefit;

''(C) increasing resource efficiency; and

''(D) increasing the energy efficiency of advanced and commercially available steelmaking processes;

''(5) alternative materials and technologies that produce fewer emissions during production and result in fewer emissions during use, which may include—

''(A) innovative raw materials;

''(B) high-performance lightweight materials;

''(C) substitutions for critical materials and critical minerals; and

''(D) other technologies that achieve significant carbon emission reductions in low-emissions steel manufacturing, as determined by the Secretary; and

''(6) high-performance computing to develop advanced materials and manufacturing processes contributing to the focus areas described in paragraphs (1) through (5), including—

''(A) modeling, simulation, and optimization of the design of energy efficient and sustainable products; and

''(B) the use of digital prototyping and additive manufacturing to enhance product design.

''(g) TESTING AND VALIDATION.—The Secretary, in consultation with the Director of the National Institute of Standards and Technology, shall support the development of standardized testing and technical validation of advanced and commercially available steelmaking and low-emissions steel manufacturing through collaboration with one or more National Laboratories, and one or more eligible entities.

''(h) DEMONSTRATION.—

''(1) ESTABLISHMENT.—Not later than 180 days after the date of enactment of the Research and Development, Competition, and Innovation Act, the Secretary, in carrying out the program established in subsection (c), and in collaboration with industry partners, institutions of higher education, and the National Laboratories, shall support an initiative for the demonstration of low-emissions steel manufacturing, as identified by the Secretary, that uses either—

''(A) a single technology; or

''(B) a combination of multiple technologies.

''(2) SELECTION REQUIREMENTS.—Under the initiative established under paragraph (1), the Secretary shall select eligible entities to carry out demonstration projects and to the maximum extent practicable—

''(A) encourage regional diversity among eligible entities, including participation by rural States;

''(B) encourage technological diversity among eligible entities; and

''(C) ensure that specific projects selected—

''(i) expand on the existing technology demonstration programs of the Department; and

''(ii) prioritize projects that leverage matching funds from non-Federal sources.

''(3) REPORTS.—The Secretary shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate—

''(A) not less frequently than once every two years for the duration of the demonstration initiative under this subsection, a report describing the performance of the initiative; and

''(B) if the initiative established under this subsection is terminated, an assessment of the success of, and education provided by, the measures carried out by recipients of financial assistance under the initiative.

''(i) ADDITIONAL COORDINATION.—

''(1) MANUFACTURING U.S.A.—In carrying out this section the Secretary shall consider—

''(A) leveraging the resources of relevant existing Manufacturing USA Institutes described in section 34(d) of the National Institute of Standards and Technology Act (15 U.S.C. 278s(d));

''(B) integrating program activities into a relevant existing Manufacturing USA Institute; or

''(C) establishing a new institute focused on low-emissions steel manufacturing.

''(2) OTHER FEDERAL AGENCIES.—In carrying out this section, the Secretary shall coordinate with other Federal agencies that are carrying out research and development initiatives to increase industrial competitiveness and achieve significant net nonwater greenhouse emissions reductions through low-emissions steel manufacturing, including the Department of Defense, Department of Transportation, and the National Institute of Standards and Technology.''.

(b) CLERICAL AMENDMENT.—Section 1(b) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17001 note) is amended in the table of contents by inserting after the item relating to section 454 the following:

''Sec. 454A. Low-Emissions Steel Manufacturing Research Program.''.

Subtitle N—Applied Laboratories Infrastructure Restoration and Modernization

SEC. 10761. APPLIED LABORATORIES INFRASTRUCTURE RESTORATION AND MODERNIZATION.

(a) DEFINITION OF NATIONAL LABORATORY.—In this section, the term ''National Laboratory'' means—

(1) the National Renewable Energy Laboratory;

(2) the National Energy Technology Laboratory;

(3) the Idaho National Laboratory;

(4) the Savannah River National Laboratory;

(5) the Sandia National Laboratories;

(6) the Los Alamos National Laboratory; and

(7) the Lawrence Livermore National Laboratory.

(b) RESTORATION AND MODERNIZATION PROJECTS.—

(1) IN GENERAL.—The Secretary shall fund projects described in paragraph (2) as needed to address the deferred maintenance, critical infrastructure needs, and modernization of National Laboratories.

(2) PROJECTS DESCRIBED.—The projects referred to in paragraph (1) are, as determined by the Secretary—

(A) priority deferred maintenance projects at National Laboratories, including facilities sustainment for, upgrade of, and construction of research laboratories, administrative and support buildings, utilities, roads, power plants, and any other critical infrastructure; and

(B) lab modernization projects at National Laboratories, including projects relating to core infrastructure needed—

(i) to support existing and emerging science missions with new and specialized requirements for world-leading scientific user facilities and computing capabilities; and

(ii) to maintain safe, efficient, reliable, and environmentally responsible operations, including pilot projects to demonstrate net-zero emissions with resilient operations.

(3) APPROACH.—In carrying out paragraph (1), the Secretary shall use all available approaches and mechanisms, as the Secretary determines to be appropriate, including—

(A) capital line items;

(B) minor construction projects;

(C) energy savings performance contracts;

(D) utility energy service contracts;

(E) alternative financing; and

(F) expense funding.

(c) SUBMISSION TO CONGRESS.—For each fiscal year through fiscal year 2027, at the same time as the annual budget submission of the President, the Secretary shall submit to the Committee on Appropriations and the Committee on Energy and Natural Resources of the Senate and the Committee on Appropriations and the Committee on Science, Space, and Technology of the House of Representatives a list of projects for which the Secretary will provide funding under this section, including a description of each project and the funding profile for the project.

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out the activities described in this section $800,000,000 for each of fiscal years 2023 through 2027, of which, in each fiscal year—

(1) $640,000,000 is authorized to be appropriated for projects at National Laboratories described in paragraphs (1) through (4) of subsection (a); and

(2) $160,000,000 is authorized to be appropriated for projects at National Laboratories described in paragraphs (5) through (7) of that subsection.

Subtitle O—Department of Energy Research, Development, and Demonstration Activities

SEC. 10771. DEPARTMENT OF ENERGY RESEARCH, DEVELOPMENT, AND DEMONSTRATION ACTIVITIES.

For the purpose of carrying out research, development, and demonstration activities and addressing energy-related supply chain activities in the key technology focus areas (as described in section 10387), there are authorized to be appropriated the following amounts:

(1) OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY.—In addition to amounts otherwise authorized to be appropriated or made available, there are authorized to be appropriated to the Secretary of Energy (referred to in this section as the ''Secretary''), acting through the Office of Energy Efficiency and Renewable Energy, for the period of fiscal years 2023 through 2026—

(A) $1,200,000,000 to carry out building technologies research, development, and demonstration activities;

(B) $1,200,000,000 to carry out sustainable transportation research, development, and demonstration activities;

(C) $1,000,000,000 to carry out advanced manufacturing research, development, and demonstration activities, excluding activities carried out pursuant to subparagraph (D);

(D) $1,000,000,000 to carry out section 454 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17113);

(E) $600,000,000 to carry out advanced materials research, development, and demonstration activities, including relating to upcycling, recycling, and biobased materials; and

(F) $800,000,000 to carry out renewable power research, development, and demonstration activities.

(2) OFFICE OF ELECTRICITY.—In addition to amounts otherwise authorized to be appropriated or made available, there is authorized to be appropriated to the Secretary, acting through the Office of Electricity, for the period of fiscal years 2023 through 2026, $1,000,000,000 to carry out electric grid modernization and security research, development, and demonstration activities.

(3) OFFICE OF CYBERSECURITY, ENERGY SECURITY, AND EMERGENCY RESPONSE.—In addition to amounts otherwise authorized to be appropriated or made available, there is authorized to be appropriated to the Secretary, acting through the Office of Cybersecurity, Energy Security, and Emergency Response, for the period of fiscal years 2023 through 2026, $800,000,000 to carry out cybersecurity and energy system physical security research, development, and demonstration activities.

(4) OFFICE OF NUCLEAR ENERGY.—In addition to amounts otherwise authorized to be appropriated or made available, there is authorized to

be appropriated to the Secretary, acting through the Office of Nuclear Energy, for the period of fiscal years 2023 through 2026, $400,000,000 to carry out advanced materials research, development, and demonstration activities.

(5) OFFICE OF ENVIRONMENTAL MANAGEMENT.—In addition to amounts otherwise authorized to be appropriated or made available, there is authorized to be appropriated to the Secretary, acting through the Office of Environmental Management, for the period of fiscal years 2023 through 2026, $200,000,000 to carry out research, development, and demonstration activities, including relating to artificial intelligence and information technology.

(6) OFFICE OF FOSSIL ENERGY AND CARBON MANAGEMENT.—In addition to amounts otherwise authorized to be appropriated or made available, there are authorized to be appropriated to the Secretary, acting through the Office of Fossil Energy and Carbon Management, for the period of fiscal years 2023 through 2026—

(A) $600,000,000 to carry out clean industrial technologies research, development, and demonstration activities pursuant to section 454 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17113);

(B) $200,000,000 to carry out alternative fuels research, development, and demonstration activities; and

(C) $1,000,000,000 to carry out carbon removal research, development, and demonstration activities.

(7) ADVANCED RESEARCH PROJECTS AGENCY—ENERGY.—In addition to amounts otherwise authorized to be appropriated or made available, there is authorized to be appropriated to the Secretary, acting through the Director of the Advanced Research Projects Agency—Energy established under section 5012 of the America COMPETES Act (42 U.S.C. 16538), for the period of fiscal years 2023 through 2026, $1,200,852,898 to carry out activities of the Advanced Research Projects Agency—Energy.

Subtitle P—Fission for the Future

SEC. 10781. ADVANCED NUCLEAR TECHNOLOGIES FEDERAL RESEARCH, DEVELOPMENT, AND DEMONSTRATION PROGRAM.

(a) DEFINITIONS.—In this section:

(1) ADVANCED NUCLEAR REACTOR.—The term ''advanced nuclear reactor'' has the meaning given the term in section 951(b) of the Energy Policy Act of 2005 (42 U.S.C. 16271(b)).

(2) ELIGIBLE ENTITY.—The term ''eligible entity'' means each of—

(A) a State;

(B) an Indian Tribe (as defined in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5304));

(C) a Tribal organization (as defined in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5304));

(D) a unit of local government;

(E) an electric utility (as defined in section 3 of the Federal Power Act (16 U.S.C. 796));

(F) a National Laboratory (as defined in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801));

(G) an institution of higher education (as defined in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a))); and

(H) a private entity specializing in—

(i) advanced nuclear technology development;

(ii) nuclear supply chains; or

(iii) with respect to nuclear technologies and nonelectric applications of nuclear technologies, construction, project financing, contract structuring and risk allocation, or regulatory and licensing processes.

(3) PROGRAM.—The term ''program'' means the program established under subsection (b)(1).

(4) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(b) ESTABLISHMENT OF PROGRAM.—

(1) IN GENERAL.—The Secretary shall establish a program to provide Federal financial assistance to eligible entities to support the research, development, and demonstration of advanced nuclear reactors.

(2) COMPETITIVE PROCEDURES.—To the maximum extent practicable, the Secretary shall carry out the program using a competitive, merit-based review process that is consistent with section 989 of the Energy Policy Act of 2005 (42 U.S.C. 16353).

(c) APPLICATIONS.—An eligible entity desiring Federal financial assistance under the program shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require.

(d) PRIORITY.—In selecting eligible entities to receive Federal financial assistance under the program, the Secretary shall give priority to eligible entities that—

(1) plan to carry out projects at or near the site of 1 or more fossil fuel electric generation facilities that are retired or scheduled to retire, including multi-unit facilities that are partially shut down—

(A) to support the productive reuse of fossil fuel electric generation facilities that are retired or scheduled to retire; and

(B) to sustain and revitalize communities impacted by the closure of fossil fuel electric generation facilities;

(2) plan to support nonelectric applications, including supplying heat for—

(A) energy storage;

(B) hydrogen or other liquid and gaseous fuel or chemical production;

(C) industrial processes;

(D) desalination technologies and processes;

(E) isotope production;

(F) district heating; and

(G) other applications, as the Secretary determines to be appropriate; and

(3) have implemented or demonstrated the ability to successfully implement workforce training or retraining programs to train workers to perform activities relating to the research, development, and demonstration of advanced nuclear reactors.

(e) COST SHARE.—Section 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352) shall apply to Federal financial assistance provided under the program.

(f) AUTHORIZATION OF APPROPRIATIONS.—In addition to amounts otherwise available, there are authorized to be appropriated to the Secretary to carry out the program—

(1) $75,000,000 for fiscal year 2023;

(2) $100,000,000 for fiscal year 2024;

(3) $150,000,000 for fiscal year 2025;

(4) $225,000,000 for fiscal year 2026; and

(5) $250,000,000 for fiscal year 2027.

TITLE VII—NATIONAL AERONAUTICS AND SPACE ADMINISTRATION AUTHORIZATION ACT

SEC. 10801. SHORT TITLE.

This title may be cited as the ''National Aeronautics and Space Administration Authorization Act of 2022''.

SEC. 10802. DEFINITIONS.

In this title:

(1) ADMINISTRATION.—The term ''Administration'' means the National Aeronautics and Space Administration.

(2) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the National Aeronautics and Space Administration.

(3) APPROPRIATE COMMITTEES OF CONGRESS.—Except as otherwise expressly provided, the term ''appropriate committees of Congress'' means—

(A) the Committee on Commerce, Science, and Transportation of the Senate; and

(B) the Committee on Science, Space, and Technology of the House of Representatives.

(4) CISLUNAR SPACE.—The term ''cislunar space'' means the region of space beyond low-Earth orbit out to and including the region around the surface of the Moon.

(5) DEEP SPACE.—The term ''deep space'' means the region of space beyond low-Earth orbit, including cislunar space.

(6) DEVELOPMENT COST.—The term ''development cost'' has the meaning given the term in section 30104 of title 51, United States Code.

(7) GOVERNMENT ASTRONAUT.—The term ''government astronaut'' has the meaning given the term in section 50902 of title 51, United States Code.

(8) ISS.—The term ''ISS'' means the International Space Station.

(9) LOW-ENRICHED URANIUM.—The term ''low-enriched uranium'' means uranium having an assay greater than the assay for natural uranium but less than 20 percent of the uranium–235 isotope.

(10) NASA.—The term ''NASA'' means the National Aeronautics and Space Administration.

(11) ORION.—The term ''Orion'' means the multipurpose crew vehicle described in section 303 of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18323).

(12) OSTP.—The term ''OSTP'' means the Office of Science and Technology Policy.

(13) SPACE FLIGHT PARTICIPANT.—The term ''space flight participant'' has the meaning given the term in section 50902 of title 51, United States Code.

(14) SPACE LAUNCH SYSTEM.—The term ''Space Launch System'' means the Space Launch System authorized under section 302 of the National Aeronautics and Space Administration Act of 2010 (42 U.S.C. 18322).

(15) UNMANNED AIRCRAFT; UNMANNED AIRCRAFT SYSTEM.—The terms ''unmanned aircraft'' and ''unmanned aircraft system'' have the meanings given those terms in section 44801 of title 49, United States Code.

Subtitle A—Exploration

SEC. 10811. MOON TO MARS.

(a) SENSE OF CONGRESS.—It is the sense of Congress that—

(1) advances in space technology and space exploration capabilities—

(A) ensure the long-term technological preeminence, economic competitiveness, STEM workforce development, and national security of the United States; and

(B) offer profound inspirational value for future generations;

(2) the Artemis missions—

(A) will make further progress on advancing the human exploration roadmap to achieve human presence beyond low-Earth orbit to the surface of Mars, as required under section 432 of the National Aeronautics and Space Administration Transition Authorization Act of 2017 (Public Law 115–10; 51 U.S.C. 20302 note);

(B) should fulfill the goal of landing United States astronauts, including the first woman and the next man, on the Moon; and

(C) should seek collaboration with commercial and international partners to establish sustainable lunar exploration, and should fund any sustainable lunar activities not directly required for the advancement of a human mission to Mars separately;

(3) in carrying out the Artemis missions, the Administrator should ensure that the entire Artemis program is inclusive and representative of all people of the United States, including women and minorities;

(4) safe and successful execution of the roadmap to achieve human presence on Mars, including the Artemis missions, requires—

(A) a clear strategic vision for achieving lunar and Mars exploration that is shared by NASA, international partners, nongovernmental partners, Congress, and the people of the United States;

(B) a well-developed and executable timeline, budget, and mission architecture, to inform decisions, including decisions relating to workforce and infrastructure needs and the development of technical and nontechnical skills;

(C) consistent NASA oversight of all relevant exploration activities, enabled by NASA leadership with authority, responsibility, and accountability for decisions and well-developed

capabilities for systems engineering and integration;

(D) clearly defined roles for NASA, international partners, and nongovernmental partners, including criteria for determining whether NASA should make, manage, or buy key capabilities; and

(E) mechanisms to ensure NASA insight into the activities of its international and nongovernmental partners, as required to identify and mitigate risks to mission safety and success.

(b) MOON TO MARS OFFICE AND PROGRAM.—

(1) MOON TO MARS OFFICE.—Not later than 120 days after the date of the enactment of this Act, the Administrator shall establish within the Exploration Systems Development Mission Directorate a Moon to Mars Program Office (referred to in this section as the ''Office'') to lead and manage the Moon to Mars program established under paragraph (2), including Artemis missions and activities.

(2) MOON TO MARS PROGRAM.—

(A) ESTABLISHMENT.—Not later than 120 days after the date of the enactment of this Act, the Administrator shall establish a Moon to Mars Program (referred to in this section as the ''Program'') in accordance with sections 20302(b) and 70504 of title 51, United States Code, which shall include Artemis missions and activities, to achieve the goal of human exploration of Mars.

(B) ELEMENTS.—The Program shall include the following elements:

(i) The Space Launch System under section 20302 of title 51, United States Code.

(ii) The Orion crew vehicle under such section.

(iii) Exploration Ground Systems.

(iv) An outpost in orbit around the Moon under section 70504 of such title.

(v) Human-rated landing systems.

(vi) Spacesuits.

(vii) Any other element needed to meet the requirements for the Program.

(C) DIRECTION.—The Administrator shall ensure that—

(i) each Artemis mission demonstrates or advances a technology or operational concept that will enable human missions to Mars;

(ii) the Program incorporates each such mission into the human exploration roadmap under section 432 of the National Aeronautics and Space Administration Transition Authorization Act of 2017 (Public Law 115–10; 51 U.S.C. 20302 note); and

(iii) the Program includes cislunar space exploration activities that—

(I) use a combination of launches of the Space Launch System and space transportation services from United States commercial providers, as appropriate, for each such mission;

(II) plan for not fewer than 1 Space Launch System launch annually beginning after the first successful crewed launch of Orion on the Space Launch System, with a goal of 2 Space Launch System launches annually as soon as practicable; and

(III) establish an outpost in orbit around the Moon that—

(aa) demonstrates technologies, systems, and operational concepts directly applicable to the space vehicle that will be used to transport humans to Mars;

(bb) has the capability for periodic human habitation; and

(cc) functions as a point of departure, return, or staging for missions to multiple locations on the lunar surface or other destinations.

(3) DIRECTOR.—

(A) IN GENERAL.—The Administrator shall appoint a Director for the Program, who shall lead the Office and report to the Associate Administrator of the Exploration Systems Development Mission Directorate.

(B) ACCOUNTABILITY.—The Director shall have accountability for risk management and shall have authority, as consistent with NASA Space Flight Program and Project Management requirements—

(i) to implement—

(I) Program-level requirements; and

(II) an architecture and program plan developed to meet such requirements;

(ii) to manage resources, personnel, and contracts necessary to implement the Program, as appropriate;

(iii) to manage cost, risk, schedule, and performance factors;

(iv) to direct and oversee a Program-wide systems engineering and integration and integrated risk management function; and

(v) to carry out other authorities, in accordance with Administration policies and procedures.

(C) RESPONSIBILITIES.—The Director shall be responsible for—

(i) developing and managing—

(I) an integrated master plan, integrated master schedule, and integrated risk management procedures for the Program;

(II) a Program-wide systems engineering and integration function as described in subsection (c);

(III) plans for technology and capabilities development;

(IV) logistics support, science data management, communications, and other plans that are relevant to the functions of the Office; and

(V) performance measures to assess the progress of the Program;

(ii) advising the Associate Administrator of the Exploration Systems Development Mission Directorate on the development of—

(I) Program-level requirements, including for a human Mars orbital mission and a human mission to the surface of Mars; and

(II) an architecture based on the requirements described in subclause (I); and

(iii) informing the Associate Administrator of the Administration on coordination among NASA centers, as required to most efficiently achieve the goals of the Program.

(c) SYSTEMS ENGINEERING AND INTEGRATION.—The Director of the Office shall—

(1) establish within the Office a Program-wide systems engineering and integration function; and

(2) appoint a manager for such function to manage systems engineering and integration activities across the Program, including with respect to the Program elements described in subsection (b)(2).

(d) IMPLEMENTATION.—In the implementation of the Program, the Administrator shall ensure that—

(1) for the purposes of reducing risk and complexity and making the maximum use of taxpayer investments to date, in conducting Artemis activities, the Administration does not take any action in regard to the design of the Exploration Upper Stage-enhanced Space Launch System that would preclude it from carrying an integrated human-rated lunar landing system for crewed lunar landing missions;

(2) the Program maintains a robust series of ground-based and in-flight testing activities, including, with respect to each crewed system design, not less than 1 uncrewed flight test, followed by a crewed flight test, as appropriate, prior to use of the design on a human-rated lunar landing system or Mars mission; and

(3) human lunar landing missions under the Program, including surface and in-space activities, are carried out solely by government astronauts.

(e) STUDY.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a report detailing—

(1) progress towards the establishment of—

(A) the Office, the Program, and the Program architecture; and

(B) the integrated master plan, integrated master schedule, and integrated risk management procedures for the Program;

(2) performance measures and milestones for the Program and any interim assessment with respect to such performance measures, as practicable;

(3) initial criteria for determining whether NASA should make, manage, or buy key capabilities within the Program or engage with international partners to access such capabilities;

(4) strategies to ensure consistent insight into the activities of NASA partners, including nongovernmental partners, as required to identify and mitigate mission risks;

(5) progress towards the establishment of a systems engineering and integration function; and

(6) an annual budget profile for resources required to implement the Program during the 5-year period beginning on the date of the enactment of this Act.

SEC. 10812. SPACE LAUNCH SYSTEM CONFIGURATIONS.

(a) EXPLORATION GROUND SYSTEMS INFRASTRUCTURE.—The Administrator shall ensure that—

(1) the necessary elements of a ground system infrastructure are in place to enable the preparation and use of the Space Launch System, specifically the Block 1 (at least 70 mt), Block 1B (at least 105 mt), and Block 2 (at least 130 mt) variants of the Space Launch System; and

(2) not fewer than 2 bays of the vehicle assembly building of such ground system infrastructure are outfitted and dedicated to support Space Launch System stacking and preparations.

(b) FLIGHT RATE AND SAFETY.—After the first crewed lunar landing of the Administration's Moon to Mars activities, the Administrator shall, to the extent practicable, seek to carry out a flight rate of 2 integrated Space Launch System and Orion crew vehicle missions annually until the lunar activities needed to enable a human mission to Mars are completed so as to maintain the critical human spaceflight production and operations skills necessary for the safety of human spaceflight activities in deep space.

(c) MOBILE LAUNCH PLATFORM.—

(1) IN GENERAL.—The Administrator is authorized to maintain 2 operational mobile launch platforms to enable the launch of multiple configurations of the Space Launch System.

(2) SECOND MOBILE LAUNCH PLATFORM.—

(A) IN GENERAL.—In implementing paragraph (1), the Administrator shall take all necessary steps to develop and complete a second mobile launch platform, to be in place by 2026, to support the first launch of the Block 1B variant of the Space Launch System.

(B) REQUIREMENT.—Such second mobile launch platform shall be sized and constructed to accommodate the Block 2 variant of the Space Launch System.

(d) REPORTS.—The Administrator shall submit to Congress—

(1) not later than 45 days after the date of the enactment of this Act, a report on the steps the Administrator and industry partners are taking—

(A) to address the cost, schedule, and performance challenges in the development of the Mobile Launch–2 platform; and

(B) to ensure that such platform is ready for operational use on a schedule that aligns with the current plans for an Artemis IV launch, which is currently anticipated in 2027; and

(2) not later than 90 days after such date of enactment, a report that contains a list of the key milestones required for completing each of the Space Launch System variants, and an estimated date on which such milestones will be completed.

(e) EXPLORATION UPPER STAGE.—

(1) IN GENERAL.—To meet the capability requirements under section 302(c)(2) of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18322(c)(2)), the Administrator shall continue development of the Exploration Upper Stage for the Space Launch System on a schedule consistent with the Artemis IV lunar mission.

(2) BRIEFING.—Not later than 90 days after the date of the enactment of this Act, the Administrator shall brief the appropriate committees of Congress on the development and scheduled availability of the Exploration Upper Stage for the Artemis IV lunar mission.

(f) MAIN PROPULSION TEST ARTICLE.—To meet the requirements under section 302(c)(3) of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18322(c)(3)), the Administrator may initiate development of a main propulsion test article for the integrated Exploration Upper Stage element of the Space Launch System, consistent with cost and schedule constraints, particularly for long-lead propulsion hardware needed for flight.

SEC. 10813. ROCKET ENGINE TEST INFRASTRUCTURE.

(a) IN GENERAL.—The Administrator shall, to the extent practicable, continue to carry out a program to modernize rocket propulsion test infrastructure at NASA facilities—

(1) to increase capabilities;

(2) to enhance safety;

(3) to support propulsion development and testing; and

(4) to foster the improvement of Government and commercial space transportation and exploration.

(b) PROJECTS.—Projects funded under the program described in subsection (a) may include—

(1) infrastructure and other facilities and systems relating to rocket propulsion test stands and rocket propulsion testing;

(2) enhancements to test facility capacity and flexibility; and

(3) such other projects as the Administrator considers appropriate to meet the goals described in that subsection.

(c) REQUIREMENTS.—In carrying out the program under subsection (a), the Administrator shall—

(1) to the extent practicable and appropriate, prioritize investments in projects that enhance test and flight certification capabilities, including for large thrust-level atmospheric and altitude engines and engine systems, and multi-engine integrated test capabilities;

(2) continue to make underutilized test facilities available for commercial use on a reimbursable basis; and

(3) ensure that no project carried out under this program adversely impacts, delays, or defers testing or other activities associated with facilities used for Government programs, including—

(A) the Space Launch System and the Exploration Upper Stage of the Space Launch System;

(B) in-space propulsion to support exploration missions; or

(C) nuclear propulsion testing.

(d) RULE OF CONSTRUCTION.—Nothing in this section shall preclude a NASA program, including the Space Launch System and the Exploration Upper Stage of the Space Launch System, from using the modernized test infrastructure developed under this section.

(e) WORKING CAPITAL FUND STUDY.—

(1) IN GENERAL.—Not later than 1 year after the date of the enactment of this division, the Administrator shall submit to the appropriate committees of Congress a report on the use of the authority under section 30102 of title 51, United States Code, to promote increased use of NASA rocket propulsion test infrastructure for research, development, testing, and evaluation activities by other Federal agencies, firms, associations, corporations, and educational institutions.

(2) MATTERS TO BE INCLUDED.—The report required by paragraph (1) shall include the following:

(A) An assessment of prior use, if any, of the authority under section 30102 of title 51, United States Code, to improve testing infrastructure.

(B) An analysis of any barrier to implementation of such authority for the purpose of promoting increased use of NASA rocket propulsion test infrastructure.

SEC. 10814. PEARL RIVER MAINTENANCE.

(a) IN GENERAL.—The Administrator shall coordinate with the Chief of the Army Corps of Engineers on a comprehensive plan to ensure the continued navigability of the Pearl River and Little Lake channels sufficient to support NASA barge operations surrounding Stennis Space Center and the Michoud Assembly Facility.

(b) REPORT TO CONGRESS.—Not later than 180 days after the date of the enactment of this division, the Administrator shall submit to the appropriate committees of Congress a report on efforts under subsection (a).

(c) APPROPRIATE COMMITTEES OF CONGRESS DEFINED.—In this section, the term ''appropriate committees of Congress'' means—

(1) the Committee on Commerce, Science, and Transportation, the Committee on Environment and Public Works, and the Committee on Appropriations of the Senate; and

(2) the Committee on Science, Space, and Technology, the Committee on Transportation and Infrastructure, and the Committee on Appropriations of the House of Representatives.

SEC. 10815. EXTENSION AND MODIFICATION RELATING TO INTERNATIONAL SPACE STATION.

(a) POLICY.—Section 501(a) of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18351(a)) is amended by striking ''2024'' and inserting ''September 30, 2030''.

(b) MAINTENANCE OF UNITED STATES SEGMENT AND ASSURANCE OF CONTINUED OPERATIONS.—Section 503(a) of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18353(a)) is amended by striking ''September 30, 2024'' and inserting ''September 30, 2030''.

(c) RESEARCH CAPACITY ALLOCATION AND INTEGRATION OF RESEARCH PAYLOADS.—Section 504(d) of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18354(d)) is amended—

(1) in paragraph (1), in the first sentence—

(A) by striking ''As soon as practicable'' and all that follows through ''2011,'' and inserting ''The''; and

(B) by striking ''September 30, 2024'' and inserting ''September 30, 2030''; and

(2) in paragraph (2), in the third sentence, by striking ''September 30, 2024'' and inserting ''September 30, 2030''.

(d) MAINTENANCE OF USE.—

(1) IN GENERAL.—Section 70907 of title 51, United States Code, is amended—

(A) in the section heading, by striking ''**2024**'' and inserting ''**2030**'';

(B) in subsection (a), by striking ''September 30, 2024'' and inserting ''September 30, 2030''; and

(C) in subsection (b)(3), by striking ''September 30, 2024'' and inserting ''September 30, 2030''.

(2) CONFORMING AMENDMENT.—The table of sections for chapter 709 of title 51, United States Code, is amended by striking the item relating to section 70907 and inserting the following:

''70907. Maintaining use through at least 2030.''.

(e) TRANSITION PLAN REPORTS.—Section 50111(c)(2) of title 51, United States Code is amended—

(1) in the matter preceding subparagraph (A), by striking ''2023'' and inserting ''2028''; and

(2) in subparagraph (J), by striking ''2028'' and inserting ''2030''.

(f) ASSESSMENTS AND REPORT.—The Administrator shall—

(1) conduct a comprehensive assessment of the viability of the ISS to operate safely and support full and productive use through 2030, including all necessary analyses to certify ISS operations through 2030;

(2) not later than 180 days after the date of the enactment of this Act, submit to the Aerospace Safety Advisory Panel an assessment of—

(A) the root cause of cracks and air leaks in the Russian Service Module Transfer Tunnel;

(B) the certification of all United States systems and modules to operate through 2030;

(C)(i) an inventory of spares or replacements for elements, systems, and equipment, including systems certified under subparagraph (B), that are currently produced, in inventory, or on order;

(ii) a description of the state of the readiness of such spares and replacements; and

(iii) a schedule for delivery of such spares and replacements to the ISS, including the planned transportation means for such delivery and the estimated cost and schedule for procurement of such spares and replacements and their delivery to the ISS; and

(D) any other relevant data, information, or analysis relevant to the safe and productive use of the ISS through 2030; and

(3) not later than 240 days after the date of the enactment of this Act, submit to the appropriate committees of Congress—

(A) a report on the results of the assessment conducted under paragraph (1); and

(B) a plan to address any recommendations of the Aerospace Safety Advisory Panel, consistent with section 31101(c)(2) of title 51, United States Code, with respect to such assessment.

SEC. 10816. PRIORITIES FOR INTERNATIONAL SPACE STATION.

(a) IN GENERAL.—The Administrator shall assess International Space Station research activities and shall ensure that crew time and resources allocated to the Administration for use on the International Space Station prioritize—

(1) the research of the Human Research Program, including research on and development of countermeasures relevant to reducing human health and performance risks, behavioral and psychological risks, and other astronaut safety risks related to long-duration human spaceflight;

(2) risk reduction activities relevant to exploration technologies, including for the Environmental Control and Life Support System, extravehicular activity and space suits, environmental monitoring, safety, emergency response, and deep space communications;

(3) the advancement of United States leadership in basic and applied space life and physical science research, consistent with the priorities of the most recent space life and physical sciences decadal survey of the National Academies of Sciences, Engineering, and Medicine; and

(4) other research and development activities identified by the Administrator as essential to Moon to Mars activities.

(b) REPORTS.—

(1) ASSESSMENT AND PRIORITIZATION.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a report on—

(A) the assessment; and

(B) the steps taken to achieve the prioritization required by subsection (a).

(2) SPACE FLIGHT PARTICIPANTS.—Not later than 120 days after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a report on measures taken, with respect to space flight participants aboard the ISS, to ensure government astronaut safety, to avoid interference in ISS operations and research priorities, and to prevent undue demands on crew time and resources.

(3) ANNUAL PROGRESS REPORTS.—Concurrent with the annual budget submission of the President to Congress under section 1105(a) of title 31, United States Code, the Administrator shall provide to the appropriate committees of Congress an annual accounting of the use of Administration crew time and ISS resources, including the allocation of such resources toward the priorities described in subsection (a).

SEC. 10817. TECHNICAL AMENDMENTS RELATING TO ARTEMIS MISSIONS.

(a) Section 421 of the National Aeronautics and Space Administration Authorization Act of

2017 (Public Law 115–10; 51 U.S.C. 20301 note) is amended—

(1) in subsection (c)(3)—

(A) by striking ''EM–1'' and inserting ''Artemis I'';

(B) by striking ''EM–2'' and inserting ''Artemis II''; and

(C) by striking ''EM–3'' and inserting ''Artemis III''; and

(2) in subsection (f)(3), by striking ''EM–3'' and inserting ''Artemis III''.

(b) Section 432(b) of the National Aeronautics and Space Administration Authorization Act of 2017 (Public Law 115–10; 51 U.S.C. 20302 note) is amended—

(1) in paragraph (3)(D)—

(A) by striking ''EM–1'' and inserting ''Artemis I''; and

(B) by striking ''EM–2'' and inserting ''Artemis II''; and

(2) in paragraph (4)(C), by striking ''EM–3'' and inserting ''Artemis III''.

Subtitle B—Science

SEC. 10821. SCIENCE PRIORITIES.

(a) SENSE OF CONGRESS ON SCIENCE PORTFOLIO.—It is the sense of Congress that—

(1) a balanced and adequately funded set of activities, consisting of research and analysis grant programs, technology development, suborbital research activities, and small, medium, and large space missions, contributes to a robust and productive science program and serves as a catalyst for innovation and discovery; and

(2) the Research and Analysis programs funded by the Science Mission Directorate are critically important for—

(A) preparing the next generation of space and Earth scientists;

(B) pursuing peer-reviewed cutting-edge research;

(C) maximizing scientific return from the Administration's space and Earth science missions; and

(D) developing innovative techniques and future mission concepts.

(b) GOAL.—The Administrator shall pursue the goal of establishing annual funding for Research and Analysis in the Science Mission Directorate that reaches a level of not less than 10 percent of the total annual funding of relevant divisions of the Science Mission Directorate by fiscal year 2025.

SEC. 10822. SEARCH FOR LIFE.

(a) SENSE OF CONGRESS.—It is the sense of Congress that—

(1) the report entitled ''An Astrobiology Strategy for the Search for Life in the Universe'' published by the National Academies of Sciences, Engineering, and Medicine outlines key scientific questions and methods on the search for the origin, evolution, distribution, and future of life in the universe; and

(2) the interaction of lifeforms with their environment, a central focus of astrobiology research, is a topic of broad significance to life sciences research in space and on Earth.

(b) PROGRAM CONTINUATION.—

(1) IN GENERAL.—The Administrator shall continue to implement a collaborative, multidisciplinary science and technology development program to search for evidence of the existence or historical existence of life beyond Earth in support of—

(A) the scientific priorities of the most recent decadal surveys on planetary science and astrobiology and astronomy and astrophysics of the National Academies of Sciences, Engineering, and Medicine; and

(B) the objective described in section 20102(d)(10) of title 51, United States Code.

(2) ELEMENT.—The program under paragraph (1) shall include activities relating to astronomy, biology, geology, and planetary science.

(3) COORDINATION WITH LIFE SCIENCES PROGRAM.—In carrying out the program under paragraph (1), the Administrator shall coordinate efforts with the life sciences program of the Administration.

(4) INSTRUMENTATION AND SENSOR TECHNOLOGY.—In carrying out the program under paragraph (1), the Administrator may invest in the development of new instrumentation and sensor technology.

(5) TECHNOSIGNATURES.—In carrying out the program under paragraph (1), the Administrator may support, as appropriate, merit-reviewed, competitively selected research on technosignatures.

SEC. 10823. NEXT GENERATION OF ASTROPHYSICS GREAT OBSERVATORIES.

(a) SENSE OF CONGRESS.—It is the sense of Congress that—

(1) NASA's Great Observatories, a suite of space-based telescopes launched over the course of 2 decades and comprised of the Hubble Space Telescope, Compton Gamma-Ray Observatory, Chandra X-Ray Observatory, and Spitzer Space Telescope, have enabled major scientific advances across a broad range of astrophysics disciplines, including with respect to the origins of planets, the formation and evolution of stars and galaxies, fundamental physics, and the structure of the universe;

(2) the decadal survey of the National Academies of Science, Engineering, and Medicine entitled ''Pathways to Discovery in Astronomy and Astrophysics for the 2020s'' recommends a vision to understand the relationships between stars and the bodies that orbit them by ''looking'' at the universe through a range of observations, including radio, optical, gamma rays, neutrinos, and gravitational waves, in order to understand the origin and evolution of galaxies;

(3) the United States and NASA are uniquely poised—

(A) to lead the world in the implementation of the next generation of Great Observatories, as recommended in such decadal survey, including implementation of an observatory to search for biosignatures of exoplanets in the habitable zone;

(B) to address the most compelling scientific questions of the next decade; and

(C) to transform not only our understanding of the universe and the processes and physical paradigms that govern the universe, but also the place of humanity in the universe;

(4) the Administrator should pursue an ambitious astrophysics program that meets the scientific vision of the astronomical community and the transformative capacity of technological innovation; and

(5) in implementing astrophysics research, in order to avoid the major growth in the cost of astrophysics flagship-class missions that has the potential to impact the overall portfolio balance of the Science Mission Directorate, the Administrator should seek to implement lessons learned from previous astrophysics missions, including by—

(A) establishing sufficient cost and schedule reserves;

(B) demonstrating in advance of preliminary design review, as practicable and appropriate, the maturity of necessary technologies through prototype demonstrations in a relevant environment;

(C) providing for regular updates to the cost, schedule, and risk of a project; and

(D) considering, as feasible, the impacts of cost and schedule changes across the Science Mission Directorate.

(b) NANCY GRACE ROMAN TELESCOPE.—

(1) IN GENERAL.—The Administrator shall continue development of the Nancy Grace Roman Space Telescope (commonly known as the ''Roman telescope'' and formerly known as the ''Wide Field Infrared Survey Telescope'') in the configuration established through critical design review, to meet the objectives prioritized in the 2010 decadal survey of astronomy and astrophysics of the National Academies of Sciences, Engineering, and Medicine.

(2) COST AND SCHEDULE.—Section 30104 of title 51, United States Code shall apply to the development of the Roman telescope under paragraph (1).

(3) QUARTERLY REPORTS.—Not less frequently than quarterly, the Administrator shall submit to the appropriate committees of Congress a report on the progress of the development of the Roman telescope and the budget profile and schedule relative to the baseline plan for such development.

SEC. 10824. EARTH SCIENCE MISSIONS AND PROGRAMS.

(a) SENSE OF CONGRESS.—It is the sense of Congress that—

(1) the Earth science and applications program of the Administration provides increasingly valuable data for natural resource management, agriculture, forestry, food security, air quality monitoring, and many other application areas; and

(2) a robust and balanced Earth science and applications program contributes significantly to—

(A) the scientific discovery and economic growth of the United States; and

(B) supporting the health and safety of the people of the United States and the citizens of the world.

(b) REAFFIRMATION.—Congress reaffirms the goal for the Administration's Earth science and applications program set forth in section 60501 of title 51, United States Code, which states: ''The goal for the Administration's Earth Science program shall be to pursue a program of Earth observations, research, and applications activities to better understand the Earth, how it supports life, and how human activities affect its ability to do so in the future. In pursuit of this goal, the Administration's Earth Science program shall ensure that securing practical benefits for society will be an important measure of its success in addition to securing new knowledge about the Earth system and climate change. In further pursuit of this goal, the Administration shall, together with the National Oceanic and Atmospheric Administration and other relevant agencies, provide United States leadership in developing and carrying out a cooperative international Earth observations-based research program.''.

(c) EARTH SCIENCE MISSIONS AND PROGRAMS.—With respect to the missions and programs of the Earth Science Division, the Administrator shall, to the maximum extent practicable, follow the recommendations and guidance provided by the scientific community through the decadal survey for Earth science and applications from space of the National Academies of Sciences, Engineering, and Medicine, including—

(1) the science priorities described in such survey;

(2) the execution of the series of existing or previously planned observations (commonly known as the ''program of record''); and

(3) the development of a range of missions of all classes, including opportunities for principal investigator-led, competitively selected missions.

(d) EARTH SYSTEM OBSERVATORY.—The Administrator shall pursue an Earth System Observatory, which shall consist of an array of new and complementary Earth-observing scientific satellites, instruments, and missions—

(1) to address the recommendations of the 2018 Earth science and applications decadal survey of the National Academies of Sciences, Engineering, and Medicine entitled ''Thriving on our Changing Planet'', including by conducting priority observations in—

(A) aerosols;

(B) cloud convection and precipitation;

(C) mass change;

(D) surface biology and geology;

(E) surface deformation and change; and

(F) other observation areas designated as high-priority by such decadal survey; and

(2) to achieve the goal of the Earth Science Program set forth in section 60501 of title 51, United States Code.

(e) SURVEY OF USE OF EARTH OBSERVATION DATA BY STATES, TRIBES, AND TERRITORIES.—

(1) SURVEY.—The Administrator shall arrange for the conduct of a survey of the use of NASA Earth observation data by States, Tribal organizations, and territories.

(2) SUBMISSION.—Not later than 18 months after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress the results of the survey conducted under paragraph (1).

(f) CLIMATE ARCHITECTURE PLAN.—The Administrator shall—

(1) maintain a comprehensive, strategic Climate Architecture Plan for Earth Observations and Applications from Space that describes an integrated and balanced program of Earth science and applications observations to advance science, policy, and applications and societal benefits; and

(2) update such plan every 5 years so as to align with the release of the decadal surveys in Earth science and applications from space and the mid-decade assessments of the National Academics of Sciences, Engineering, and Medicine.

SEC. 10825. PLANETARY DEFENSE COORDINATION OFFICE.

(a) FINDINGS.—Congress makes the following findings:

(1) Near-Earth objects remain a threat to the United States.

(2) Section 321(d)(1) of the National Aeronautics and Space Administration Authorization Act of 2005 (Public Law 109–155; 119 Stat. 2922; 51 U.S.C. 71101 note prec.), established a requirement that the Administrator plan, develop, and implement a Near-Earth Object Survey program to detect, track, catalogue, and characterize the physical characteristics of near-Earth objects equal to, or greater than, 140 meters in diameter in order to assess the threat of such near-Earth objects to the Earth, with the goal of 90 percent completion of the catalogue of such near-Earth objects by December 30, 2020.

(3) The goal described in paragraph (2) has not be met.

(4) The report of the National Academies of Sciences, Engineering, and Medicine entitled ''Finding Hazardous Asteroids Using Infrared and Visible Wavelength Telescopes'', issued in 2019, states that—

(A) NASA should develop and launch a dedicated space-based infrared survey telescope to meet the requirements of section 321(d)(1) of the National Aeronautics and Space Administration Authorization Act of 2005 (Public Law 109–155; 119 Stat. 2922; 51 U.S.C. 71101 note prec.); and

(B) the early detection of potentially hazardous near-Earth objects enabled by a space-based infrared survey telescope is important to enable deflection of a dangerous asteroid.

(b) MAINTENANCE OF PLANETARY DEFENSE COORDINATION OFFICE.—The Administrator shall maintain an office within the Planetary Science Division of the Science Mission Directorate, to be known as the ''Planetary Defense Coordination Office''—

(1) to plan, develop, and implement a program to survey threats posed by near-Earth objects equal to or greater than 140 meters in diameter, as required by section 321(d)(1) of the National Aeronautics and Space Administration Authorization Act of 2005 (Public Law 109–155; 119 Stat. 2922; 51 U.S.C. 71101 note prec.);

(2) identify, track, and characterize potentially hazardous near-Earth objects, issue warnings of the effects of potential impacts of such objects, and investigate strategies and technologies for mitigating the potential impacts of such objects; and

(3) assist in coordinating government planning for response to a potential impact of a near-Earth object.

(c) DEDICATED SURVEY MISSION.—

(1) SENSE OF CONGRESS.—It is the sense of Congress that—

(A) the Near-Earth Object Surveyor mission, as designed, is anticipated to make significant progress toward carrying out congressional policy and direction, as set forth in section 321(d)(1) of the National Aeronautics and Space Administration Authorization Act of 2005 (Public Law 109–155; 119 Stat. 2922; 51 U.S.C. 71101 note prec.), to detect 90 percent of near-Earth objects equal to, or greater than, 140 meters in diameter; and

(B) the Administrator should prioritize the public safety role of the Near-Earth Object Surveyor mission and should not delay the development and launch of the mission due to cost growth on other planetary science missions.

(2) CONTINUATION OF MISSION.—

(A) IN GENERAL.—The Administrator shall continue the development of a dedicated space-based infrared survey telescope mission, known as the ''Near-Earth Object Surveyor'', on a schedule to achieve a launch-readiness date not later than March 30, 2026, or the earliest practicable date, for the purpose of accomplishing the objectives set forth in section 321(d)(1) of the National Aeronautics and Space Administration Authorization Act of 2005 (Public Law 109–155; 119 Stat. 2922; 51 U.S.C. 71101 note prec.).

(B) CONSIDERATION OF RECOMMENDATIONS.—The design of the mission described in subparagraph (A) shall take into account the recommendations of the 2019 report of the National Academies of Sciences, Engineering, and Medicine entitled ''Finding Hazardous Asteroids Using Infrared and Visible Wavelength Telescopes'', the planetary science decadal survey, and the 2018 United States National Near-Earth Object Preparedness Strategy and Action Plan.

(d) ANNUAL REPORT.—Section 321(f) of the National Aeronautics and Space Administration Authorization Act of 2005 (Public Law 109–155; 119 Stat. 2922; 51 U.S.C. 71101 note prec.) is amended to read as follows:

''(f) ANNUAL REPORT.—Not later than 180 days after the date of the enactment of the National Aeronautics and Space Administration Authorization Act of 2022 and annually thereafter through 90-percent completion of the catalogue required by subsection (d)(1), the Administrator shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report that includes the following:

''(1) A summary of all activities carried out by the Planetary Defense Coordination Office established under section 10825 of the National Aeronautics and Space Administration Authorization Act of 2022 since the date of enactment of that Act.

''(2) A description of the progress with respect to the design, development, and launch of the space-based infrared survey telescope required by section 10825(c) of the National Aeronautics and Space Administration Authorization Act of 2022.

''(3) An assessment of the progress toward meeting the requirements under subsection (d)(1).

''(4) A description of the status of efforts to coordinate and cooperate with other countries to detect hazardous asteroids and comets, plan a mitigation strategy, and implement that strategy in the event of the discovery of an object on a likely collision course with Earth.

''(5) A summary of expenditures for all activities carried out by the Planetary Defense Coordination Office since the date of enactment of the National Aeronautics and Space Administration Authorization Act of 2022''.

(e) NEAR-EARTH OBJECT DEFINED.—In this section, the term ''near-Earth object'' has the meaning given the term in section 321(c) of the National Aeronautics and Space Administration Authorization Act of 2005 (Public Law 109–155; 119 Stat. 2922; 51 U.S.C. 71101 note prec.).

Subtitle C—Aeronautics

SEC. 10831. EXPERIMENTAL AIRCRAFT PROJECTS.

(a) SENSE OF CONGRESS.—It is the sense of Congress that—

(1) developing high-risk, precompetitive aerospace technologies for which there is not yet a profit rationale is a fundamental role of the Administration;

(2) large-scale flight test experimentation and validation are necessary for—

(A) transitioning new technologies and materials, including associated manufacturing processes, for aviation and aeronautics use; and

(B) capturing the full extent of benefits from investments made by the Aeronautics Research Mission Directorate; and

(3) a level of funding that adequately supports large-scale flight test experimentation and validation, including related infrastructure, should be ensured over a sustained period of time to restore the capacity of the Administration—

(A) to see legacy priority programs through to completion; and

(B) to achieve national economic and security objectives.

(b) STATEMENT OF POLICY.—It is the policy of the United States—

(1) to maintain world leadership in—

(A) civilian aeronautical science and technology; and

(B) aerospace industrialization; and

(2) to maintain as a fundamental objective of the aeronautics research of the Administration the steady progression and expansion of flight research and capabilities, including the science and technology of critical underlying disciplines and competencies, such as—

(A) computational-based analytical and predictive tools and methodologies;

(B) aerothermodynamics;

(C) propulsion;

(D) advanced materials and manufacturing processes;

(E) high-temperature structures and materials; and

(F) guidance, navigation, and flight controls.

(c) EXPERIMENTAL AIRCRAFT FLIGHT DEMONSTRATIONS.—

(1) IN GENERAL.—In meeting the objectives described in subsection (b), the Administrator shall carry out experimental aircraft demonstrations, including—

(A) a subsonic demonstrator to demonstrate the performance and feasibility of advanced, ultra-efficient, and low emissions subsonic flight demonstrator configurations;

(B) a low boom flight demonstrator to validate design tools and technologies that can be applied to low sonic boom commercial supersonic aircraft and support the development of a noise-based standard for supersonic overland flight; and

(C) a flight research demonstrator to test the performance and feasibility of advanced, ultra-efficient and net-zero emissions aircraft concepts and configurations.

(2) ELEMENTS.—For each demonstration under paragraph (1), the Administrator shall—

(A) include the development of experimental aircraft and all necessary supporting flight test assets;

(B) pursue a robust technology maturation and flight test validation effort;

(C) improve necessary facilities, flight testing capabilities, and computational tools to support the demonstration;

(D) award any primary contracts for design, procurement, and manufacturing to United States persons, consistent with international obligations and commitments; and

(E) coordinate research and flight test demonstration activities with other Federal agencies and the United States aviation community, as the Administrator considers appropriate.

(3) UNITED STATES PERSON DEFINED.—In this subsection, the term ''United States person'' means—

(A) a United States citizen or an alien lawfully admitted for permanent residence to the United States; or

(B) an entity organized under the laws of the United States or of any jurisdiction within the United States, including a foreign branch of such an entity.

(d) COLLABORATION WITH INDUSTRY AND ACADEMIA.—The Administration shall seek means to expand collaboration with industry and academia on basic research and technology development related to experimental aircraft, and on the experimental aircraft demonstrations required by subsection (c).

(e) ADVANCED MATERIALS AND MANUFACTURING TECHNOLOGY PROGRAM.—

(1) IN GENERAL.—The Administrator may establish an advanced materials and manufacturing technology program—

(A) to develop—

(i) new materials, including composite and high-temperature materials, from base material formulation through full-scale structural validation and manufacture;

(ii) advanced materials and manufacturing processes, including additive manufacturing, to reduce the cost of manufacturing scale-up and certification for use in aeronautics; and

(iii) noninvasive or nondestructive techniques for testing or evaluating aviation and aeronautics structures, including for materials and manufacturing processes;

(B) to reduce the time it takes to design, industrialize, and certify advanced materials and manufacturing processes;

(C) to provide education and training opportunities for the aerospace workforce; and

(D) to address global cost and human capital competitiveness for United States aeronautical industries and technological leadership in advanced materials and manufacturing technology.

(2) ELEMENTS.—In carrying out a program under paragraph (1), the Administrator may—

(A) build on work that was carried out by the Advanced Composites Project of the Administration;

(B) partner with the private and academic sectors, such as members of the Advanced Composites Consortium of the Administration, the Joint Advanced Materials and Structures Center of Excellence of the Federal Aviation Administration, the Manufacturing USA institutes of the Department of Commerce, and national laboratories, as the Administrator considers appropriate;

(C) provide a structure for managing intellectual property generated by the program based on or consistent with the structure established for the Advanced Composites Consortium of the Administration;

(D) ensure adequate Federal cost share for applicable research; and

(E) coordinate with advanced manufacturing and composites initiatives in other mission directorates of the Administration, as the Administrator considers appropriate.

(f) RESEARCH PARTNERSHIPS.—In carrying out the demonstrations under subsection (c) and a program under subsection (e), the Administrator may engage in cooperative research programs with—

(1) academia; and

(2) commercial aviation and aerospace manufacturers.

SEC. 10832. UNMANNED AIRCRAFT SYSTEMS.

(a) UNMANNED AIRCRAFT SYSTEMS OPERATION PROGRAM.—The Administrator shall—

(1) research and test capabilities and concepts, including unmanned aircraft systems communications, for integrating unmanned aircraft systems into the national airspace system;

(2) leverage the partnership NASA has with industry focused on the advancement of technologies for future air traffic management systems for unmanned aircraft systems; and

(3) continue to leverage the research and testing portfolio of NASA to inform the integration of unmanned aircraft systems into the national airspace system, consistent with public safety and national security objectives.

(b) SENSE OF CONGRESS ON COORDINATION WITH FEDERAL AVIATION ADMINISTRATION.—It is the sense of Congress that—

(1) NASA should continue—

(A) to coordinate with the Federal Aviation Administration on research on air traffic management systems for unmanned aircraft systems; and

(B) to assist the Federal Aviation Administration in the integration of air traffic management systems for unmanned aircraft systems into the national airspace system; and

(2) the test ranges (as defined in section 44801 of title 49, United States Code) should continue to be leveraged for research on—

(A) air traffic management systems for unmanned aircraft systems; and

(B) the integration of such systems into the national airspace system.

SEC. 10833. CLEANER, QUIETER AIRPLANES.

(a) INITIATIVE REQUIRED.—Section 40112 of title 51, United States Code, is amended—

(1) by redesignating subsections (b) through (f) as subsections (c) through (g), respectively; and

(2) by inserting after subsection (a) the following:

''(b) RESEARCH AND DEVELOPMENT INITIATIVE ON REDUCTION OF GREENHOUSE GAS AND NOISE EMISSIONS FROM AIRCRAFT.—

''(1) IN GENERAL.—The Administrator shall establish an initiative to research, develop, and demonstrate new technologies and concepts—

''(A) to reduce greenhouse gas emissions from aviation, including carbon dioxide, nitrogen oxides, other greenhouse gases, water vapor, black carbon and sulfate aerosols, and increased cloudiness due to contrail formation;

''(B) to reduce aviation noise emissions; and

''(C) to enable associated aircraft performance characteristics.

''(2) GOALS.—The goals of the initiative required by paragraph (1) shall be—

''(A) to ensure United States leadership in research and technology innovation leading to substantial reductions in aviation noise and greenhouse gas emissions;

''(B) to enhance and expand basic research, and the translation of basic research into applications, that may lead to transformational advances in reducing aviation noise and greenhouse gas emissions;

''(C) to accelerate research and development that contributes to maturing new technologies for reducing aircraft noise and greenhouse gas emissions; and

''(D) to obtain and disseminate associated testing and performance data that facilitates the incorporation of new technologies into commercial aircraft development as soon as practicable.

''(3) OBJECTIVES.—The objectives of the initiative established under paragraph (1) and the goals described in paragraph (2) shall include—

''(A) as soon as practicable, a reduction of greenhouse gas emissions from new aircraft by at least 50 percent, as compared to the highest-performing aircraft technologies in service as of December 31, 2021;

''(B) noise levels from aircraft throughout all phases of flight that do not exceed ambient noise levels in the absence of flight operations in the vicinity of the flight route;

''(C) net-zero greenhouse gas emissions from aircraft by 2050; and

''(D) demonstration of new technologies developed pursuant to such initiative on—

''(i) regional aircraft intended to enter into service by 2030; and

''(ii) single-aisle aircraft designed to accommodate more than 125 passengers intended to enter into service by 2040.''.

(b) TECHNOLOGY FOCUS AREAS.—In carrying out the research and development initiative established under section 40112(b) of title 51, United States Code, the Administrator shall advance research, development, and demonstration projects on promising technologies such as—

(1) advanced subsonic propulsion technology, design, and integration;

(2) electric and hybrid-electric propulsion, including battery electric and hydrogen fuel cell electric systems;

(3) airframe concepts and configurations;

(4) analysis of technology options, including cost-benefit analysis of greenhouse gas and noise emissions reduction technologies;

(5) analytical tools for system-level and system-of-systems-level modeling and integration;

(6) airspace operations improvements;

(7) noise emissions reduction; and

(8) any other effort, as determined by the Administration, that contributes to a sustainable future for aviation.

(c) IMPLEMENTATION.—In implementing the initiative established under section 40112(b) of title 51, United States Code, the Administrator shall, to the extent practicable—

(1) ensure that testing and performance data integrates the results of community acceptance surveys conducted by the Federal Aviation Administration and other relevant studies, including studies on the impacts of new noise effects from novel propulsion systems and from airspace operations changes;

(2) provide testing and performance data on the technologies described in subsection (b) of this section to the Administrator of the Federal Aviation Administration to facilitate the work of the Federal Aviation Administration in identifying new requirements for policy, infrastructure, and administrative capacity necessary to enable the safe integration of such technologies on aircraft;

(3) pursue partnerships with organizations, current commercial production aircraft providers, academic institutions, small businesses, and new entrants, including partnerships to advance research and development activities related to both regional aircraft and aircraft designed to accommodate more than 125 passengers;

(4) include universities, academic institutions, and other research organizations in the partnerships described in paragraph (3);

(5) expand basic research;

(6) ensure equity in research sponsorship of, and partnership opportunities with, underrepresented students, faculty, and minority-serving-institutions;

(7) continue to coordinate with the Secretary of Energy on battery technology research;

(8) make available the research and development carried out under the initiative established under subsection (b) of section 40112 of title 51, United States Code, to help enable an industry-wide shift toward aircraft concepts that reduce greenhouse gas emissions and aircraft noise to achieve the goals and objectives under paragraphs (2) and (3) of that subsection; and

(9) continue to support research, development, and demonstration of aircraft concepts, including systems architecture, materials and components, integration of systems and airframe structures, human factors, airspace planning and operations, and the integration of related advanced technologies and concepts, with the goal of carrying out test flights with integrated subsystems by 2025.

(d) ANNUAL REPORT.—Not later than 1 year after the date of the enactment of this Act, and annually thereafter, the Administrator shall submit to the appropriate committees of Congress a report on the progress of the efforts carried out under the initiative established under subsection (b) of section 40112 of title 51, United States Code, including—

(1) the status of progress on such initiative;

(2) an updated, anticipated timeframe for readiness of technologies and aircraft to be adopted by industry with the emissions reduction levels directed under that subsection; and

(3) an identification of fundamental aeronautics research activities contributing to achieving the goals and objectives of such initiative, as described in paragraphs (2) and (3) of that subsection, and a description of any obstacles to achieving such goals and objectives.

Subtitle D—Space Technology

SEC. 10841. SPACE NUCLEAR CAPABILITIES.

(a) NUCLEAR PROPULSION.—

(1) USE IN ROBOTIC AND HUMAN EXPLORATION ACTIVITIES.—The Administrator, in collaboration with other relevant Federal agencies and with industry, shall take all necessary steps to carry out research and development, ground-based testing and in-space testing, and other associated activities to enable the use of space nuclear propulsion in Administration robotic and human exploration activities, including in cargo missions to Mars in the late 2020's and crewed missions to Mars in the 2030's.

(2) SPACE NUCLEAR PROPULSION PROGRAM.—

(A) IN GENERAL.—The Administrator shall establish a space nuclear propulsion program to carry out the activities described in paragraph (1).

(B) ELEMENTS.—The program established under subparagraph (A) shall include the following:

(i) Research and development in both nuclear electric and nuclear thermal propulsion technology maturation efforts, to the extent practicable, and the development of consistent figures of merit across both nuclear electric and nuclear thermal systems, as recommended by the National Academies of Sciences, Engineering, and Medicine in the report entitled ''Space Nuclear Propulsion for Human Mars Exploration'', so as to inform a down-selection of a nuclear electric or nuclear thermal propulsion system by 2026, or as early as practicable.

(ii) Ground-based testing, to the extent practicable, including not less than 1 ground-based test of a full-scale, integrated nuclear propulsion system before any in-space test or demonstration of such system.

(iii) In-space demonstration of a nuclear propulsion system in the late 2020's, which may be carried out as a cargo mission to Mars.

(3) PLAN.—

(A) IN GENERAL.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a plan to achieve an in-space flight test of a nuclear propulsion system that could support the first crewed mission to Mars in the 2030's.

(B) ELEMENTS.—The plan required by subparagraph (A) shall include the following:

(i) A timeline to mature enabling technologies and an outline of major milestones for integration of such technologies into the larger nuclear propulsion system.

(ii) A cost estimate for maturing such technologies.

(iii) A description of facility requirements for the program under paragraph (2) associated with such technologies.

(iv) A description of the manner in which the Administrator will use the efforts described in paragraph (2)(B) to determine whether the in-space flight test should demonstrate a nuclear electric propulsion system or a nuclear thermal propulsion system.

(C) An identification of any policy or regulatory challenges or barriers to conducting such in-space test or any precursor ground-based testing, and a description of options for addressing such challenges or barriers.

(b) NUCLEAR SURFACE POWER PROGRAM.—

(1) ESTABLISHMENT.—The Administrator shall establish a program for research, testing, and development of a space nuclear surface power reactor design.

(2) PLAN.—

(A) IN GENERAL.—The Administrator shall—

(i) develop a plan and timeline for the program established under paragraph (1), taking into consideration mission needs; and

(ii) include in such plan opportunities for participation by United States commercial entities.

(B) SUBMISSION.—Not later than 1 year after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress the plan developed under subparagraph (A).

(c) ASSESSMENT OF IN-SPACE PROPULSION TESTING FACILITIES.—

(1) IN GENERAL.—The Administrator shall carry out a needs assessment for facilities and technical capabilities required to support ground-based testing of a full-scale, full-power integrated nuclear propulsion system.

(2) ELEMENT.—The assessment required by paragraph (1) shall consider the potential development of facilities that will support long-term research and development of space nuclear propulsion systems.

(3) REPORT.—Not later than 270 days after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a report on the results of the assessment carried out under paragraph (1).

SEC. 10842. PRIORITIZATION OF LOW-ENRICHED URANIUM TECHNOLOGY.

(a) IN GENERAL.—The Administrator shall prioritize the use of low-enriched uranium, including high-assay low-enriched uranium, for space nuclear research and development, including ground and in-space testing and other related demonstration activities carried out under this title.

(b) INTERAGENCY COLLABORATION.—The Administrator shall, to the extent practicable, collaborate and coordinate with the Secretary of Defense, the Secretary of Energy, and the heads of other relevant Federal agencies on technology development, knowledge exchange, lessons learned regarding nuclear power and propulsion technologies, common fuels, flight demonstrations, and operational systems production for space applications.

(c) REPORT ON NUCLEAR TECHNOLOGY PRIORITIZATION.—Not later than 120 days after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a report that details the actions taken and planned, including a timeline for such actions, to implement subsection (a).

Subtitle E—STEM Engagement

SEC. 10851. OFFICE OF STEM ENGAGEMENT.

(a) SENSE OF CONGRESS.—It is the sense of Congress that NASA's inspiring mission, specialized facilities, skilled engineering and scientific workforce, and research activities present unique opportunities for inspiring public engagement in STEM and increasing the number of students pursuing STEM degrees and careers.

(b) ESTABLISHMENT.—The Administrator shall establish an Office of STEM Engagement (referred to in this section as the ''Office'') for the purpose of advancing progress toward the STEM education goals of the United States by enhancing STEM literacy, increasing diversity, equity, and inclusion in STEM, and preparing the STEM workforce for the future.

(c) RESPONSIBILITIES.—The Office established shall be responsible for coordinating efforts and activities among organizations across the Administration, including NASA headquarters, mission directorates, and NASA centers, designed—

(1) to create unique opportunities for students and the public to learn from and contribute to the work of NASA in exploration and discovery;

(2) to contribute to the growth of a diverse STEM workforce; and

(3) to strengthen public understanding of science by enabling connections to the mission and work of NASA.

(d) PORTFOLIO.—The Office shall coordinate and administer—

(1) the National Space Grant College and Fellowship Program under chapter 403 of title 51 United States Code;

(2) the Established Program to Stimulate Competitive Research under section 40903 of title 51 United States Code;

(3) the Minority University Research and Education Project;

(4) the NextGen STEM Project; and

(5) any other program or activity the Administrator considers appropriate.

(e) TECHNICAL AMENDMENTS.—Section 40903 of title 51, United States Code, is amended—

(1) in the section heading, by striking ''***Experimental***'' and inserting ''***Established***''; and

(2) in subsection (a), by striking ''Experimental'' and inserting ''Established''.

Subtitle F—Miscellaneous

SEC. 10861. PROGRAM, WORKFORCE, AND INDUSTRIAL BASE REVIEWS.

(a) REPORT ON INDUSTRIAL BASE FOR CIVIL SPACE MISSIONS AND OPERATIONS.—

(1) IN GENERAL.—Not later than 1 year after the date of the enactment of this Act, and from time to time thereafter, the Administrator shall submit to the appropriate committees of Congress a report on the United States industrial base for NASA civil space missions and operations.

(2) ELEMENTS.—The report required by paragraph (1) shall include the following:

(A) A comprehensive description of the current status of the United States industrial base for NASA civil space missions and operations.

(B) A description and assessment of the weaknesses in the supply chain, skills, manufacturing capacity, raw materials, key components, and other areas of the United States industrial base for NASA civil space missions and operations that could adversely impact such missions and operations if unavailable.

(C) A description and assessment of various mechanisms to address and mitigate the weaknesses described pursuant to subparagraph (B).

(D) A comprehensive list of the collaborative efforts, including future and proposed collaborative efforts, between NASA and the Manufacturing USA institutes of the Department of Commerce.

(E) An assessment of—

(i) the defense and aerospace manufacturing supply chains relevant to NASA in each region of the United States; and

(ii) the feasibility and benefits of establishing a supply chain center of excellence in a State in which NASA does not, as of the date of the enactment of this Act, have a research center or test facility.

(F) Such other matters relating to the United States industrial base for NASA civil space missions and operations as the Administrator considers appropriate.

(b) WORKFORCE AND MODELING AND TEST FACILITIES.—

(1) REVIEW.—

(A) IN GENERAL.—The Administrator shall enter into an arrangement with the National Academies of Sciences, Engineering, and Medicine to carry out a comprehensive review of the workforce, skills-base, and modeling and test facilities of the Administration.

(B) ELEMENTS.—The review conducted under subparagraph (A) shall include the following:

(i) A consideration of the use of emerging technologies in relevant engineering and science disciplines and the skills needed to apply such capabilities to Administration missions across all mission directorates.

(ii) Prioritized recommendations on actions needed to align the Administration's workforce with research objectives and strategic goals and on the improvements and additions to modeling capabilities and test facilities needed to meet the Administration's strategic goals and objectives.

(C) REPORT.—Not later than 18 months after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress report on the results of the review conducted under subparagraph (A).

(2) IMPLEMENTATION PLAN.—Not later than 120 days after the date on which the review under paragraph (1) is completed, the Administrator shall submit to the appropriate committees of Congress a plan for implementing the recommendations contained the review.

(3) REPORT ON NASA INFRASTRUCTURE, WORKFORCE SKILLS AND CAPABILITIES.—

(A) POLICY AND PROCEDURE.—

(i) IN GENERAL.—The Administrator shall develop an Administration policy and procedure

for assessment, not less frequently than every 5 years, of the strategic capabilities of the Administration, including infrastructure and facilities, and workforce skills and capabilities.

(ii) ELEMENTS.—The policy and procedure developed under clause (i) shall include acquiring data and support for Administration decisions and recommendations on strategic capabilities, including on infrastructure and facilities, and workforce skills and capabilities needed to support the goals and objectives of the Administration through 2040.

(B) REPORT.—Not later than 1 year after the date of the enactment of this Act, the Administrator shall submit the policy and procedure developed under subparagraph (A) to the appropriate committees of Congress.

(4) INDEPENDENT PROGRAM ANALYSIS AND EVALUATION OFFICE.—

(A) ESTABLISHMENT.—The Administrator shall establish within NASA an Independent Program Analysis and Evaluation Office (referred to in this paragraph as the ''Office'') for purposes of independently assessing program performance, making programmatic, technical risk mitigation and institutional recommendations, performing cost estimates and analyses, and conducting strategic planning activities, among other functions.

(B) INDEPENDENCE.—The Office shall remain independent of any program, and shall have no programmatic responsibilities, so as to maintain its independent assessment integrity.

(C) ACTIVITIES AUTHORIZED.—In conducting the functions of the Office, the Administrator may carry out—

(i) research on program assessment;

(ii) cost, schedule, and technical estimation; and

(iii) other relevant activities for the purposes of obtaining the highest level of expertise and the most effective decision-making tools with which to inform the Administrator.

(D) MOON TO MARS ACTIVITIES.—The Office shall maintain an ongoing, focused effort to assess the goals, objectives, requirements, architectural approach, cost and schedule, and progress of the Administration's Moon to Mars activities.

(5) INTERNATIONAL SPACE STATION.—Not later than 1 year after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress the results of an independent estimate by the Office of the cost of continuing International Space Station operations through September 30, 2030, including—

(A) crew and cargo transportation, research to be undertaken reflecting the priorities described in section 10816, and maintenance costs; and

(B) opportunities for operational efficiencies that could result in cost savings and increased research productivity and the amount of those potential savings and productivity increases.

SEC. 10862. MODIFICATION OF LEASE OF NON-EXCESS PROPERTY.

(a) IN GENERAL.—Section 20145 of title 51, United States Code, is amended in subsection (g), in the first sentence, by striking ''December 31, 2022'' and inserting ''December 31, 2032''.

(b) REPORTING REQUIREMENTS.—Subsection (f) of such section is amended by adding at the end the following:

''(3) ANNUAL AND CUMULATIVE NUMBER OF LEASES.—The annual and cumulative number of leases entered into under this section, by National Aeronautics and Space Administration center and facility.

''(4) ESTIMATED COST SAVINGS.—For each active lease agreement under this section, the estimated cost savings to the Administration resulting from reduced maintenance, operating, and associated costs in the previous fiscal year.

''(5) OTHER QUANTIFIABLE BENEFITS.—Other quantifiable benefits, including additional cost savings not included under paragraph (4), to the Administration resulting from the use of leases under this section.''.

(c) REPORT ON REQUIREMENTS.—Such section is further amended—

(1) by redesignating subsection (g) as subsection (h); and

(2) by adding after subsection (f) the following:

''(g) REPORT ON ENHANCED-USE LEASING REQUIREMENTS.—Not later than 270 days after the date of the enactment of the National Aeronautics and Space Administration Authorization Act of 2022, the Administrator shall prepare and submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report on existing requirements for applicants seeking a lease under this section, including—

''(1) any requirement related to the involvement of foreign entities, foreign entity ownership, and foreign entity investment; and

''(2) at the discretion of the Administrator, any other requirement related to the protection and security of Administration missions and facilities.''.

DIVISION C—SUPPLEMENTAL APPROPRIATIONS TO ADDRESS THREATS TO THE SUPREME COURT OF THE UNITED STATES

The following sums are appropriated, out of any money in the Treasury not otherwise appropriated, for the fiscal year ending September 30, 2022, and for other purposes, namely:

TITLE I

DEPARTMENT OF JUSTICE

UNITED STATES MARSHALS SERVICE

SALARIES AND EXPENSES

For an additional amount for ''Salaries and Expenses'', $10,300,000, to remain available until September 30, 2023, for expenses necessary to address threats to the Supreme Court of the United States.

TITLE II

THE JUDICIARY

SUPREME COURT OF THE UNITED STATES

SALARIES AND EXPENSES

For an additional amount for ''Salaries and Expenses'', $9,100,000, to remain available until September 30, 2023, for expenses necessary to address threats to the Supreme Court of the United States.

TITLE III

GENERAL PROVISIONS—THIS ACT

SEC. 301. Each amount appropriated or made available by this Act is in addition to amounts otherwise appropriated for the fiscal year involved.

SEC. 302. No part of any appropriation contained in this Act shall remain available for obligation beyond the current fiscal year unless expressly so provided herein.

SEC. 303. Unless otherwise provided for by this Act, the additional amounts appropriated by this Act to appropriations accounts shall be available under the authorities and conditions applicable to such appropriations accounts for fiscal year 2022.

SEC. 304. Each amount provided by this Act is designated by Congress as being for an emergency requirement pursuant to section 4001(a)(1) and section 4001(b) of S. Con. Res. 14 (117th Congress), the concurrent resolution on the budget for fiscal year 2022.

This division may be cited as the ''Supreme Court Security Funding Act of 2022''.

MOTION TO CONCUR

Ms. JOHNSON of Texas. Mr. Speaker, I have a motion at the desk.

The SPEAKER pro tempore. The Clerk will designate the motion.

The text of the motion is as follows:

Ms. JOHNSON of Texas moves that the House concur in the Senate amendment to the House amendment to the Senate amendment to H.R. 4346.

The SPEAKER pro tempore. Pursuant to House Resolution 1289, the motion shall be debatable for 1 hour equally divided and controlled by the chair and ranking minority member of the Committee on Science, Space, and Technology or their respective designees.

The gentlewoman from Texas (Ms. JOHNSON) and the gentleman from Oklahoma (Mr. LUCAS) each will control 30 minutes.

The Chair recognizes the gentlewoman from Texas.

GENERAL LEAVE

Ms. JOHNSON of Texas. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days in which to revise and extend their remarks and to include extraneous material on H.R. 4346, the bill now under consideration.

The SPEAKER pro tempore. Is there objection to the request of the gentlewoman from Texas?

There was no objection.

Ms. JOHNSON of Texas. Mr. Speaker, I yield myself such time as I may consume.

I stand before you today to strongly urge support for the CHIPS and Science Act.

The CHIPS Act and the bipartisan Science, Space, and Technology Committee provisions that form this package are vital to ensuring a bold and prosperous future for American science and innovation, maintaining our international competitiveness, and bolstering our economic and national security.

These provisions were built with rigorous input from the scientific community, industry, academia, and other stakeholders on what they need most to succeed in the 21st century.

This final product is the result of months of bipartisan negotiations. It is also the result of dedicated efforts and long hours put in by the committee staff, and I thank each of them for helping us to get where we are today.

□ 1300

With this legislation, we will bring about solutions for the climate crisis, enhance our semiconductor research and manufacturing, create jobs, increase regional innovation, and so much more. We will also take historic and much-needed action to build a strong and diverse STEM workforce and ensure that we are able to make use of all the brainpower and talent we have in our great Nation.

With bipartisan STEM pieces in this bill, we will create a bright future for all those who want to pursue STEM, no matter their race, gender, or ZIP Code. We are ushering in a strong future for our premier scientific agencies with transformational funding at NIST, NSF, and DOE. We also authorize important activities at NASA and address other discrete research topics across the government's scientific agencies.

The United States has long been a beacon of excellence in science and innovation, and it is far past time that we revitalize Federal support for the

initiatives that have enabled us to lead.

I am proud of this package, and I am especially proud of the bipartisan provisions in Division B that began in the Science, Space, and Technology Committee. I thank Ranking Member LUCAS for his partnership in this effort.

I know that this package does not have everything that everyone wanted. It doesn't have everything I wanted, but that is the nature of compromise and a result of urgency of this situation.

We must pass this legislation immediately to ensure that the United States remains a global leader in science, technology, and innovation and to bolster our economic and national security.

I urge all Members to put aside politics and support this thoughtful and balanced bipartisan package.

Mr. Speaker, I reserve the balance of my time.

Mr. LUCAS. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, just 24 hours ago, I expected my remarks on the CHIPS and Science Act to be very different.

I have worked on this bill for more than 3 years. When I first took leadership of the House Science, Space, and Technology Committee as ranking member in 2019, developing legislation to strengthen American science and technology was my highest priority.

After extensive work, in January of 2020, I introduced a comprehensive bill that created a long-term strategy for investment in basic research and infrastructure to protect the economic and national security of the United States.

Our committee's chairwoman, EDDIE BERNICE JOHNSON, shared my desire to refocus, revitalize, and reinvest in American science, and so we worked together for 2 years, gathering extensive stakeholder feedback and technical advice, while holding multiple hearings with expert witnesses to chart a path forward.

This has been an exemplary bipartisan process. Chairwoman JOHNSON and her staff have put in countless hours of work with my staff to find strong, consensus policies to support Federal R&D. I thank the chairwoman for her partnership and leadership and her staff for their diligence.

I also thank my committee staff members, who have put in long hours and hard work to craft what I believe could be a transformational science policy. I particularly thank Jennifer Wickre, who led this process for us from the very beginning.

The Science, Space, and Technology Committee's efforts over the past few years and the bipartisan legislation we produced is truly an incredible example of what we can achieve when we work together as responsible legislators in regular order. Unfortunately, not everyone shares our commitment to that process.

Mr. Speaker, I was frustrated last year when Democratic leadership put off conferencing our competitiveness legislation with our colleagues across the Hill in favor of focusing on the doomed Build Back Better Act.

I was frustrated when the proposed funding for semiconductor manufacturing jumped from $24 billion to $52 billion with no explanation.

I was frustrated when, after finally starting on conference negotiations, the other body tied our research policy to reconciliation.

I was frustrated when negotiations were shut down, and I was even more frustrated when the House was shut out of discussions once they picked back up.

So maybe I shouldn't be surprised, but I am frankly, in all fairness, disgusted by the developments over the last 24 hours.

House Republicans have been working in good faith this entire time to come to consensus legislation that could be passed by both Chambers. But time and time again, we have been thwarted by Democratic leadership that has moved the goalposts, shut down the process, chosen their divisive partisan policies over a smart bipartisan bill that would benefit our country for generations.

I understand why people on my side of the room are furious. I share those concerns, and I have been around here long enough to know that this is not the way to do things. For better or for worse—and it is very clearly for the worse, I would note—the CHIPS and Science Act has been irrevocably tied to a massive tax hike and spending spree in reconciliation.

The decisions on how to pursue scientific policy are out of the hands of this committee, and at this point practically out of the hands of this Chamber.

Mr. Speaker, I remain incredibly proud of the good work we have done to strategically strengthen American research and development. And yet I cannot ignore the fact that the immense tax hikes and irresponsible spending in the expanded reconciliation package change the calculus when it comes to supporting spending bills, particularly a bill that has come to be tied to reconciliation.

This is one of those occasions that, as a statesman and responsible Member of Congress, I have to put aside my own pride in the Science, Space, and Technology Committee's work and cast a vote that represents the best interests of Americans, and particularly the good people of the Third District of Oklahoma.

So, regrettably—and it is more regrettably than you can possibly imagine—I will not be casting my vote for the CHIPS and Science Act today.

I emphasize that this is in no way a reflection of my feeling about the transformational research policies in this bill. I am grateful to Chairwoman JOHNSON for working with me every step of the way to create a strategic, bipartisan, forward-thinking policy.

I just wish other legislators in both Chambers would follow our example instead of forcing indefensible votes like we have today.

Mr. Speaker, I reserve the balance of my time.

Ms. JOHNSON of Texas. Mr. Speaker, I yield 1 minute to the gentlewoman from California (Ms. PELOSI), our distinguished Speaker.

Ms. PELOSI. Mr. Speaker, I rise today in praise of this legislation as the House prepares to pass the CHIPS and Science Act, a bipartisan, bicameral bill that will well-equip our Nation to meet and beat the challenges of the 21st century.

With the monumental investments in this legislation, we take key steps to strengthen our families' and our Nation's economic future, remove roadblocks to developing scientific talent, and unleash research investment in every corner of America now and for generations to come.

Let us salute the outstanding leadership of the House negotiators who tirelessly fought for and secured many major victories for American families and the American economy in this package.

Thank you, in particular, to two terrific champions: Chairwoman EDDIE BERNICE JOHNSON of the Science, Space, and Technology Committee, Chairman FRANK PALLONE of the Energy and Commerce Committee, as well as other chairs who were involved in this legislation. I also acknowledge the leadership of the ranking member, Mr. LUCAS. It was a joy and inspiring to behold Mr. LUCAS' very informative and impressive presentation in favor of this legislation at the Rules Committee yesterday. In fact, half a dozen of the bills contained in this legislation are Republican bills.

I particularly join Mr. LUCAS in commending the staff on this and pay special tribute to Jenn Wickre, who has been remarkable in building bipartisanship in this legislation. My understanding is that she is recovering at home. I send her best wishes and prayers for a speedy recovery, with deep gratitude for her bipartisanship in putting this legislation together, which you so eloquently supported in the Rules Committee yesterday.

For generations, America has offered a beacon of excellence in science, innovation, and engineering. Our research has generated ground-changing discoveries. Our industry has powered unprecedented prosperity. Our technology has altered the course of history. And our workforce has been the envy of the world. I am so happy that in this legislation up to 100,000 Davis-Bacon jobs will be created.

In recent years, many other nations have followed our blueprint, investing in R&D and manufacturing and education. Their rise not only threatens America's status as the world leader in innovation but also the economic security of America's families. That is why, with the landmark legislation that we

will pass today, we will put America back on the path to preeminence so that we can compete and win in the 21st century.

When I mention those 100,000 Davis-Bacon jobs, that means a prevailing wage for our workers. I salute Chairman BOBBY SCOTT for his work in that regard.

It is called the CHIPS and Science Act, and I am so happy because a week ago I thought it was just going to be the CHIPS Act. But, fortunately, with the help of Mr. LUCAS and the negotiations of our distinguished chair, EDDIE BERNICE JOHNSON, we were able to get it to be the CHIPS and Science Act.

The chips are for now, that is important, ''Make It In America,'' keep us preeminent. The science is about our ongoing preeminence, and we will talk some more about that.

Again, because of the persistent, patriotic negotiations, the Congress can take great pride in this result. EDDIE BERNICE JOHNSON has been a respected leader as chair now of the Science, Space, and Technology Committee, respected in the science and research community for her ongoing commitment, her knowledge, her vision, her values about keeping America number one. I thank her.

The package includes more than $50 billion to bolster America's manufacturing of semiconductors, seizing the pivotal opportunity to restore our status as world leader in chips, make it in America, as Mr. HOYER would say.

Doing so is an economic imperative, creating, again, nearly 100,000 good-paying union jobs and lowering costs for American consumers while producing a crucial component of nearly every major technology we enjoy, including the cars we drive: 1,000 in a car, 2,000 in an electric car.

It is also a national security necessity, reducing our dangerous dependence on foreign manufacturing, especially amid growing aggression from the Chinese Communist Party.

Crucially, the bill contains strong guardrails, ensuring these transformative investments go straight into the American economy, not into stock buybacks or dividends or into facilities overseas.

Mr. Speaker, just as importantly, this legislation will reinvigorate American innovation nationwide with robust investments in research and technology.

This bill takes a giant leap toward building a more diverse and inclusive STEM workforce so that our Nation's brightest minds—wherever they are in whatever communities ethnically, geographically, generationally—are solving problems with science and driving American entrepreneurship.

This bill delivers job-creating hubs in every corner across the country so that more communities can participate in research and development, and this bill empowers our Nation to push the boundaries of science with investments that power America's preeminence in both basic research and next-generation technologies.

In doing so, we ensure America's dominance in the industries of the future for decades to come.

□ 1315

Mr. Speaker, let me be clear: This legislation is a resounding victory for the American people. Indeed, the final package contains a number of key provisions from our America COMPETES Act, on the Democratic side, which were not included in the Senate bill.

It was House Democrats who secured ironclad guardrails on the chips investments so that the Federal funding benefits American workers and interests, not our competitors overseas.

It was House Democrats who delivered historic funding to transform our Nation's research capacity, powering decades of discovery at the National Science Foundation, Department of Energy, and National Institute of Standards and Technology.

It was House Democrats who won smart, strategic investments in our clean energy and industries of the future, supporting renewable energy, combating the climate crisis, and developing cutting-edge technologies.

It was House Democrats who fought to broaden participation in the innovation economy, building a STEM workforce that better reflects the beautiful diversity of our Nation while bringing RECOMPETE grants—thank you, Mr. KILMER—to persistently distressed communities across the Nation. I thank our distinguished chairwoman, EDDIE BERNICE JOHNSON, for making so much of that possible.

Throughout the process of crafting the CHIPS and Science Act, the Congress has approached this work with a proud bipartisan spirit, as was witnessed by Mr. LUCAS' beautiful presentation to the Committee on Rules yesterday.

This legislation was assembled with input from negotiators from both sides of the aisle and both ends of the Capitol. It was the product of the committees. In the Senate, the bill earned 14 Republican Senators' votes for final passage.

Here in the House, the America COMPETES Act was rooted in bipartisan bills with broad support in the Congress and the country. As I mentioned, six intact Republican bills are part of this legislation.

Mr. Speaker, this vital legislation will pass today. It will pass. It would be my hope that it will pass with the broad bipartisan vote that America needs and America deserves.

As we send this landmark legislation to President Biden's desk, we participate in a great American tradition. In one of his final speeches, President John Kennedy addressed the National Academy of Sciences, where he delivered a powerful case for science as our North Star. His words have stood the test of time. He said: ''I believe that the power of science and the responsibility of science have offered mankind a new opportunity not only for intellectual growth, but for moral discipline; not only for the acquisition of knowledge, but for the strengthening of our nerve and our will.''

He knew then, and we know now, science serves as our nerve and our will to boldly seize the opportunities and tackle the challenges of our time.

With this legislation, President Biden and the Democratic Congress—and I would hope in a bipartisan way—proudly charge ahead in this all-American spirit with science, science, science, and science leading the way.

People say to me, ''Well, science or faith?'' I say I believe that science is an answer to our prayers.

Mr. Speaker, I urge a strong and bipartisan vote for the CHIPS and Science Act. I thank all who are involved in this, including Mr. LUCAS and our distinguished chair, other chairs on both sides of the Capitol, and Members on both sides of the aisle. I urge an ''aye'' vote.

Mr. LUCAS. Mr. Speaker, I yield 2 minutes to the gentleman from Texas (Mr. BRADY), the ranking member of the Committee on Ways and Means.

Mr. BRADY. Mr. Speaker, I thank Mr. LUCAS for his leadership on science, which is of so much importance to our country.

It is official; we are in a recession. Joe Biden's economy is a cruel economy. Americans are finding this out more and more each day.

This morning's economic report shows negative economic growth. Inflation is crushing our families, our small businesses, and our entire economy.

Now, Democrats have confirmed that CHIPS is a green light for higher taxes, corporate welfare, and, even worse, inflation in the future. They are insisting on hundreds of billions of tax increases on companies that build and make in America. They are insisting on unleashing 80,000 new IRS agents on American families, farmers, and small businesses.

Who in their right mind raises taxes as you are entering a recession? Now, even Republican sponsors of the CHIPS bill in the Senate are urging a ''no'' vote.

Good people can disagree on the contents of the semiconductor issues here. My view is that the original bill misses the mark on national security and provides tax subsidies that aren't warranted.

China is targeting 10 of our American technologies and industries, including robotics, biotech, artificial intelligence, and on and on. It is a mistake and missed opportunity to subsidize one and help one while ceding nine of our industries and technologies to China. I believe our approach should be to lift all of our industries up so they can compete and win against China.

I also believe we have the strongest semiconductor industry on this planet. No one sells more chips around the world than we do. We sell nearly half of

all the chips. The sales of the chips in America, the market in the world, we sell nearly half of it. Our production has been growing for 20 years. It is one of our biggest exports, and we have reliable supply chains because almost half of our chips for America are made here in America.

I think there is a smarter way to tackle this issue. I am, like others, stunned by the turnaround—I think the deceit—among Senate Democrats on taxes and tying it, unfortunately, to this bill.

Ms. JOHNSON of Texas. Mr. Speaker, I yield 2 minutes to the gentleman from New Jersey (Mr. PALLONE).

Mr. PALLONE. Mr. Speaker, I thank the gentlewoman from Texas, the chairwoman, for all of her work on this bill.

I rise in support of H.R. 4346, the CHIPS and Science Act, that will lower costs for consumers, create good-paying American jobs, and end our dangerous dependence on foreign manufacturers of critical goods.

I would like to focus on two key initiatives from the Committee on Energy and Commerce.

The American people may not know it, but semiconductors are integral to their everyday experiences. They are the microchips that are used in automobiles, consumer electronics, and washing machines. Over the past 30 years, America's share of semiconductor production has plummeted, jeopardizing our national security and economic welfare.

The COVID–19 pandemic laid bare the vulnerability of our semiconductor supply chains. As a result, automakers, medical supply companies, and manufacturers of heavy machinery faced severe disruptions, which drove up prices.

The CHIPS and Science Act appropriates over $52 billion to ensure more semiconductors are produced right here in the United States, ending our reliance on other countries and lowering costs for consumers.

But our competitiveness faces challenges elsewhere. Domestic vendors of communications network equipment have dwindled over the past several years, while the proliferation of networks using Huawei, a Chinese Communist company, have grown. Just this week, there were reports about how Huawei strategically deployed their equipment in U.S. networks to maximize their espionage capabilities.

This legislation also invests $1.5 billion in the Public Wireless Supply Chain Innovation Fund for the deployment and promotion of Open Radio Access networks, or Open RAN networks. This deals with 5G technology. This investment will help bring more diversity and innovation to wireless supply chains while also countering the spread of harmful network equipment, like Huawei, here and around the world.

Mr. Speaker, this bill is a win-win for our global competitiveness, economy, and consumers. I urge all of my colleagues to support it today.

Mr. LUCAS. Mr. Speaker, I yield 2 minutes to the gentlewoman from Washington (Mrs. RODGERS), the ranking member of the Committee on Energy and Commerce.

Mrs. RODGERS of Washington. Mr. Speaker, China is the biggest threat facing America today. The Chinese Communist Party uses its centrally controlled economy to pick winners and losers through massive government subsidies and handouts that benefit the ruling party's political allies. They do not adhere to free-market principles and the high labor and environmental standards that we have here in America. This is not a model America should embrace.

We succeed when we reward hard work, creative thinking, risk-taking, and innovation and ensure that a company's success isn't contingent on the approval, direction, or spending by the Federal Government.

I support making chips in the United States, but we cannot lead a new era of innovation through massive government subsidies. We cannot beat China by trying to outspend them.

The CHIPS bill unlocks the Democrats' radical tax and spending spree and will make President Biden's inflation crisis worse.

American competitiveness is suffering today as a result of harmful regulatory barriers and record government spending. This has resulted in unaffordable, high prices for every family, supply chain issues, and, as we learned today, the U.S. is entering a recession.

Meanwhile, Democrats' new reconciliation package spends hundreds of billions of dollars and raises taxes to achieve their grand socialist agenda for more control and more inflation.

To win the future, we need a reliable regulatory and permitting environment that unleashes innovation, secures our supply chains, and ensures American companies are creating jobs right here at home in the United States of America.

Instead of more radical spending, lifting these barriers must be central if we want to secure American leadership and beat China.

Mr. Speaker, I urge a ''no'' vote on H.R. 4346.

Ms. JOHNSON of Texas. Mr. Speaker, I yield 3 minutes to the gentlewoman from California (Ms. MATSUI).

Ms. MATSUI. Mr. Speaker, I rise today in support of the bipartisan CHIPS and Science Act.

Just over 2 years ago, I joined Congressman MCCAUL to introduce the CHIPS for America Act to reassert American leadership in the strategically important semiconductor industry.

I will admit, when Senator CORNYN, Senator WARNER, Congressman MCCAUL, and I started this effort, a lot of Members would ask me: What are these semiconductors, and why are they so important?

Well, I think it is clear this bill answers that question. Semiconductors are fundamental building blocks of the 21st century economy, and we simply cannot live without them.

But since we started this effort, the global chip shortage has only grown more severe and the need for legislation more pressing. Thankfully, by passing the CHIPS bill today, we are sending a clear message: The United States is still the gold standard for innovation.

I am glad we are acting today because other countries aren't waiting. They are making aggressive investments to try to surpass us.

The European Chips Act sets a goal of reaching 20 percent of worldwide semiconductor production by 2030. In Asia, Korea and India offer 50 percent design credits, and Taiwan offers a 15 percent R&D credit. So, passing CHIPS gives us the tools we need to stay ahead of the pack.

Bringing manufacturing and research back to the United States will have positive benefits in the short and long term. As new fabs funded by the CHIPS Act come online, they hold the potential to anchor regional technology clusters, creating well-paying jobs and spreading out America's base of skilled workers.

This, in turn, can provide a more secure and resilient supply chain for the mission-critical components our national security apparatus needs to succeed. This makes America safer and more secure.

I am also thrilled to have helped author legislation included in this package that will supercharge American 5G networks with more resilient supply chains through Open RAN investments. This new technology will pave the way for American companies to enter the telecom market and compete.

As an author of both the CHIPS and Open RAN funding bills, I know these critical economic drivers will drive innovation and create American job opportunities for years to come.

Mr. Speaker, I urge my colleagues to support the CHIPS and Science Act.

Mr. LUCAS. Mr. Speaker, I yield 2 minutes to the gentleman from Nebraska (Mr. SMITH), a member of the Committee on Ways and Means.

Mr. SMITH of Nebraska. Mr. Speaker, I rise today in opposition to this legislation.

When I recently visited with a manufacturer in my district whose products are highly dependent on access to chips, they told me that chips only comprise 5 percent of their supply chain challenges.

Chips are one of 10 sectors where China is seeking to break American dominance. This bill does not address our issues with China. It certainly doesn't address the other nine issues where China is also seeking to break American dominance.

For the same cost of these chips provisions, we could enact better R&D policy, ensure interest expensing, and bring IP back to the U.S. Broad-based policies would help all sectors of our economy.

I am as disappointed by what is not in this bill as I am disappointed with what is in it.

I am disappointed this bill doesn't include reauthorizations of noncontroversial trade policies which waive tariffs on manufacturing inputs for our domestic manufacturers and ensure fair treatment of U.S. products when we export them to developing countries.

Renewing these longstanding policies would help address our supply chain crisis, yet House Democrats refuse to bring reasonable reauthorizations to the floor.

This bill falls short. It is the wrong bill at the wrong time, and I will be voting ''no.'' I urge my colleagues to do the same.

□ 1330

Ms. JOHNSON of Texas. Mr. Speaker, I yield 1 minute to the gentleman from Massachusetts (Mr. NEAL).

Mr. NEAL. Mr. Speaker, I thank the chairwoman for her good work.

Mr. Speaker, I rise in support of the CHIPS and Science Act. We are here to put people over political discussions by lowering costs, creating jobs, and supercharging our domestic manufacturing.

Our domestic manufacturing from time to time has lagged; and in this legislation, we will reinvigorate our chip production nationwide.

Through sensible tax credits, we will incentivize further research and development and bring 100,000 good-paying jobs to the American family.

I don't understand how the other side can be opposed to this. This is an argument about national security. That is what this is about when everything is pushed back. We have this opportunity here to put aside the theatrical discussion and proceed with sensible, substantive legislation.

Let's get on voting for this CHIPS and Science Act.

Mr. LUCAS. Mr. Speaker, I yield 2 minutes to the gentleman from New York (Mr. KATKO).

Mr. KATKO. Mr. Speaker, I thank Ranking Member LUCAS for yielding.

Mr. Speaker, I rise today in strong support of the CHIPS Plus Act. This legislation has the potential to bring transformational investments to my district in central New York and will take long overdue steps to shore up our domestic supply chain for semiconductors.

Significantly, this measure has the support of pillars from the previous administration on national security and economic matters: Mike Pompeo, former Secretary of State, supports it. Wilbur Ross, former Secretary of Commerce, supports it. Mark Esper, former Secretary of Defense, supports it. Robert Lighthizer, former U.S. Trade Representative, supports it. And Robert O'Brien, former National Security Adviser, supports it.

That is impactful to me, and it should be impactful to all Americans.

All of these former administration officials recognize the inherent danger of ceding ground on technological development to the malign Chinese Communist Party; and like me, I am sure none of these officials will support the partisan reconciliation package the Democrats are cooking up to raise taxes.

We can't control that. We are not in the majority. This is a separate bill, and we need to focus on what we are voting on today, not tomorrow, not next week, not next month. It is vital that we pass this, and I urge my colleagues to join me in supporting CHIPS Plus.

I will note this in closing: Whatever we invest in today we will get back many times more by the private investment and all the economic growth it is going to spur.

Ms. JOHNSON of Texas. Mr. Speaker, I yield 1½ minutes to the gentlewoman from New York (Mrs. CAROLYN B. MALONEY).

Mrs. CAROLYN B. MALONEY of New York. Mr. Speaker, I rise in support of the CHIPS and Science Act, a historic bill that should have strong bipartisan support because it will lower costs for American families and restore American leadership in industries that are critical to our economic and national security.

This bill is a strong response to countries like China that aim to threaten our industrial base, supply chains, intellectual property, and technology security.

This bill will help ensure that America cannot be threatened and will no longer accept the outsourcing of critical industries.

We took an important step to address this in the President's infrastructure act, which included an important measure I championed to ensure personal protective equipment is made in America. Never again will New York health workers be forced to wear trash bags to protect themselves from a deadly pandemic because China was blocking shipments of personal protective equipment.

The CHIPS and Science Act ensures we are making it in America, creating 100,000 good-paying jobs to manufacture critical semiconductor components right here in the U.S. employing Americans.

It also turbocharges our research and development investment and workforce to ensure America is leading in next-generation innovations.

I am so proud of the work of the Oversight and Reform Committee to support this legislation and proud to cast my vote for it today.

Mr. LUCAS. Mr. Speaker, I yield 2 minutes to the gentleman from Oklahoma (Mr. HERN).

Mr. HERN. Mr. Speaker, I thank my good friend, a member of my delegation and my colleague, Mr. LUCAS, for his leadership on this bill. No one has worked harder on this issue, and the fact that he is willing to stand up against it today is a testament to the importance of stopping the build back broke plan.

America is in crisis. Even Obama's economic advisers agree that wasteful government spending is what got us into this mess. And yet, the Democrats continue to push for more.

We are staring down the barrel of another useless, wasteful build back broke plan that will only make our problems worse.

We should not pass one more bill on this floor until we see a bill than reins in government spending, lowers taxes, unleashes American energy, and gets Americans back to work.

When the government spends more, the American people have less. The time to fight is now. I hope all of my colleagues will join me in opposition to this legislation.

Ms. JOHNSON of Texas. Mr. Speaker, I yield 1 minute to the gentleman from Maryland (Mr. HOYER), our distinguished majority leader.

Mr. HOYER. Mr. Speaker, I regret that we find ourselves in this position of being divided on this bill. This, like every piece of legislation we pass, is not perfect. And very frankly, if we made a judgment on every piece of legislation that we considered that I don't like some other bill, we would be in real trouble. And maybe we are in real trouble.

There was a manifesto put out by Xi and Putin when they met some months ago. Essentially what that manifesto said is the dictatorships, the authoritarian regimes are going to win because democracies cannot make decisions, they are too divided, they are too slow. This is what they were thinking about.

This is a good piece of legislation. It is not the piece of legislation that I would have written, but it is a good piece of legislation that does good things for America, and more importantly, good things for our competitive status in the world.

Mr. Speaker, the pandemic has taught us many lessons. One of those lessons, reinforced by Vladimir Putin's criminal war against Ukraine, is that we cannot and must not rely on the unreliable. Let me repeat that. America must not rely on the unreliable. We saw from the pandemic how reliable we were for so many things we needed to meet the crisis of the pandemic.

The minority leader, who told us all that he was going to urge all of his colleagues to vote ''no'' on this bill, talked about inflation. One of the reasons we have inflation is because we have shortages. That is what drives prices up when demand is high and supply is low. You don't have to be an economist to get that lesson.

This bill seeks to address that issue because as we all know, chips are ubiquitous in almost everything that we have that has anything to do with electronics.

Every day, Americans see examples of why we must take steps to make our

supply chains more secure and more reliable. This deals with that. Yet my Republican friends urge a ''no'' vote, not because they think this bill is bad—they may—but because they don't like another bill. That is what Xi and Putin are counting on. That is what the autocrats and authoritarians around the world are counting on, that democracies come to a halt. Because as democracies they debate and they differ, and they can't make decisions even when a significant number of the minority party is for this bill. One-third of the United States Senate Republicans voted for this bill because they thought it was good for competition between us and China and between us and everybody else.

That is why it is so sad for me to come here seeing this division on a partisan basis because of another bill. And so America, if we don't prevail on this bill, will see our competitive edge squandered because as the Secretary of Commerce says, there are a lot of countries that are going to put money on the table and say come to me. I am ready. You build your factory here. You build your chips here. And if America needs chips, if our manufacturers need chips, well, they can come to us. Not good. Good for Putin. Good for Xi. Not for us.

We must not rely on hostile foreign competitors to supply critical components that sustain America's manufacturing base. Chips are at the heart of that. That is what this bill is about. That is why we bellied up to the bar. That is why we are putting a lot of money on the table.

This is not the reconciliation bill. This is about America. It is not about Republicans or Democrats. This is about America, American workers, American competitiveness, American manufacturers, American technology.

I thank the chair for the extraordinary investment she has led in making our research and development compete with China in a way that we will win. And if we win, our workers and our people will win.

Microchips. In 2022, microchips are in nearly every product, as I said, from phones to cars to children's toys. At the same time, advanced semiconductors are becoming more and more integral to high-tech, advanced manufacturing processes, making them critical to our economy.

Yes, we can wait, maybe until tomorrow, maybe until January when the minority party takes over—so they think. Maybe we will wait until then. Or maybe that won't happen, and we will wait 24 months and Xi and Putin will be saying, hey, yeah, you go to it. They are lobbying against this bill. They are lobbying, paying to defeat this bill. Do not be their handmaiden.

America needs a unified Congress if it is going to compete. Indivisible, one Nation.

One of the best ways for us to ease inflation and bring costs down for American workers and consumers is to remove these supply pressures by making more of these critical components here in our country instead of relying on importing them from abroad. That is what we heard over and over and over again from the United States Senate.

We are making materials here at home, creating jobs, and streamlining our supply chains with this bill. This bipartisan legislation—17 Republicans, one-third of the United States Senate Republicans voted for this bill.

This bipartisan legislation, the CHIPS and Science Act, which will always be for me the Make It in America Act, represents the most significant investment in easing inflation and promoting American manufacturing and innovation that we have seen in a generation. This is a Make It in America bill. Every time I say that to an audience, no matter how red or conservative or how blue or how liberal, they all shake their head, yes, we need to make it in America. That is what this bill is about.

While it is not as broad as I and others in the House had hoped for, the bill, nevertheless, achieves so many of our goals. Don't look a gift horse in the mouth and say no. It makes good on promises that our majority made to the American people to govern responsibly and build a post-pandemic economy that works better for more Americans. But this was a bill that was fashioned in a bipartisan way.

□ 1345

Nobody said at the time, well, it will be for this bill if we like every one of the bills you are supporting—what a negative way to perceive legislation to approach how you vote.

This legislation contains substantial new investment in science, research, and innovation—again, thank you, EDDIE BERNICE JOHNSON—which will help us maintain our competitive edge, commercialize new discoveries, and train our workforce to succeed in the global economy.

The investments we are making in this legislation are not only a major victory for American businesses and workers; they achieve a big part of the Make It In America plan, which I have talked about since 2010. That is, making supply chains more resilient.

When we make microchips and semiconductors in America, more of our workers and entrepreneurs will surely ''make it'' in America.

Across America, we are now observing Made in America Week. Isn't that ironic? This is Made in America Week, yet we have a bill on the floor which invests in making it in America. The minority leader said on this floor: I am urging all of my Republican colleagues to vote ''no.'' Surely not because they are against making it in America but because they don't like some other bill, and they are going to stamp their feet and have a tantrum about the other bill.

This legislation now truly looks forward in ensuring that our workers and businesses will continue having opportunities to make it in America long into the future. This is not about today. It is not about tomorrow. It is about the next year, the next 10 years, the next generation. That is what this bill is about.

I plead with my colleagues, don't reject this bill based on a political perception of it.

Mr. Speaker, I again thank Chairwoman EDDIE BERNICE JOHNSON for her leadership on the House's similar legislation, as well as all the Members who had policies that were incorporated into this bill.

Today, we have a chance to deliver our promise to enact a major priority from President Biden's economic agenda, and I would suggest a major economic agenda of Republicans in the United States Senate, as articulated by the chairman of the Senate Committee on Commerce, Science, and Transportation. I hope some across the aisle will still vote for this bill as their Republican colleagues in the Senate did and as they had signaled they would do for a long time.

The politics changed, but the challenge we have has not, and the reality has not. Let us not lose this opportunity. It is disappointing that some in this House have decided to whip against this bill because of its leadership's opposition to the agreement announced yesterday in the Senate to move forward with the Inflation Reduction Act. Whether you like that bill or not, do not pay the price of this bill. Do not pay the price of setting our competition with others aside.

One would hope that all of us would be both for investment in American competitiveness and for reducing inflation and the deficit. Sadly, that seems not to be the case. Nevertheless, I hope we will have a bipartisan vote today on this bill.

Let's come together to make our supply chain stronger, protect our national security, invest in our innovation-driven economy, and advantage American workers so they can make it in America.

Mr. Speaker, I say to my colleagues: We talk about the loyal opposition. The loyal opposition need not be loyal to the other party. It does need to be loyal to the country.

Mr. LUCAS. Mr. Speaker, I yield 2 minutes to the gentleman from Pennsylvania (Mr. KELLY).

Mr. KELLY of Pennsylvania. Mr. Speaker, I thank my friend from Oklahoma for yielding.

Mr. Speaker, the distinguished leader was exactly right in his comments, but I would just like people to think about something.

Every single problem we face today globally emanated right here, from this same floor. Tax policy, regulation policy, drove most of these businesses offshore. They didn't leave because they didn't like America. They left because it looked like America didn't like them.

We have seen the erosion of so much of what it is that we are, all because of policy that emanated right from this same floor. Now, we are trying to do something to correct bad policy in the past.

I am in the automobile business. We can't finish building cars because we don't have the product necessary to finish them. Most of the people we talk to said we didn't leave America by choice. We were forced offshore by policy. The Speaker and I know this because we are big fans of the steel business.

The only thing I would ask my friends on this side and my colleagues on the other side, there are consequences for past performance. This bill in no way is perfect, and Mr. HOYER is exactly correct about that. But the question is: What is it that we are trying to fix, and whose problem is it? The answer is: It is our problem because it is happening in real time on our watch. We have to do something. Doing nothing is not the answer to how we fix this bad situation.

But we can't do everything from the House. We have to rely on the Senate to participate. Then, we look at what we had initially started and say: What did they do to the piece that we were trying to get done?

Listen, I know the debate can get heated. We can talk about how patriotic we are, and we can talk about what the future is not only for ourselves but for our children and our grandchildren and our great-grandchildren.

The SPEAKER pro tempore. The time of the gentleman has expired.

Mr. LUCAS. Mr. Speaker, I yield the gentleman an additional 1 minute.

Mr. KELLY of Pennsylvania. Mr. Speaker, I suggest that all of us need to take a good long look in the mirror and see who it is that can change the future.

There is no sense in talking about what happened in the past. The past is the past, and we cannot reclaim it. We can just deal with it.

We have a huge problem on our hands today because we have allowed the technology to leave; we have allowed the production to leave; we have allowed the product to leave; and then we come back and say now we have to do something to get it back.

This may be the bill that does that. I don't know. I know from certain States, this is a must-have for some of our colleagues. It is a must-have for us to remain competitive. We are in a global economy.

I can tell you this: I wish this was the same bill that we had proposed back when General Motors was facing bankruptcy because we know this body—not us, we weren't here—lent them the money to stay alive, and they paid it all back in full with interest.

This is not that same process, and that is why we are so caught, trying to figure out what we should do to face this part of the business. What can we do here?

The SPEAKER pro tempore. The time of the gentleman has again expired.

Mr. LUCAS. Mr. Speaker, I yield an additional 30 seconds to the gentleman.

Mr. KELLY of Pennsylvania. Mr. Speaker, it comes down to this: We are not Republicans, Democrats, Libertarians, or Independents in this House. We are truly the American people. It is up to us to fix problems that are bad, even if we started them ourselves.

I just hope that all of our colleagues sit back and take a long look at what is being proposed today and try to figure out, not for themselves but for the people they represent—and most of us represent three-quarters of a million people—what is in the best interest of the people you represent, what is in the best interest of the Nation that you live in, and what is in the best interest of the future of America.

Ms. JOHNSON of Texas. Mr. Speaker, I yield 2 minutes to the gentlewoman from Oregon (Ms. BONAMICI).

Ms. BONAMICI. Mr. Speaker, I rise in strong support of the CHIPS and Science Act, and I thank Chairwoman JOHNSON for her leadership in bringing this bill to the floor today.

The pandemic has underscored how important our domestic semiconductor supply chain is to transportation, the energy sector, national security, and scientific advancement. With this bill, we will make a vital investment in domestic manufacturing and in workers in Oregon and across the country.

I am also grateful that this legislation includes two of my bipartisan bills. I am the co-chair of the House Oceans Caucus, and my Coastal and Ocean Acidification Research and Innovation Act will help protect the health of our ocean while supporting coastal resiliency. Acidification of the ocean and estuaries destabilizes coastal communities, causing long-term economic harm. This bill will strengthen investments in research and monitoring, provide resources to mitigate, and increase our understanding of the socioeconomic consequences of inaction.

My Building STEAM Education Act will expand resources and grant opportunities to integrate art and design into STEM education programs, which will better engage students, prepare an innovative workforce full of creative and critical thinkers, and enhance the diversity of the STEM workforce.

Overall, Mr. Speaker, the CHIPS and Science Act will grow U.S. leadership, strengthen our scientific enterprise, bolster research and development, grow our domestic semiconductor manufacturing base, and on-shore critical supply chains. Importantly, it will also support workers and create many quality jobs in Oregon and across the country.

I thank the tireless committee staff for all of their work to bring this bill to the floor today.

Mr. Speaker, I strongly urge all of my colleagues to put American leadership above politics and support this important bipartisan bill.

The SPEAKER pro tempore. The gentleman from New York (Mr. TONKO) will control the remaining time.

Mr. TONKO. Mr. Speaker, I reserve the balance of my time.

Mr. LUCAS. Mr. Speaker, I have no additional speakers, and I reserve the balance of my time.

Mr. TONKO. Mr. Speaker, I yield myself 2 minutes.

Mr. Speaker, I am excited to advance this legislation that will ensure our Nation's economic growth and security for generations to come. It is a major response to and a solution for inflation.

For over 30 years, our Nation's share of global semiconductor manufacturing has steadily declined—declined to dangerously low levels. This technology powers our cars, phones, and critical infrastructure like traffic lights and military communications. The global chip shortage is not only a national security concern, but it continues to drive inflation when industries cannot secure the chips necessary to get their products to market.

This CHIPS and Science Act tackles two pressing issues of the day: strengthening U.S. competitiveness and lowering costs for consumers.

I am proud of the role the House has played in the development of this legislation, the tireless work in the House that has secured meaningful guardrails that would prevent companies from investing in our overseas competitors and funds from being used for stock buybacks. These are very critical improvements.

I also thank Chair JOHNSON and the House Committee on Science, Space, and Technology for their work on division B of this package to support much-needed boosts to United States research and development. This includes the bipartisan Micro Act, which complements CHIPS funding by accelerating microelectronics research at the Department of Energy.

I recognize Ben Kallen of the Committee on Science, Space, and Technology staff and Darian Harbeck of my staff for their hard work to develop and enact this critical legislation.

Now is the time to recommit to boldly and strategically investing in our Nation's future to promote America's economic strength, the well-being of our communities, our national security, and our leadership around the world. This transformative legislation will indeed ensure that America can out-compete any Nation for decades to come.

Let's fight inflation, let's grow jobs, let's make certain that we respond fully to the needs of the day.

Mr. Speaker, I reserve the balance of my time.

Mr. LUCAS. Mr. Speaker, I continue to reserve the balance of my time.

Mr. TONKO. Mr. Speaker, I yield 1 minute to the gentlewoman from Michigan (Mrs. DINGELL).

Mrs. DINGELL. Mr. Speaker, I rise today in strong support of the CHIPS and Science Act.

Semiconductor chips help power nearly every sector of our economy, and I have witnessed firsthand how the global chip shortage has led to idle plants and layoffs and continues to hurt the auto industry, union workers, and our Nation's competitiveness by the hour.

The reality is that we need to make more chips, and we need to make them in America. We are at an inflection point where we can and must cement U.S. leadership and keep America at the forefront of innovation and technology.

The CHIPS and Science Act will support long-term investment in domestic semiconductor manufacturing, including $2 billion for mature-node semiconductor chips that are critical for the automotive industry, advance research and development, and create good-paying American jobs. These provisions will assist in revitalizing our States' economies that have been constrained by supply chain vulnerabilities, reducing production and driving up prices.

This isn't just a manufacturing jobs issue, but it is also of vital importance to our national security.

Mr. Speaker, I urge my colleagues to support this legislation.

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Mr. LUCAS. Mr. Speaker, I am prepared to close whenever it is appropriate, so I continue to reserve the balance of my time.

Mr. TONKO. Mr. Speaker, I yield 1 minute to the gentleman from Rhode Island (Mr. CICILLINE).

Mr. CICILLINE. Mr. Speaker, the outsourcing of American manufacturing jobs has not only resulted in job losses and lower wages at home, it is threatening America's standing as an economic superpower on the global stage.

The CHIPS and Science Act is the bold action we need to maintain our global standing and provide a strong economic future for American families, small businesses, and workers.

Critically, this legislation includes an estimated $1.8 billion for the National Science Foundation's Established Program to Stimulate Competitive Research, also known as EPSCoR, a critical program that funds cutting-edge scientific research in smaller States like Rhode Island with historically underfunded academic communities.

Drawing on the talent, knowledge, and perspectives of academic institutions from every State, no matter how small, helps maintain our competitive edge in scientific advancement.

With this and the other investments made in this legislation, we will boost our domestic manufacturing capabilities and supply chains, end our dangerous dependence on foreign manufacturers, advance U.S. scientific research, lower costs for American consumers, and create 100,000 new, good-paying jobs.

Mr. Speaker, I urge my colleagues to support this critical legislation.

Mr. LUCAS. Mr. Speaker, I continue to reserve the balance of my time.

Mr. TONKO. Mr. Speaker, I yield 1 minute to the gentleman from Indiana (Mr. MRVAN).

Mr. MRVAN. Mr. Speaker, I thank the chair for the time.

Mr. Speaker, I rise today to express my support and appreciation that the House is considering the CHIPS and Science Act.

Indiana's First Congressional District is home to an incredible manufacturing, steel, and industrial workforce. This legislation takes historic action to shorten supply chains, increase the production of American-made semiconductors, and protect our national security.

I thank my Senate colleague from Indiana, Senator TODD YOUNG, for his steadfast leadership on this initiative.

Today is a good day for northwest Indiana and the State of Indiana. This bipartisan legislation is an investment in research, technology, and STEM. It allows us to be in enhanced global competitiveness. It makes us less reliant on other countries for chips and semiconductors. It invests in the American worker and ingenuity. It allows for our autoworkers to complete production without stoppages. It allows for continuity for our steel industry and steelworkers and productivity, and it strengthens our Nation's security.

It creates an opportunity for Indiana in a bipartisan congressional manner and the delegation to come together to compete for a tech hub, and it creates a future for the next generation of workers.

Mr. Speaker, I urge my colleagues to support this agreement, and I thank the chair, again, for my time.

Mr. LUCAS. Mr. Speaker, I continue to reserve the balance of my time.

Ms. JOHNSON of Texas. Mr. Speaker, I yield 1 minute to the gentlewoman from New Mexico (Ms. STANSBURY).

Ms. STANSBURY. Mr. Speaker, I rise today to celebrate the brilliant and boundless minds of our scientists, our innovators, and our young people in New Mexico and across the United States.

There is a lot to say about the CHIPS bill that is so crucial for our economy, our national security, and for innovation in our country. But today I want to celebrate our innovators and talk about the crucial importance of passing this bill.

This bill has particular meaning for me as it includes my very first piece of legislation that I filed upon taking office last year which is the bipartisan Partnerships for Energy Security and Innovation Act.

I thank the chairwoman, her staff, and the leadership for making it possible and our State's very own Senator BEN RAY LUJÁN who has led this legislation for years.

This bill leans into our State's economic strengths and will take our STEM economy to new heights. It will help to create a nonprofit foundation associated with the Department of Energy to harness the knowledge and innovation of our national labs, our universities, our Tribal colleges, and our HBCUs and Hispanic-serving institutions to solve our challenges at the highest levels.

Mr. Speaker, I thank, again, the leadership and say: Let's get this bill across the finish line, and let's build it in America.

Mr. LUCAS. I continue to reserve the balance of my time, Mr. Speaker.

Ms. JOHNSON of Texas. Mr. Speaker, I yield 1 minute to the gentleman from Pennsylvania (Mr. LAMB).

Mr. LAMB. Mr. Speaker, I rise in support of this bill not only for the important semiconductor provisions but for some of the provisions that are less noticed, including the text of the SUPER Act authored by Representative GONZALEZ of Ohio and me which focuses on how to get the carbon emissions out of steelmaking.

It is often the people from steelmaking parts of the country who stand up in support of provisions like this, but this is important for every American. Every American uses 600 pounds of steel every single year. If you think about the roads you drive on, the bridges and buildings you enter, your own car, and your own house, Mr. Speaker, it starts to add up.

There is nowhere in the world that they make this steel without emitting more CO_2 into the atmosphere. Somewhere someone in the world is going to figure out how to do that. If we do it here in the United States—we are already emitting less than everybody else—but if we can get it to zero, then we will have a product that everyone in the world is looking for and is crucial to our future. This bill will help us do that.

Mr. LUCAS. Mr. Speaker, I reserve the balance of my time.

Ms. JOHNSON of Texas. Mr. Speaker, I yield 2 minutes to the gentleman from Ohio (Mr. RYAN).

Mr. RYAN. September 19, 1977, Black Monday is when all the steel mills closed in Youngstown, Ohio, and we have been waiting since then for a transformational investment into the State of Ohio. This bill is going to allow Intel to come to Ohio and convert a $20 billion deal into a $100 billion deal: 7,000 construction jobs and 3,000 full-time jobs with an average wage of $135,000 per year. It is going to transform the industrial Midwest. It is going to allow us to out-compete China.

This is also a national security issue.

Young people who have been leaving Ohio for generations are going to be able to come back. This is an unbelievable bill.

This is the first step towards an industrial policy in the United States of America, and it is time for us to quit the politics, stop trying to score political points, stop putting party over country, and lay down our arms.

My God, if we can't agree on this, what in the hell are we going to agree on?

Rebuilding the manufacturing base?
Good-paying jobs?
Union construction?
Out-competing China?
National security?

Come on. Let's do this. Let's do it together.

But we have a small group of people who have hijacked the Republican Party, and the leadership in this House on the Republican side is more concerned with defeating Democrats than doing something that is best for the United States of America. We just saw it in the Senate with the burn pits legislation, and we are seeing it here with the CHIPS legislation: party over country.

So July 28, 2022, is going to be Black Thursday—the day the Republican Party has been hijacked and aligned themselves with Communist China.

Mr. LUCAS. Mr. Speaker, I yield 1 minute to the gentleman from Louisiana (Mr. HIGGINS).

Mr. HIGGINS of Louisiana. Mr. Speaker, I will tell my colleague what we can agree on in the hallowed Halls of this Chamber. We can and should agree that men of principle do not intend to build the future of our Republic upon backroom deals in the dark of night in the upper Chamber of our bicameral Congress, which is exactly what happened with this bill, which is why it is now strongly opposed by my colleagues in the Republican Party.

Everything we do here to advance the future of America should be based upon the core principles that gave birth to America.

Perhaps my colleague could agree with me upon that.

Ms. JOHNSON of Texas. Mr. Speaker, I yield 1½ minutes to the gentlewoman from Texas (Ms. JACKSON LEE).

Ms. JACKSON LEE. Sadly, though, this is called the CHIPS and Science Act, it left out the calculation of math for my colleagues on the other side of the aisle.

America is applauding. For once they will not be stopped and stymied by a supply chain that says: no technology, no cars, stay forever without wheels when you have a driving business.

This bill is expected to create 100,000 jobs. I am excited, in particular, about the addition of NASA's reauthorization and to specifically note that NASA's Johnson Space Center will be doing the Orion program funded, Gateway program funded, Extravehicular Activity in Human Surface Mobility funded. Orion, Gateway and EHP funded. These are individual programs that we funded for one of the most prominent centers there.

In addition, we are going to move to manufacturing chips in this Nation, including Houston.

The Democratic Republic of the Congo has precious metals. Where do they want to send them?

To the United States of America.

They want us to produce. They want us to be able to transport.

Out of this bill with the amazing amount of research coming forward in science it is going to be a testimony.

I want to pay tribute to Congresswoman EDDIE BERNICE JOHNSON, the chairwoman who guided this with the kind of calm and expertise that has brought us to this point.

Texas is proud, the Nation is proud, and 100,000 jobs and over $3 billion that will be provided in energy alone, $10.9 billion for the Office of Science, $7.5 billion for FY22, a 6 percent annual increase.

This is a jobs bill.

Mr. Speaker, I rise in strong support of H.R. 4346, the CHIPS and Science Act, which comes as a result of bipartisan bicameral work following the passage of the Competes Act and the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021.

CHIPS' authorization was part of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021. Which authorized the Department of Commerce (DOC), Department of Defense (DoD), and Department of State (DOS) to engage in activities to develop onshore domestic manufacturing of semiconductors critical to U.S. competitiveness and national security.

This bill is expected to create nearly 100,000 new American jobs.

And provisions in the Bill are reflecting my legislation.

I am proud to say that many of those jobs would be housed in Texas.

Currently, more than 30,000 Texans work in the manufacturing of semiconductor chips. In fact, for the last 11 years, my state has been the country's number one top exporter of this product.

There are opportunities in addressing the necessity of finding and refining of rare earth-critical mineral elements that are needed to manufacture technology in every aspect of the economy.

I will be hosting a major energy discussion and a series of meetings in September and October to focus on closing the gap between U.S. demand for these materials and the supply available to us in the global marketplace.

I believe that our nation's independence and competitiveness is on the line if we do not solve this problem.

On September 12, 1962, President Kennedy gave a speech at Rice University that outlined the task he was given to the nation's best and brightest scientists by saying:

"We choose to go to the moon in this decade and do the other things not because they are easy, but because they are hard. Because that goal will serve to organize and measure the best of our energies and skills because that challenge is one that we're willing to accept. One we are unwilling to postpone."

Our nation has never measured itself by the progress of other nations, but by the boundlessness of our imagination that we work to make real.

Before the race to the moon, the United States had conquered other science, engineering, and technological challenges like the building of the Panama Canal and human flight.

We know the fruit of this labor is greater knowledge, innovations, the unlocking of new knowledge, and the dispelling or confirmation of scientific proofs.

As a member of the Bipartisan Space and Aeronautics Caucus, I am in support of the NASA Authorization that is included in this bill.

I am a sponsor H.R. 5260, the Advancing Human Spaceflight Act of 2021, a bill establishing programs and policies pertaining to human presence in space.

This bill would establish a program to develop next-generation space suits and associated technologies, establish an outpost in orbit around the Moon as described in this bill, and submit a plan for achieving a power supply on the Moon.

The bill declares that it is U.S. policy to continuously maintain the capability for a continuous human presence in low-Earth orbit through and beyond the useful life of the International Space Station (ISS) and that such capability shall maintain U.S. global leadership and relations with partners and allies, contribute to the general welfare of the United States, and leverage commercial capabilities to promote affordability so as not to preclude a robust portfolio of other human space exploration activities.

I am also a cosponsor of H.R. 869, the Research Investment to Spark the Economy Act of 2021 or the RISE Act of 2021, a bill that authorizes the Departments of Agriculture, Commerce, Defense, Education, Energy, the Interior, Health and Human Services, and Transportation, National Aeronautics and Space Administration (NASA), National Science Foundation, and Environmental Protection Agency to provide support for research regarding COVID–19 (i.e., coronavirus disease 2019) or research disrupted by the COVID–19 pandemic.

The bill provides supplemental funding to extend the duration of a grant to a research institution, national laboratory, or individual that was awarded prior to the enactment of this bill, or to expand the purposes of such a grant as specified; issue awards to research the effects of the current pandemic and potential future pandemics; and provide flexibility on awards to account for facility closures or other limitations during the COVID–19 public health emergency.

H.R. 4346, the CHIPS and Science Act bill before us today, includes National Aeronautics and Space Administration authorization for the:

Artemis Moon Program;

Moon-to-Mars Exploration Campaign, including the Artemis program to return America to the Moon;

Maintenance of the International Space Station.

Extension of authorization for the International Space Station through 2030 and establishes priorities for research, as required to bring Americans to Mars;

Extend NASA Enhanced Use Lease Authority. Enables NASA to lease underutilized;

Prioritization through 2032, and to use lease revenues to address facility maintenance while reducing taxpayer costs;

goal of including Earth science observations and the search for life beyond Earth;

Advancement of U.S. Aeronautics Leadership

Enhancement of NASA Technology, Infrastructure, and Workforce; and

Focused attention that ensures Planetary Defense against meteors and large asteroids.

I have long held an intense interest in the Nation's premier space exploration agency, first as a member of the House Science Committee and now as a member of the House Committee on Homeland Security.

From space exploration to climate change the work of Congress is needed now more than ever before.

I have for several Congresses offered an amendment to the NDAA to provide Congress with a report on the issue of space debris, which jeopardizes human space exploration.

These objects are a product of earlier space exploration when there were only a few nations capable of low earth orbit space flight.

Today, public-private partnerships and collaboration is bringing the commercial sector into space exploration.

The space debris amendment brings valuable insight into the challenges, dangers, and opportunities present by addressing space debris moving over 17,000 miles an hour and the real changes of debris disabling or damaging manmade space exploration or development efforts.

President Kennedy knew what was on the line if our nation did not dominate the space race.

Because he understood what was at stake he set the nation's sights on people walking on the surface of the moon, and to safely return home required technology, materials, metals, food preservation, clothing, and instruments that had not been invented at the time of his speech this was a monumental challenge that captivated and motivated Americans—All Americans to find within themselves the talent, courage, and fortitude needed to make his words our nation's greatest scientific accomplishment.

He said his challenge was an act of faith and vision because no one know what would come from the effort of accomplishing the challenge of conquering space.

The speech at Rice University is located in the city of Houston because of the concentration of engineering, researchers, and academic institutions doing cutting-edge work in the energy sector of the economy.

First established as the Manned Spacecraft Center (MSC) in 1961, it was later named the Lyndon B. Johnson Space Center (JSC) in honor of the late President.

The JSC is responsible for the design, development, and operation of human space flight.

For more than four decades, JSC has been the world leader in human space flight operations for NASA.

The critical thing to understand about what JSC means to human space flight is to understand the importance of a critical mass of experts that are working collaboratively from the training of astronauts to all aspects of the support during missions.

The Center's famed Mission Control Center, or MCC, has been the operational hub of every American human space mission for over 40 years since Gemini IV.

The MCC manages all activity onboard the space station and directs all space shuttle missions, including station assembly flights and Hubble Space Telescope servicing. Construction of the control center began in late 1962.

In addition to conducting mission simulations and operations with flight controllers, space was allocated for key NASA engineering and scientific personnel along with representatives of the major contractors to support each mission.

This increased presence strengthened the problem-solving capabilities of the MCC team.

Today, JCS is comprised of a complex of 100 buildings constructed on 1,620 acres that is known as Space City.

Houston is where the Johnson Space Center was born and remains to this day—a place of boundless imagination in the pursuit of new horizons in space exploration.

There are approximately 3,200 civil servants, including 110 astronauts, employed at Johnson Space Center, and a contract workforce of over 15,000 are the people who prepare people for space missions.

This bill is a matter of national pride, national economic innovation, and most importantly, national security.

I want to note for Congress and the nation that the JSC with continuing to serve a vital role in the next chapter of space exploration for our nation.

Several essential NASA programs are authorized and fully funded separately under this authorization bill.

The bill provides funding for each of the essential tasks that NASA has for the JSC:

the Orion Gateway Program is funded separately,

Extravehicular Activity is funded separately, and

Human Surface Mobility (EHP) Program is funded separately.

The authorization language in this bill makes clear that the Orion Gateway Program, Extravehicular Activity, and Human Surface Mobility (EHP) Program are assigned to the Johnson Space Center.

Language in this bill also provides clarity that all new lunar and Mars samples are under the purview of the JSC.

This is a wise decision given that the JSC maintains over 5 decades of experience and expertise in the stewardship and curation of all current collections of NASA-held Astro-materials.

All U.S. government or U.S. government contracted services involving extraterrestrial material or Astro-materials such as, but not limited to rocks, dust, minerals, meteorites, regolith, ices, organic matter, gasses, and atoms, and including samples collected in space, on other solar system bodies, and on earth will be curated and managed by Johnson Space Center.

NASA's Johnson Space Center shall curate and manage all NASA-held Astro-material sample collections, including providing loans of Astro-material specimens, review of the proposed use, approval of research investigations, education, and public display.

These are NASA Johnson Space Center Human Exploration Programs that are a part of Moon to Mars or Artemis, all funded separately in this bill. They are:

Orion Program;

Gateway Program—Referred to in the bill as ''an outpost in orbit around the moon'';

Extravehicular Activity and Human Surface Mobility (EHP) Program—in the bill ''Spacesuits'' are called out and state any other elements needed to meet the requirement of the Moon to Mars Program; and

Orion, Gateway, and EHP (suits and Mobile systems, rovers), all are critical Programs.

Just as the moon project was a massive endeavor that would touch nearly every aspect of our nation's scientific community and efforts so will the work outlined by this legislation.

The CHIPS Act would invest $52 billion in domestic semiconductor chip manufacturing, and various vital science initiatives to return the United States to its role as the preeminent leader in science and modernization.

These initiatives include efforts to expand diversity and equity in STEM fields by combatting sexual harassment in science workplaces, investing in minority-serving institutions, and expanding fellowship and scholarship opportunities for women in STEM.

It would also focus on scientific initiatives for biological and environmental research that would accelerate the growth of clean energy commercialization and development across the country.

Everything from helium conservation to nuclear physics, to biological threat preparedness, is included in this bill.

Additionally, the CHIPS and Science Act are authorizations for incredibly important innovations happening at NASA.

It would authorize the Artemis Moon Program to work towards the goal of returning American astronauts to the moon, including sending the first woman and person of color.

In addition to resuming goals of lunar landings, the CHIPS and Science Act would prioritize the research necessary to continue the Orion program and bring Americans to Mars.

Several essential NASA programs are authorized and fully funded separately under this authorization bill.

The Orion Program gateway program is funded separately; Extravehicular Activity is funded separately and Human Surface Mobility (EHP) Program is funded separately. The authorization language in this bill makes clear that the Orion Gateway Program, Extravehicular Activity, and Human Surface Mobility (EHP) Program are assigned to the Johnson Space Center.

Language in this bill also provides clarification that all new lunar and Mars samples are the responsibility of the Johnson Space Center.

The other priority I believe should have been included in this bill is a clarification that NASA's Johnson Space Center with over 5 decades of experience and expertise in the stewardship and curation of all current collections of NASA-held Astro-materials should continue in this role for the materials that will be brought back from the moon and Mars to earth for study.

Further, it would have served the mission to make sure that all U.S. government or U.S. government contracted services involving extraterrestrial material or Astro-materials such as but not limited to rocks, dust, minerals, meteorites, regolith, ices, organic matter, gasses, and atoms and including samples collected in space, on other solar systems bodies and earth should be curated and managed by Johnson Space Center.

NASA's Johnson Space Center should be charged with the management of all NASA-held Astro-material sample collections, including providing loans of Astro-material specimens, review of the proposed use, approval of research investigations, education, and public display.

I will support the bill, and pledge to continue to work with my colleagues in the House and Members of the Senate to make sure that the JSC's role in the next chapter of our nation's space exploration includes management of materials returned to earth for study.

In addition to its many improvements to STEM workforce growth and scientific research and development, this bill has a particular focus on America's need for a robust push in semiconductor chip manufacturing.

Much of the funding in H.R. 4346 would be dedicated to building the capacity of the American semiconductor chip industry.

This bill would set aside resources designed to incentivize the construction of potentially 7 to 10 domestic semiconductor fabrication plants.

These plants would be responsible for manufacturing the core of all our modern electronics.

Cars, cell phones, air conditioning units, microwave ovens, medical tools, and laptops all rely on semiconductor chips to transport, connect, feed, and support the American public.

The CHIPS Act would ensure that American consumers retain access to these products during times of international instability.

The United States' ability to manufacture semiconductor chips has been on a steady decline for decades.

In 1990, the U.S. met roughly 40 percent of the world's semiconductor chip capacity.

In 2020, that fell to just 12 percent.

East Asian countries like China, Taiwan, Korea, and Japan are now home to nearly 80 percent of global chip fabrication.

Some of America's largest tech firms, including Google, Apple, and Amazon, rely on a single Taiwanese manufacturer, TSMC, for nearly 90 percent of their chip production.

I have long advanced that chip manufacturing should be domestic because of the critical importance to telecommunication, medical, transportation, national defense, industrial control systems, and financial systems.

The COVID–19 pandemic made evident the limitations of domestic manufacturing capacity in the United States and vulnerabilities in global supply chains.

During the pandemic, our healthcare centers, schools, and other vital industries struggled to import the technological goods they needed to battle the virus, educate our children, and keep our economy running.

Thousands of American people died in hospital beds while hospitals struggled to obtain additional ventilators, oxygen monitors and other necessary medical equipment—medical equipment that rely on semiconductor chips to work.

Delays in supply chains and manufacturing capabilities undoubtedly wasted time and cost countless lives.

This cannot happen again.

The 21st-century world is only able to stay upright through a careful scaffolding of electronic and computer products.

There are some products that we must maintain the ability to produce upon demand to meet domestic need.

With Russia at war with Ukraine and an uncertain future for Chinese and Taiwanese relations, it is more imperative than ever that the manufacturing of semiconductor chips returns to American soil, American businesses, and American control.

With the passage of the CHIPS Act, the United States would rise again to its status as a world leader in the manufacturing of semiconductor chips.

Doing so is an economic and national security necessity.

For years, the United States has neglected to invest in semiconductor manufacturing. Meanwhile, China has invested $150 billion to build its domestic capacity.

If we do not invest in the future of American innovation and excellence now, we are sure to fall behind our East Asian competitors in the future—at the expense of the American people.

In addition to the provision of funding for manufacturing facilities, the CHIPS Act includes about $100 billion for the research and development of secure semiconductors and secure microelectronic supply chains.

This would include the creation of a Subcommittee on Microelectronics Leadership which would be tasked with developing a national strategy for the creation of a robust microelectronics industry in the United States and setting priorities for the maintenance of American leadership in advanced chip design and production.

This is our opportunity to secure the economic and national security of our nation.

It is our opportunity to provide much-needed jobs and industry.

It is our opportunity to return the United States of America to its position of prominence and example as a world leader in innovation and manufacturing.

Made in America is good for business, it's good for security, and it's good for our people.

That is why I wholeheartedly support the passage of the CHIPS and Science Act of 2022.

I include in the RECORD a list of NASA bills I have sponsored and cosponsored.

1. H.R. 5250—117th Congress (2021–2022) Advancing Human Spaceflight Act of 2021 Sponsor: Rep. Garcia, Sylvia R. [D–TX–29] (Introduced 09/14/2021) Cosponsors: (2) Committees: House—Science, Space, and Technology Latest Action: House—09/14/2021 Referred to the Subcommittee on Space and Aeronautics.

2. H.R. 869—117th Congress (2021–2022) RISE Act of 2021 Sponsor: Rep. DeGette, Diana [D–CO–1] (Introduced 02/05/2021) Cosponsors: (178) Committees: House—Science, Space, and Technology; Agriculture; Armed Services; Education and Labor; Energy and Commerce; Natural Resources; Transportation and Infrastructure Latest Action: House—03/03/2021 Referred to the Subcommittee for Indigenous Peoples of the United States.

3. H.R. 7308—116th Congress (2019–2020) RISE Act Sponsor: Rep. DeGette, Diana [D–CO–1] (Introduced 06/24/2020) Cosponsors: (147) Committees: House—Science, Space, and Technology; Agriculture; Armed Services; Education and Labor; Energy and Commerce; Natural Resources Latest Action: House—08/13/2020 Referred to the Subcommittee on Biotechnology, Horticulture, and Research.

4. H.R. 4304—116th Congress (2019–2020) NASA Enhanced Use Lease Authority Act of 2019 Sponsor: Rep. Palazzo, Steven M. [R–MS–4] (Introduced 09/12/2019) Cosponsors: (40) Committees: House—Science, Space, and Technology Latest Action: House—09/12/2019 Referred to the House Committee on Science, Space, and Technology.

5. H.R. 1865—116th Congress (2019–2020) Further Consolidated Appropriations Act, 2020 Sponsor: Rep. Pascrell, Bill, Jr. [D–NJ–9] (Introduced 03/25/2019) Cosponsors: (304) Committees: House—Financial Services Committee Print: H.Prt. 116–44 Latest Action: 12/20/2019 Became Public Law No: 116–94.

6. H.R. 1396—116th Congress (2019–2020) Hidden Figures Congressional Gold Medal Act Sponsor: Rep. Johnson, Eddie Bernice [D–TX–30] (Introduced 02/27/2019) Cosponsors: (314) Committees: House—Financial Services; House Administration Latest Action: 11/08/2019 Became Public Law No: 116–68.

7. H.R. 255—111th Congress (2009–2010) NASA 50th Anniversary Commemorative Coin Act Sponsor: Rep. Jackson Lee, Sheila [D–TX–18] (Introduced 01/07/2009) Cosponsors: (2) Committees: House—Financial Services Latest Action: House—01/07/2009 Referred to the House Committee on Financial Services.

8. H.R. 6455—110th Congress (2007–2008) NASA 50th Anniversary Commemorative Coin Act Sponsor: Rep. Jackson Lee, Sheila [D–TX–18] (Introduced 07/10/2008) Cosponsors: (1) Committees: House—Financial Services Latest Action: Senate—07/16/2008 Received in the Senate. Read twice. Placed on Senate Legislative Calendar under General Orders. Calendar No. 885.

9. H. Res. 1315—110th Congress (2007–2008) Commemorating the 50th Anniversary of the National Aeronautics and Space Administration. Sponsor: Rep. McCaul, Michael T. [R–TX–10] (Introduced 06/26/2008) Cosponsors: (44) Committees: House—Science and Technology Latest Action: House—07/10/2008 Motion to reconsider laid on the table Agreed to without objection.

10. H. Amdt. 1096—110th Congress (2007–2008) Description: Amendment to clarify that the NASA Outreach and Technology Assistance Program will include small, minority-owned, and women-owned businesses. It would also give preference, in selection for the program, to socially and economically disadvantaged small business concerns, small business concerns owned and controlled by service-disabled veterans, and HUBZone small business concerns. Amends Bill: H.R. 6063 Sponsor: Rep. Jackson Lee, Sheila [D–TX–18] (Offered 06/12/2008) Latest Action: 06/12/08 On agreeing to the Jackson-Lee (TX) amendment (Ao12) Agreed to by voice vote.

11. H. Amdt. 691—110th Congress (2007–2008) Description: Amendment to prohibit the funds made available in this Act may be used in violation of Subtitle A of Title VIII (International Space Station Independent Safety Taskforce) of the NASA Authorization Act of 2005. Amends Bill: H.R. 3093 Sponsor: Rep. Jackson Lee, Sheila [D–TX–18] (Offered 07/26/2007) Latest Action: 07/26/07 On agreeing to the Jackson Lee (TX) amendment (A049) Agreed to by voice vote.

12. H.R. 2750—110th Congress (2007–2008) NASA 50th Anniversary Commemorative Coin Act Sponsor: Rep. Jackson Lee, Sheila [D–TX–18] (Introduced 06/15/2007) Cosponsors: (296) Committees: House—Financial Services, Senate—Banking, Housing, and Urban Affairs Latest

Action: Senate—08/03/2007 Read twice and referred to the Committee on Banking, Housing, and Urban Affairs.

13. H.R. 2500—110th Congress (2007–2008) NASA and JPL 50th Anniversary Commemorative Coin Act Sponsor: Rep. Jackson Lee, Sheila [D–TX–18] (Introduced 05/24/2007) Cosponsors: (1) Committees: House—Financial Services Latest Action: House—05/24/2007 Referred to the House Committee on Financial Services.

14. H. Res. 446—110th Congress (2007–2008) Honoring the life and accomplishments of Astronaut Walter Marty Schirra and expressing condolences on his passing. Sponsor: Rep. Bilbray, Brian P. [R–CA–50] (Introduced 05/24/2007) Cosponsors: (7) Committees: House—Science and Technology Latest Action: House—06/06/2007 Motion to reconsider laid on the table Agreed to without objection.

15. H. Res. 316—110th Congress (2007–2008) Recognizing the accomplishments of Roger D. Kornberg, Andrew Fire, Craig Mello, John C. Mather, and George F. Smoot for being awarded Nobel Prizes in the fields of chemistry, physiology or medicine, and physics.

Sponsor: Rep. McNerney, Jerry [D–CA–11] (Introduced 04/18/2007) Cosponsors: (9) Committees: House—Science and Technology Latest Action: House—05/01/2007 Motion to reconsider laid on the table Agreed to without objection.

16. H.R. 363—110th Congress (2007–2008) Sowing the Seeds Through Science and Engineering Research Act Sponsor: Rep. Gordon, Bart [D–TN–6] (Introduced 01/10/2007) Cosponsors: (18) Committees: House—Science and Technology, Senate—Health, Education, Labor, and Pensions Committee Report: H. Rept. 110–39 Latest Action: Senate—04/25/2007 Received in the Senate and Read twice and referred to the Committee on Health, Education, Labor, and Pensions.

17. H. Con. Res. 448—109th Congress (2005–2006) Commending the National Aeronautics and Space Administration on the completion of the Space Shuttle's second Return-to-Flight mission. Sponsor: Rep. Paul, Ron [R–TX–14] (Introduced 07/13/2006) Cosponsors: (34) Committees: House—Science Latest Action: Senate—07/21/2006 Message on Senate action sent to the House.

18. H.R. 5356—109th Congress (2005–2006) Research for Competitiveness Act Sponsor: Rep. McCaul, Michael T. [R–TX–10] (Introduced 05/11/2006) Cosponsors: (31) Committees: House—Science Committee Report: H. Rept. 109–525 Latest Action: House—06/22/2006 Placed on the Union Calendar, Calendar No. 294.

19. H. Con. Res. 366—109th Congress (2005–2006) To congratulate the National Aeronautics and Space Administration on the 25th anniversary of the first flight of the Space Transportation System, to honor Commander John Young and the Pilot Robert Crippen, who flew Space Shuttle Columbia on April 12–14, 1981, on its first orbital test flight, and to commend the men and women of the National Aeronautics and Space Administration and all those supporting America's space program for their accomplishments and their role in inspiring the American people. Sponsor: Rep. Calvert, Ken [RCA–44] (Introduced 03/29/2006) Cosponsors: (52) Committees: House—Science Latest Action: Senate—04/07/2006 Message on Senate action sent to the House.

20. H. Amdt. 512—109th Congress (2005–2006) Description: Amendment requires the NASA Administrator to transmit to Congress a plan describing steps to be taken by NASA to protect the employment status of NASA employees who raise or have raised concerns about a potentially catastrophic risk to health or safety. Amends Bill: H.R. 3070 Sponsor: Rep. Jackson Lee, Sheila [D–TX–18] (Offered 07/22/2005) Latest Action: 07/22/05 On agreeing to the Jackson Lee (TX) amendment (A005) Agreed to by voice vote.

21. H. Amdt. 510—109th Congress (2005–2006) Amends Bill: H.R. 3070 Sponsor: Rep. Jackson Lee, Sheila [D–TX–18] (Offered 07/22/2005) Latest Action: 07/22/05 By unanimous consent, the Jackson Lee (TX) amendment was withdrawn.

22. H.R. 3250—109th Congress (2005–2006) National Aeronautics and Space Administration Authorization Act of 2005 Sponsor: Rep. Gordon, Bart [D–TN–6] (Introduced 07/12/2005) Cosponsors: (19) Committees: House—Science Latest Action: House—07/27/2005 Referred to the Subcommittee on Space and Aeronautics. Notes: For further action, see S. 1281, which became Public Law 109–155 on 12/30/2005.

23. H. Amdt. 284—109th Congress (2005–2006) Amends Bill: H.R. 2862 Sponsor: Rep. Jackson Lee, Sheila [D–TX–18] (Offered 06/15/2005) Latest Action: 06/15/05 On agreeing to the Jackson Lee (TX) amendment (A037) Agreed to by voice vote.

24. H. Amdt. 254—109th Congress (2005–2006) Amends Bill: H.R. 2862 Sponsor: Rep. Jackson Lee, Sheila [D–TX–18] (Offered 06/14/2005) Latest Action: 06/14/05 By unanimous consent, the Jackson Lee (TX) amendment was withdrawn.

25. H.R. 68—109th Congress (2005–2006) NASA and JPL 50th Anniversary Commemorative Coin Act Sponsor: Rep. Culberson, John Abney [R–TX–7] (Introduced 01/04/2005) Cosponsors: (290) Committees: House—Financial Services; Ways and Means, Senate—Banking, Housing, and Urban Affairs Committee Report: H. Rept. 109–133 Latest Action: Senate—07/13/2005 Received in the Senate and Read twice and referred to the Committee on Banking, Housing, and Urban Affairs.

26. H.R. 4881—108th Congress (2003–2004) NASA and JPL 50th Anniversary Commemorative Coin Act Sponsor: Rep. Culberson, John Abney [R–TX–7] (Introduced 07/21/2004) Cosponsors: (347) Committees: House—Financial Services Latest Action: House—08/03/2004 Referred to the Subcommittee on Domestic and International Monetary Policy, Trade, and Technology.

27. H. Res. 723—108th Congress (2003–2004) Recognizing the 35th anniversary of the Apollo 11 lunar landing, and for other purposes. Sponsor: Rep. Hall, Ralph M. [R–TX–4] (Introduced 07/19/2004) Cosponsors: (27) Committees: House—Science Latest Action: House—07/21/2004 Motion to reconsider laid on the table Agreed to without objection.

28. H.R. 4522—108th Congress (2003–2004) International Space Station Independent Safety Commission Act of 2004 Sponsor: Rep. Jackson Lee, Sheila [D–TX–18] (Introduced 06/08/2004) Cosponsors: (0) Committees: House—Science Latest Action: House—06/14/2004 Referred to the Subcommittee on Space and Aeronautics.

29. H. Res. 550—108th Congress (2003–2004) Expressing the sense of the House of Representatives relating to the extraordinary contributions resulting from the Hubble Space Telescope to scientific research and education, and to the need to reconsider future service missions to the Hubble Space Telescope. Sponsor: Rep. Udall, Mark [D–CO–2] (Introduced 03/03/2004) Cosponsors: (77) Committees: House—Science Latest Action: House—03/03/2004 Referred to the House Committee on Science.

30. H. Res. 490—108th Congress (2003–2004) Recognizing and commending the achievements of the National Aeronautics and Space Administration, the Jet Propulsion Laboratory, and Cornell University in conducting the Mars Exploration Rover mission, and recognizing the importance of space exploration. Sponsor: Rep. Dreier, David [R–CA–26] (Introduced 01/20/2004) Cosponsors: (31) Committees: House—Science Latest Action: House—01/21/2004 Motion to reconsider laid on the table Agreed to without objection.)

The SPEAKER pro tempore (Mr. PAPPAS). The gentlewoman is no longer recognized.

The Chair reminds all Members to please heed the gavel.

Mr. LUCAS. Mr. Speaker, I continue to reserve the balance of my time.

Ms. JOHNSON of Texas. Mr. Speaker, I yield 1 minute to the gentlewoman from Ohio (Mrs. BEATTY).

Mrs. BEATTY. Mr. Speaker, I thank Chairwoman JOHNSON for yielding.

Let me just take point of personal privilege as a Member of this House and salute the gentlewoman for her leadership, her experience, and the years that she has given to this Congress.

I don't care what any colleague says on the other side of the aisle. Today, because of the gentlewoman's leadership and all others on this end—some on the other side—understand that this is about national security, understand that this is about our economy, and understand that this is about our workforce.

I am so proud to be from the great State of Ohio. It will be a game-changer with tens of billions of dollars being invested into what may end up as the largest semiconductor manufacturing plant in the world.

I will tell you, Mr. Speaker, that Democrats will stand strong because we understand the difference from politics and posturing and making a difference in industries that we all use and need.

Mr. Speaker, I am asking all of my delegation, Democrats and Republicans, to stand up for what is right and vote for this bill.

The SPEAKER pro tempore. The time of the gentlewoman has expired.

Ms. JOHNSON of Texas. Mr. Speaker, I yield an additional 1 minute to the gentlewoman from Ohio.

Mrs. BEATTY. Mr. Speaker, let me also end by saying that this bill will set a path that the United States will be a leader in the economy for the future.

I have listened repeatedly to Members on the other side of the aisle talk about inflation, talk about investment, and talk about economics. Now I want them to vote that way. I want them to join us and support this bill that will make a difference for not only now but for our future and set us up ahead of other countries that have done damage to us.

Mr. LUCAS. Mr. Speaker, I continue to reserve the balance of my time.

Ms. JOHNSON of Texas. Mr. Speaker, may I ask how much time I have remaining?

The SPEAKER pro tempore. The gentlewoman from Texas has 3½ minutes remaining.

Ms. JOHNSON of Texas. Mr. Speaker, I have no more requests for time, and I am prepared to close.

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Mr. LUCAS. Mr. Speaker, I have no additional speakers and I, too, am prepared to close. I yield myself the balance of my time.

Mr. Speaker, as I said in my opening remarks, I am deeply disappointed by the process that led us here, especially over the last 24 hours. Had Democratic leadership acted in good faith, we would be having a very different discussion today.

I would prefer that our bipartisan strategic competitiveness policy had not been tied to the partisan and divisive reconciliation legislation. But it would be dishonest to pretend that that hasn't been the case.

And after long and careful thought for what reconciliation will mean to the economy, the expanded government, and the American people, I cannot, in good conscience, vote for the $52

billion in mandatory spending; while knowing that hundreds of billions in taxes and partisan spending are about to bulldoze us.

We know the numbers, but it is worth repeating them because they are more than numbers. As someone who studied economics, I am very cognizant that these are, in fact, a representation of the daily life for families across America.

Inflation has skyrocketed to 9.1 percent. Every dollar in your wallets, in your paycheck, in your retirement account, every dollar is now worth less.

The next set of numbers is 1.6 and 0.9. Those are the most recent declines in our Gross Domestic Product, GDP.

While my friends on the other side of the aisle want to debate the definition of recession, let's put that nitpicking aside and step back for a moment and consider the big picture, what this means for Americans.

Our economic growth is slowing. Our inflation is rising. Our job growth is tapering off. Americans are unquestionably worse off now than they were a year ago; and that is what I have to consider when casting today's vote.

What we need right now is policy to make our economy stronger and more competitive; not backroom deals that increase taxes on businesses and raise government spending.

As I said at the start of this debate, I am incredibly proud of the work the House Science, Space, and Technology Committee has done to create thoughtful, strategic, sustainable science and technology policy. I am grateful to Chairwoman JOHNSON, to the Republican and Democrat members of the Science Committee, and to all the staffers who worked to advance this legislation.

While others may try to take credit, the truth is division B was primarily developed and written by our committee, which has been working on this issue for longer than anyone on the Hill.

I would like very much to cast my vote in support of our research and development policies, but I cannot ignore the consequences of doing so, alongside a deeply flawed reconciliation package. I owe it to my constituents to vote in their best interests. And today, that means voting against the legislation I have long supported.

I will conclude with this: I believe the bipartisan leadership of the House Science, Space, and Technology Committee represents the best that Congress can be when we work together in a transparent fashion to come to agreements that serve the American people.

I believe that actions taken by Democratic leadership yesterday are a sad example of the dysfunction that plagues Congress when we ignore these details. I am deeply disappointed in this process.

Even with all my admiration for my chairwoman, and all the respect for our mutual members and our staffs, even with all that, Mr. Speaker, I yield back the balance of my time.

Ms. JOHNSON of Texas. Mr. Speaker, I yield myself the balance of my time.

I would simply like to say in closing that when we pass up an opportunity that we have like today in this bill, where we are looking out for our scientific enterprise, looking out for our space exploration and chip manufacturing, which will drive our future, we simply will be closing the door to our future to turn any of this down.

We cannot be competitive in the world without adequate research and adequate assistance to keep our research enterprise growing strongly. I am not willing to give up this opportunity and close the door on my Nation.

And I simply would ask all the people who possibly can, not to think about the bill that was passed or going to pass in the Senate yesterday, or last night, but think about the importance of keeping the doors and opportunities open for our Nation and having the jobs and talent right here in the United States.

It is bigger than all of us. We were sent here to look out for our Nation, and this is a measure that will do that. So I simply plead with everyone who can possibly see the future, or even dream about the future, to vote for this measure.

Mr. Speaker, I urge my colleagues to support H.R. 4346, and I yield back the balance of my time.

Mr. SOTO. Mr. Speaker, I want to commend the authors of the CHIPS Act of 2022 for including $52.7 billion to incentivize investments and continued American leadership in semiconductor manufacturing to help address supply chain disruptions and ensure that more semiconductors are produced here at home. Currently, only 12 percent of chips are manufactured domestically, compared to 37 percent in the 1990s. The CHIPS Act of 2022 will ensure the Congressional goal of promoting domestic competitiveness and the Act also includes safeguards to ensure that recipients of Federal funds from these programs cannot build advanced semiconductor production facilities in countries that present a national security concern.

Within my central Florida district is the NeoCity technology campus which is recognized as an emerging microelectronics manufacturing and advanced packaging hub, that has already made synergies with institutions of higher education across Florida and key partnerships with the U.S. Department of Defense and U.S. Department of Commerce. NeoCity is home to BRIDG, a not for-profit, public-private partnership specializing in domestic semiconductor research, advanced packaging, and manufacturing. Imec, a world-renowned international research and development organization active in semiconductor design and architecture. SUSS MicroTec and TEL, leading suppliers of equipment and process solutions for the semiconductor industry. And Sky Water Technology, the only U.S. owned and operated pure play trusted foundry, that works on leading edge advanced packaging technology. They all work in collaboration out of the Center for Neovation, one of the most state-of-the-art advanced manufacturing facilities in the western hemisphere. As envisioned by this important legislation, the facilities, and experts at BRIDG, imec, SUSS MicroTec, TEL, and Sky Water Technology offer immediate capability to accelerate U.S. production of critical semiconductor chips, strengthen the domestic supply chain so chips are made in America, and turbocharge our research capacity. Equally as important, the NeoCity Academy, a public STEM magnet high school, is training the leaders of tomorrow's science and technology workforce.

I am proud of the work being undertaken in my district to support domestic semiconductor manufacturing technology development as they work to address the supply chain. I look forward to working with the Administration and the U.S. Department of Commerce on implementation of the CHIPS for America Fund.

Additionally, I appreciate the inclusion of two provisions that I submitted that were included in the final passage, one amendment and one standalone bill. One COMPETES Act amendment was included to extend non-profits to be included in CHIPS funding. Specifically, the provision adds nonprofits to the definition of ''covered entities'' to expand the semiconductor incentive program to include nonprofit entities, which clarifies that non-profit entities like the 501(c)(3) fatalities in NeoCity are also eligible for funding under the semiconductor incentive program. Finally, I appreciate the inclusion of a standalone bill, H.R. 8545, that Requires the Director of the Office of Science and Technology Policy to establish a blockchain and cryptocurrencies advisory specialist position within the Office to advise the President on matters related to blockchain and cryptocurrencies. OSTP advises the President and others within the Executive Office of the President on the scientific, engineering, and technological aspects of the economy, national security, homeland security, health, foreign relations, and the environment. it is critical to create such a position within OSTP to ensure there is a policy expert.

Mr. BEYER. Mr. Speaker, I rise today in strong support of the CHIPS and Science Act.

As a member of the Science, Space, and Technology Committee and as chair of the Space and Aeronautics Subcommittee, I couldn't be more thrilled to pass this historic bill today.

The bill makes transformational new investments in research, innovation, and American manufacturing, which will bolster our leadership across the globe.

I want to take a moment to highlight some of the specific provisions that I championed along the way. The CHIPS and Science Act includes my National Secure Data Service Act, which will create a pilot program at the National Science Foundation to test different approaches on how we can link government-wide data.

Right now, the lack of coordination across the federal government's data infrastructure limits the ability to generate timely information that is needed to promote evidence-based policymaking.

Another provision I am thrilled with is the inclusion of the DOE Science for the Future Act.

This provision includes a massive investment into our fusion energy R&D enterprise.

We are on the cusp of bringing fusion energy to the grid in the next decade and I am so excited that this bill will bolster our research and efforts on it at DOE.

Finally, I am over the moon (pun intended) about the inclusion of a NASA Authorization in the final package.

Congress has not authorized NASA since 2017, and this has been my number one priority since taking over the chairmanship of the Space and Aeronautics Subcommittee last year.

The bill authorizes key programs at NASA including Artemis, ISS extension, sustainable aviation, space nuclear systems, and many science missions.

It also contains my Cleaner, Quieter Airplanes Act and NASA Enhanced Use Leasing Act—both huge wins for NASA and our communities.

Simply put, the CHIPS and Science Act will be a huge boon to our nation's leadership in key areas and I am so looking forward to voting a resounding yes.

The SPEAKER pro tempore. All time for debate has expired.

Pursuant to House Resolution 1289, the previous question is ordered.

The question is on the motion by the gentlewoman from Texas (Ms. JOHNSON).

The question was taken; and the Speaker pro tempore announced that the ayes appeared to have it.

Mr. LUCAS. Mr. Speaker, on that I demand the yeas and nays.

The yeas and nays were ordered.

The vote was taken by electronic device, and there were—yeas 243, nays 187, answered ''present'' 1, not voting 0, as follows:

[Roll No. 404]

YEAS—243

Adams
Aguilar
Allred
Auchincloss
Axne
Baird
Balderson
Barragán
Bass
Beatty
Bera
Beyer
Bishop (GA)
Blumenauer
Blunt Rochester
Bonamici
Bourdeaux
Bowman
Boyle, Brendan F.
Brown (MD)
Brown (OH)
Brownley
Bush
Bustos
Butterfield
Carbajal
Cárdenas
Carey
Carson
Carter (LA)
Cartwright
Case
Casten
Castor (FL)
Castro (TX)
Chabot
Cheney
Cherfilus-McCormick
Chu
Cicilline
Clark (MA)
Clarke (NY)
Cleaver
Clyburn
Cohen
Cole
Connolly
Cooper
Correa
Costa
Courtney
Craig
Crist
Crow
Cuellar
Davids (KS)
Davis, Danny K.
Davis, Rodney
Dean
DeFazio
DeGette
DeLauro
DelBene
Demings
DeSaulnier
Deutch
Dingell
Doggett
Doyle, Michael F.
Escobar
Eshoo
Espaillat
Evans
Fitzpatrick
Fletcher
Foster
Frankel, Lois
Gallego
Garamendi
Garcia (CA)
García (IL)
Garcia (TX)
Gibbs
Golden
Gomez
Gonzalez (OH)
Gonzalez, Vicente
Gottheimer
Granger
Green, Al (TX)
Grijalva
Harder (CA)
Hayes
Higgins (NY)
Himes
Hollingsworth
Horsford
Houlahan
Hoyer
Huffman
Jackson Lee
Jacobs (NY)
Jayapal
Jeffries
Johnson (GA)
Johnson (OH)
Johnson (TX)
Jones
Joyce (OH)
Kahele
Kaptur
Katko
Keating
Kelly (IL)
Khanna
Kildee
Kilmer
Kim (CA)
Kim (NJ)
Kind
Kinzinger
Kirkpatrick
Krishnamoorthi
Kuster
Lamb
Langevin
Larsen (WA)
Larson (CT)
Lawrence
Lawson (FL)
Lee (CA)
Lee (NV)
Leger Fernandez
Levin (CA)
Levin (MI)
Lieu
Lofgren
Lowenthal
Luria
Lynch
Malinowski
Maloney, Carolyn B.
Maloney, Sean
Manning
Matsui
McBath
McCaul
McCollum
McEachin
McGovern
McKinley
McNerney
Meeks
Meijer
Meng
Mfume
Moore (WI)
Morelle
Moulton
Mrvan
Murphy (FL)
Nadler
Napolitano
Neal
Neguse
Newman
Norcross
O'Halleran
Ocasio-Cortez
Omar
Pallone
Panetta
Pappas
Pascrell
Payne
Pelosi
Perlmutter
Peters
Phillips
Pingree
Pocan
Porter
Pressley
Price (NC)
Quigley
Raskin
Rice (NY)
Ross
Roybal-Allard
Ruiz
Ruppersberger
Rush
Ryan
Sánchez
Sarbanes
Scanlon
Schakowsky
Schiff
Schneider
Schrader
Schrier
Scott (VA)
Scott, David
Sewell
Sherman
Sherrill
Sires
Slotkin
Smith (WA)
Soto
Spanberger
Speier
Stansbury
Stanton
Stevens
Strickland
Suozzi
Swalwell
Takano
Thompson (CA)
Thompson (MS)
Titus
Tlaib
Tonko
Torres (CA)
Torres (NY)
Trahan
Trone
Turner
Underwood
Upton
Vargas
Veasey
Velázquez
Wasserman Schultz
Waters
Watson Coleman
Welch
Wexton
Wild
Williams (GA)
Wilson (FL)
Yarmuth

NAYS—187

Aderholt
Allen
Amodei
Armstrong
Arrington
Babin
Bacon
Banks
Barr
Bentz
Bergman
Bice (OK)
Biggs
Bilirakis
Bishop (NC)
Boebert
Bost
Brady
Brooks
Buchanan
Buck
Bucshon
Budd
Burchett
Burgess
Calvert
Cammack
Carl
Carter (GA)
Carter (TX)
Cawthorn
Cline
Cloud
Clyde
Comer
Conway
Crawford
Crenshaw
Curtis
Davidson
DesJarlais
Diaz-Balart
Donalds
Duncan
Dunn
Ellzey
Emmer
Estes
Fallon
Feenstra
Ferguson
Fischbach
Fitzgerald
Fleischmann
Flood
Flores
Foxx
Franklin, C. Scott
Fulcher
Gaetz
Gallagher
Garbarino
Gimenez
Gohmert
Gonzales, Tony
Good (VA)
Gooden (TX)
Gosar
Graves (LA)
Graves (MO)
Green (TN)
Greene (GA)
Griffith
Grothman
Guest
Guthrie
Harris
Harshbarger
Hartzler
Hern
Herrell
Herrera Beutler
Hice (GA)
Higgins (LA)
Hill
Hinson
Hudson
Huizenga
Issa
Jackson
Johnson (LA)
Johnson (SD)
Jordan
Joyce (PA)
Keller
Kelly (MS)
Kelly (PA)
Kustoff
LaHood
LaMalfa
Lamborn
Latta
LaTurner
Lesko
Letlow
Long
Loudermilk
Lucas
Luetkemeyer
Mace
Malliotakis
Mann
Massie
Mast
McCarthy
McClain
McClintock
McHenry
Meuser
Miller (IL)
Miller (WV)
Miller-Meeks
Moolenaar
Mooney
Moore (AL)
Moore (UT)
Mullin
Murphy (NC)
Nehls
Newhouse
Norman
Obernolte
Owens
Palazzo
Palmer
Pence
Perry
Pfluger
Posey
Reschenthaler
Rice (SC)
Rodgers (WA)
Rogers (AL)
Rogers (KY)
Rose
Rosendale
Rouzer
Roy
Rutherford
Salazar
Scalise
Schweikert
Scott, Austin
Sessions
Simpson
Smith (MO)
Smith (NE)
Smith (NJ)
Smucker
Spartz
Stauber
Steel
Stefanik
Steil
Steube
Stewart
Taylor
Tenney
Thompson (PA)
Tiffany
Timmons
Valadao
Van Drew
Van Duyne
Wagner
Walberg
Walorski
Waltz
Weber (TX)
Webster (FL)
Wenstrup
Westerman
Williams (TX)
Wilson (SC)
Wittman
Womack
Zeldin

ANSWERED ''PRESENT''—1

Jacobs (CA)

□ 1506

Messrs. SIMPSON and MEUSER changed their vote from ''yea'' to ''nay.''

So the bill was passed.

The result of the vote was announced as above recorded.

A motion to reconsider was laid on the table.

MEMBERS RECORDED PURSUANT TO HOUSE RESOLUTION 8, 117TH CONGRESS

Babin (Weber (TX))
Barragán (Correa)
Bass (Neguse)
Blumenauer (Beyer)
Bourdeaux (Correa)
Bush (Bowman)
Carter (LA) (Neguse)
Carter (TX) (Weber (TX))
Cherfilus-McCormick (Neguse)
Crist (Wasserman Schultz)
DeSaulnier (Beyer)
Evans (Beyer)
Gosar (Gaetz)
Green (TN) (Fleischmann)
Guthrie (Barr)
Hartzler (Moore (UT))
Huffman (Neguse)
Jones (Beyer)
Joyce (PA) (Keller)
Kahele (Correa)
Kinzinger (Meijer)
Kirkpatrick (Pallone)
Levin (MI) (Correa)
McBath (Bishop (GA))
McNerney (Pallone)
Moore (WI) (Beyer)
Rice (SC) (Meijer)
Ruppersberger (Trone)
Sires (Pallone)
Stevens (Kuster)
Stewart (Crawford)
Taylor (Armstrong)
Thompson (CA) (Beyer)
Trahan (Trone)
Vargas (Correa)
Walorski (Banks)
Williams (GA) (Neguse)
Wilson (SC) (Norman)

PERMISSION FOR MEMBER TO BE CONSIDERED AS FIRST SPONSOR OF H.R. 4270

Mr. SCHWEIKERT. Mr. Speaker, I ask unanimous consent that I may hereafter be considered to be the first sponsor of H.R. 4270, a bill originally introduced by Representative REED of New York, for the purpose of adding cosponsors and requesting reprintings pursuant to clause 7 of rule XII.

The SPEAKER pro tempore (Mr. CUELLAR). Is there objection to the request of the gentleman from Arizona?

There was no objection.

CONTINUATION OF THE NATIONAL EMERGENCY WITH RESPECT TO LEBANON—MESSAGE FROM THE PRESIDENT OF THE UNITED STATES (H. DOC. NO. 117–137)

The SPEAKER pro tempore laid before the House the following message from the President of the United States; which was read and, together with the accompanying papers, referred to the Committee on Foreign Affairs and ordered to be printed:

To the Congress of the United States:

Section 202(d) of the National Emergencies Act (50 U.S.C. 1622(d)) provides for the automatic termination of a national emergency unless, within 90 days prior to the anniversary date of its declaration, the President publishes in the *Federal Register* and transmits to the Congress a notice stating that the emergency is to continue in effect beyond the anniversary date. In accordance with this provision, I have sent to the *Federal Register* for publication the enclosed notice stating that the national emergency with respect to Lebanon declared in Executive Order 13441 of August 1, 2007, is to continue in effect beyond August 1, 2022.

Certain ongoing activities, such as Iran's continuing arms transfers to Hizballah—which include increasingly sophisticated weapons systems—serve to undermine Lebanese sovereignty, contribute to political and economic instability in the region, and continue to constitute an unusual and extraordinary threat to the national security and foreign policy of the United States. Therefore, I have determined that it is necessary to continue the national emergency declared in Executive Order 13441 with respect to Lebanon.

JOSEPH R. BIDEN, Jr.
THE WHITE HOUSE, *July 28, 2022.*

□ 1515

BIG CAT PUBLIC SAFETY ACT

Mr. CASE. Madam Speaker, pursuant to House Resolution 1256, I call up the bill (H.R. 263) to amend the Lacey Act Amendments of 1981 to clarify provisions enacted by the Captive Wildlife Safety Act, to further the conservation of certain wildlife species, and for other purposes, and ask for its immediate consideration in the House.

The Clerk read the title of the bill.

The SPEAKER pro tempore. Pursuant to House Resolution 1256, the amendment in the nature of a substitute recommended by the Committee on Natural Resources, printed in the bill, is adopted, and the bill, as amended, is considered read.

The text of the bill, as amended, is as follows:

H.R. 263

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Big Cat Public Safety Act''.

SEC. 2. DEFINITIONS.

(a) IN GENERAL.—Section 2 of the Lacey Act Amendments of 1981 (16 U.S.C. 3371) is amended—

(1) by redesignating subsections (a) through (k) as subsections (b) through (l), respectively; and

(2) by inserting before subsection (b) (as so redesignated) the following:

''(a) BREED.—The term 'breed' means to facilitate propagation or reproduction (whether intentionally or negligently), or to fail to prevent propagation or reproduction.''.

(b) CONFORMING AMENDMENTS.—

(1) CONSOLIDATED FARM AND RURAL DEVELOPMENT ACT.—Section 349(a)(3) of the Consolidated Farm and Rural Development Act (7 U.S.C. 1997(a)(3)) is amended—

(A) by striking ''section 2(a)'' and inserting ''section 2''; and

(B) by striking ''3371(a)'' and inserting ''3371''.

(2) LACEY ACT AMENDMENTS OF 1981.—Section 7(c) of the Lacey Act Amendments of 1981 (16 U.S.C. 3376(c)) is amended by striking ''section 2(f)(2)(A)'' and inserting ''section 2(g)(2)(A)''.

SEC. 3. PROHIBITIONS.

Section 3 of the Lacey Act Amendments of 1981 (16 U.S.C. 3372) is amended—

(1) in subsection (a)—

(A) in paragraph (2)—

(i) in subparagraph (A), by striking the semicolon at the end and inserting ''; or'';

(ii) in subparagraph (B)(iii), by striking ''; or'' and inserting a semicolon; and

(iii) by striking subparagraph (C); and

(B) in paragraph (4), by striking ''(1) through (3)'' and inserting ''(1) through (3) or subsection (e)''; and

(2) by amending subsection (e) to read as follows:

''(e) CAPTIVE WILDLIFE OFFENSE.—

''(1) IN GENERAL.—Except as provided in paragraph (2), it is unlawful for any person to—

''(A) import, export, transport, sell, receive, acquire, or purchase in interstate or foreign commerce, or in a manner substantially affecting interstate or foreign commerce; or

''(B) breed or possess;

any prohibited wildlife species.

''(2) LIMITATION ON APPLICATION.—Paragraph (1) does not apply to—

''(A) an entity exhibiting animals to the public under a Class C license from the Department of Agriculture, or a Federal facility registered with the Department of Agriculture that exhibits animals, if such entity or facility holds such license or registration in good standing and if the entity or facility—

''(i) does not allow any individual to come into direct physical contact with a prohibited wildlife species, unless that individual is—

''(I) a trained professional employee or contractor of the entity or facility (or an accompanying employee receiving professional training);

''(II) a licensed veterinarian (or a veterinary student accompanying such a veterinarian); or

''(III) directly supporting conservation programs of the entity or facility, the contact is not in the course of commercial activity (which may be evidenced by advertisement or promotion of such activity or other relevant evidence), and the contact is incidental to humane husbandry conducted pursuant to a species-specific, publicly available, peer-edited population management and care plan that has been provided to the Secretary with justifications that the plan—

''(aa) reflects established conservation science principles;

''(bb) incorporates genetic and demographic analysis of a multi-institution population of animals covered by the plan; and

''(cc) promotes animal welfare by ensuring that the frequency of breeding is appropriate for the species; and

''(ii) ensures that during public exhibition of a lion (Panthera leo), tiger (Panthera tigris), leopard (Panthera pardus), snow leopard (Uncia uncia), jaguar (Panthera onca), cougar (Puma concolor), or any hybrid thereof, the animal is at least 15 feet from members of the public unless there is a permanent barrier sufficient to prevent public contact;

''(B) a State college, university, or agency, or a State-licensed veterinarian;

''(C) a wildlife sanctuary that cares for prohibited wildlife species, and—

''(i) is a corporation that is exempt from taxation under section 501(a) of the Internal Revenue Code of 1986 and described in sections 501(c)(3) and 170(b)(1)(A)(vi) of such Code;

''(ii) does not commercially trade in any prohibited wildlife species, including offspring, parts, and byproducts of such animals;

''(iii) does not breed any prohibited wildlife species;

''(iv) does not allow direct contact between the public and any prohibited wildlife species; and

''(v) does not allow the transportation and display of any prohibited wildlife species offsite;

''(D) has custody of any prohibited wildlife species solely for the purpose of expeditiously transporting the prohibited wildlife species to a person described in this paragraph with respect to the species; or

''(E) an entity or individual that is in possession of any prohibited wildlife species that was born before the date of the enactment of the Big Cat Public Safety Act, and—

''(i) not later than 180 days after the date of the enactment of the such Act, the entity or individual registers each individual animal of each prohibited wildlife species possessed by the entity or individual with the United States Fish and Wildlife Service;

''(ii) does not breed, acquire, or sell any prohibited wildlife species after the date of the enactment of such Act; and

''(iii) does not allow direct contact between the public and prohibited wildlife species.''.

SEC. 4. PENALTIES.

(a) CIVIL PENALTIES.—Section 4(a)(1) of the Lacey Act Amendments of 1981 (16 U.S.C. 3373(a)(1)) is amended—

(1) by inserting ''(e),'' after ''(d),''; and

(2) by inserting '', (e),'' after ''subsection (d)''.

(b) CRIMINAL PENALTIES.—Section 4(d) of the Lacey Act Amendments of 1981 (16 U.S.C. 3373(d)) is amended—

(1) in paragraph (1)(A), by inserting ''(e),'' after ''(d),'';

(2) in paragraph (1)(B), by inserting ''(e),'' after ''(d),'';

(3) in paragraph (2), by inserting ''(e),'' after ''(d),''; and

(4) by adding at the end the following:

''(4) Any person who knowingly violates section 3(e) shall be fined not more than $20,000, or imprisoned for not more than 5 years, or both. Each violation shall be a separate offense and the offense is deemed to have been committed in the district where the violation first occurred, and in any district in which the defendant may have taken or been in possession of the prohibited wildlife species.''.

SEC. 5. FORFEITURE OF PROHIBITED WILDLIFE SPECIES.

Section 5(a)(1) of the Lacey Act Amendments of 1981 (16 U.S.C. 3374(a)(1)) is amended by inserting ''bred, possessed,'' before ''imported, exported,''.

SEC. 6. ADMINISTRATION.

Section 7(a) of the Lacey Act Amendments of 1981 (16 U.S.C. 3376(a)) is amended by adding at the end the following:

''(3) The Secretary shall, in consultation with other relevant Federal and State agencies, promulgate any regulations necessary to implement section 3(e).''.

The SPEAKER pro tempore. The bill, as amended, shall be debatable for 1 hour equally divided and controlled by the chair and ranking minority member of the Committee on Natural Resources or their respective designees.

After 1 hour of debate, it shall be in order to consider the further amendment printed in part A of House Report 117–444, if offered by the Member designated in the report, which shall be considered read, shall be separately debatable for the time specified in the report equally divided and controlled by the proponent and an opponent, and shall not be subject to a demand for a division of the question.

The gentleman from Hawaii (Mr. CASE) and the gentleman from Arkansas (Mr. WESTERMAN) each will control 30 minutes.

The Chair now recognizes the gentleman from Hawaii (Mr. CASE).

GENERAL LEAVE

Mr. CASE. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days in which to revise and extend their remarks and to insert extraneous material on H.R. 263.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from Hawaii?

There was no objection.

Mr. CASE. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, the question that this bill addresses is whether the private, unregistered ownership and exploitation of big cats, meaning lions, tigers, leopards, jaguars, cougars, and hybrids of them should continue considering significant and real animal welfare, public safety, and law enforcement safety concerns.

H.R. 263, the Big Cat Public Safety Act says no, and would end the ownership of big cats as private pets and prohibit exhibitors from allowing public contact with big cats, including cubs.

This bill is a culmination of over a decade of bipartisan effort. The Big Cat Public Safety Act, in one form or another, has been introduced by, cosponsored by, and generally supported by Republicans and Democrats alike for well over a decade. Since the 112th Congress, Big Cats have garnered 933 bipartisan cosponsors. It was initially introduced by three different Republicans over a number of Congresses, as well as the current Democratic sponsor.

We have continued to refine the bill in the decade since its first introduction. We passed it by suspension last Congress, and I urge my colleagues on both sides of the aisle to support it again now.

The Big Cat Public Safety Act is endorsed not only by numerous environmental, animal welfare, and other organizations, but by countless law enforcement agencies and associations, including the National Sheriffs' Association, the Fraternal Order of Police, State-specific sheriffs' associations, and individual law enforcement officers.

We need to look no further than the compelling testimony from Sheriff Matt Lutz before our Natural Resources Committee to understand the broad concerns with the status quo.

In 2011, specifically, more than 50 exotic animals, including 38 lions, tigers, and cougars were released into the public from a private residence in Zanesville, Ohio, shutting down a highway and terrifying the neighbors.

Sheriff Lutz led the law enforcement response to the crisis. He testified at our hearing this year that his department didn't have any inventory of how many animals there were, they barely even knew that they were there to start with, and his officers weren't trained, obviously, to deal with big cats and other exotic animals released into a public setting en masse.

Incredibly, no one was killed or seriously injured in Zanesville that day, but as Sheriff Lutz testified: ''The outcome could have been much worse if any single condition had been just slightly different, and it could be far worse the next time.''

Precisely because private ownership is unregulated and largely unknown, we don't know how many big cats are currently kept in private ownership in the U.S., but estimates are as high as 20,000.

Privately owned big cats are often purchased or bred as cubs for photo ops, and as they grow larger, they are sold into the exotic pet trade or on the black market for wildlife parts. Adult big cats in private ownership typically live in inhumane conditions that threaten public safety.

Since 1990, around 300 dangerous incidents involving big cats have resulted in human injuries, mauling, and death. In many cases, the animals are shot and killed, as first responders are not equipped for these situations.

In 2003, Congress unanimously passed the Captive Wildlife Safety Act, which amended the Lacey Act to prohibit importing, exporting, buying, selling, transporting, receiving, or acquiring big cats across States and the U.S. border.

Though State laws vary, there is no Federal policy regarding the private possession or use of big cats, and one is critically needed.

This bill narrowly focuses on privately owned animals. It includes exemptions for exhibitors with U.S. Department of Agriculture, or USDA, Class C licenses, and current owners are grandfathered in as long as they register with the U.S. Fish and Wildlife Service and abide by listed regulations.

H.R. 263 will protect first responders and the public, as well as the animals themselves.

In addition to public safety concerns, the exotic cat trade fuels other criminal behavior that we in Congress should not be supporting.

As just one example, the TV series ''Tiger King'' showed us that there is a dark and dangerous side to keeping lions, tigers, and other big cats in captivity. In fact, Joe Exotic from that series is in jail for violating the Lacey Act and the Endangered Species Act.

Now, some opponents of this bill argue that we need to make changes to the bill to help small zoos stay in business. This bill would not affect small zoos. The reality is that most zoos, whether they are big or small, already have policies in place that reflect the Big Cat Public Safety Act standards. They are not going to be asked to do anything that they are not doing already. They don't allow public contact or cub petting, and they already keep cats at a safe distance away from the public. There are only a small few who still allow it, and they shouldn't.

Now, we may hear claims from my colleague on the other side this is a USDA, U.S. Department of Agriculture issue, not a U.S. Fish and Wildlife Service issue. The fact is that the USDA does not regulate private ownership of animals like big cats.

The Fish and Wildlife Service has long been responsible for regulating big cats' interstate transfer and commerce under the Lacey Act and has the authority to regulate the possession and breeding of endangered species, including big cats.

While the USDA provides basic requirements for preventing cruelty to exhibited animals, the Fish and Wildlife Service is the one that must provide stringent standards to ensure that threatened and endangered species are managed to actively promote conservation, regardless of whether the animals are exhibited to the public.

The Big Cat Public Safety Act merely strengthens and expands an already existing framework under the Lacey Act. It is a commonsense, and, again, uniquely bipartisan solution to address public safety and animal abuse concerns.

Mr. Speaker, I include in the RECORD a July 26, 2022, letter from the Congressional Budget Office.

CONGRESSIONAL BUDGET OFFICE,
U.S. CONGRESS,
Washington, DC, July 26, 2022.

Hon. RAÚL M. GRIJALVA,
Chairman, Committee on Natural Resources, House of Representatives, Washington, DC.

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 263, the Big Cat Public Safety Act.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Lilia Ledezma.

Sincerely,

PHILLIP L. SWAGEL.

Enclosure.

H.R. 263, BIG CAT PUBLIC SAFETY ACT—JULY 22, 2022

[By fiscal year, millions of dollars]

	2022	2022–2027	2022–2032
Direct Spending (Outlays)	0	*	*
Revenues	0	*	*
Increase or Decrease (−) in the Deficit	0	*	*
Spending Subject to Appropriation (Outlays)	*	3	**

* = between −$500,000 and $500,000.
** = not estimated.

Statutory pay-as-you-go procedures apply? Yes.

Increases on-budget deficits in any of the four consecutive 10-year periods beginning in 2033? No.

Mandate Effects:

Contains intergovernmental mandate? Yes, Under Threshold.

Contains private-sector mandate? Yes, Under Threshold.

Current law prohibits the import, export, purchase, sale, transport, or acquisition of big cats, such as lions and tigers, across state lines or the national border. H.R. 263 would generally prohibit the breeding and possession of those animals, although wildlife sanctuaries, veterinarians, colleges and universities, zoos, exhibitions, and other entities that meet certain requirements would be exempt. In addition, people who already own such animals would be permitted to keep them if they register with the U.S. Fish and Wildlife Service (USFWS).

For this estimate, CBO assumes that H.R. 263 will be enacted late in fiscal year 2022. The bill would direct USFWS to issue regulations to implement the prohibition on breeding and possession. In addition, CBO expects that under the bill, the Department of Agriculture (USDA) could revise existing regulations on the licensing of entities that possess, exhibit, and breed big cats. Based on the costs of similar tasks, we estimate that developing those regulations would cost $1 million over the 2022–2023 period.

Many states already prohibit ownership of the affected species and CBO expects that people who currently own such animals would register with USFWS. Thus, violations under the bill would probably occur infrequently. On that basis, CBO estimates that

USFWS would incur costs of less than $500,000 annually after 2023 to maintain the registry and conduct enforcement. In total, we estimate that implementing H.R. 263 would cost about $3 million over the 2022–2027 period; such spending would be subject to the availability of appropriated funds.

Under H.R. 263, violators would be subject to criminal and civil penalties, which are recorded in the budget as revenues; some of those penalties could be spent without further appropriation. Thus, enacting the bill would increase revenues and direct spending, but CBO estimates that those increases would be insignificant over the 2022–2032 period because we expect the number of violations would be small.

Because H.R. 263 would either prohibit the possession and breeding of big cats or require owners, exhibitors, and breeders to take actions that would exempt them from the prohibitions, the bill contains intergovernmental and private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA).

Although CBO cannot estimate the cost to comply with some of the bill's mandates, we expect the aggregate cost of the mandates, which would include both lost income and additional expenses to comply with the bill's requirements, would not exceed the annual threshold established in UMRA for intergovernmental and private-sector mandates ($92 million and $184 million respectively, in 2022, adjusted annually for inflation).

The bill would establish different requirements for entities licensed by USDA to possess, exhibit, and breed big cats; for wildlife sanctuaries; and for all other owners to be eligible for an exemption from the prohibitions. Approximately 340 facilities, both public and private, are licensed by USDA to possess, exhibit, and breed big cats.

To qualify for an exemption from the bill's prohibitions, exhibitors would be required to:

Prohibit public contact, with limited exceptions, with the big cats; and

Maintain a 15-foot gap between the public and the animals or erect a permanent barrier.

Approximately 30 exhibitors, including public zoos, allow physical contact with big cats through seasonal encounters with the animals, and about 150 mostly privately-owned facilities host or participate in special fundraising events that allow some form of encounter with the animals.

CBO expects that prohibiting contact with the cats (or keeping the 15-foot gap) would decrease the financial success of these events. Using information provided by conservation groups and industry sources, CBO estimates that the cost of prohibiting or limiting these activities, in the form of foregone income, would be about $80 million each year.

CBO has no data about the physical characteristics of exhibition settings or the ability of licensed exhibitors who wish to continue public exposure to the big cats to meet the new setback and barrier requirements. Thus, CBO cannot estimate the cost to comply with the exemption.

H.R. 263 would prohibit wildlife sanctuaries from transporting and displaying their big cats off site. CBO has no data on the number of sanctuaries that transport and display big cats, or the income stemming from that activity, and thus cannot estimate the cost of this prohibition.

The bill would require all other entities that possess big cats born before enactment to register the animals with USFWS if they want to be exempted from the bill's prohibitions. CBO cannot precisely estimate the cost of this mandate because regulations implementing the bill, including the cost to register the animals, have not been developed and the number of animals that would need to be registered is unknown. But based on information from animal welfare organizations, CBO expects the aggregate costs to be small.

Finally, to be eligible for the exemption, those owners also would be prohibited from breeding or selling their cats. Approximately 200 cubs are traded or sold each year at value of roughly $8,000 per animal, according to industry sources; many of those cubs are born in facilities that would be unable to continue breeding big cats. CBO estimates the cost of the breeding prohibition would be less than $1.6 million per year.

The CBO staff contacts for this estimate are Lilia Ledezma (for federal costs) and Fiona Forrester (for mandates). The estimate was reviewed by H. Samuel Papenfuss, Deputy Director of Budget Analysis.

Mr. CASE. Mr. Speaker, I commend my colleague from Illinois, Mr. QUIGLEY, on his work on this bill, and I urge all Members to vote ''yes.''

Mr. Speaker, I reserve the balance of my time.

Mr. WESTERMAN. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I rise in opposition to H.R. 263. There are a lot of things the gentleman from Hawaii said that I think me, and a lot of other Republicans would agree on about what needs to happen as far as the outcomes of regulating big cats. But the devil is in the details, and that is what I hope to show today, that the details and the process and the procedures that the policy will create with this Democrat bill are not what is best for this policy.

Today's consideration of H.R. 263, the Big Cat Public Safety Act, follows action last month by the Committee on Natural Resources, where this bill passed on a party-line vote after 2 days of lengthy markup.

At a time when gas prices were setting record highs on a near daily basis, the Committee on Natural Resources considered big cat legislation, once again, failing to address the economic and energy crisis facing Americans. At that time, committee Republicans offered several amendments aimed at reminding our majority that we should be focused on reducing energy and food prices, not on exotic pet ownership.

Rather than address the real crisis of the day, Democrats shut down debate on our amendments and forced a vote on final passage of this bill.

So here we are, once again, considering this big cats bill in what looks to be a very crowded legislative week, a week that does not focus on energy prices and inflation, even when gas is still averaging an unbearable and unacceptable $4.50 per gallon.

Versions of this bill have been around since the 112th Congress, begging the question of why, if it is such a good idea, has it not been enacted over the last decade. Two clear reasons are that it would create a new regulatory framework and strip away States' rights.

The bill before us today is aimed at regulating the private ownership of so-called big cats by creating a new and duplicative regulatory authority at the Department of the Interior.

The legislation is a considerable expansion of Federal regulation under the Lacey Act. In 2003, Congress amended the Lacey Act to make it illegal to import, export, buy, sell, transport, receive, or acquire certain live big cats across State lines or the U.S. border. Interstate trade. The bill proposed by my friends across the aisle regulates big cats from the Federal level or an intrastate level, an area where State laws are already in place to handle this.

The Lacey Act historically deals with interstate and international commerce on endangered or injurious wildlife, and the 2003 provisions specifically state that nothing in the act will supersede State laws, but here we are today taking another step to supersede State laws.

This bill would expand the Lacey Act by blatantly overriding State law and enforcing intrastate regulation of big cats.

It would require big cats exhibited at USDA-licensed or USDA-registered facilities be at least 15 feet from the public or behind a permanent barrier, irrespective of State laws. It would end new private ownership of big cats, and it would mandate all big cats be registered with the U.S. Fish and Wildlife Service within 180 days or risk having the Federal Government confiscate their animal and impose criminal fines and penalties.

It would require big cat owners to certify that they will not breed, acquire, or sell any big cats, and would prohibit direct public contact.

All these mandates would supersede State authority and duplicate existing Federal Government regulation.

Not only would this bill expand the Fish and Wildlife Service authorities, but it would overlay the U.S. Department of Agriculture's responsibilities, which already regulates the treatment of big cats in research and exhibition pursuant to the Animal Welfare Act of 1966.

The Animal and Plant Health Inspection Service, or APHIS, at the USDA already has inspectors and law enforcement officers in place that are experts in animal welfare issues. But this bill ignores that existing regulatory framework and would create a new regulatory system that the Congressional Budget Office estimates would lead to $80 million in foregone revenue from current USDA licensed facilities.

□ 1530

The result of this bill would be that USDA-licensed facilities will be regulated by both APHIS under USDA and the Fish and Wildlife Service under the Department of the Interior.

My staff and I have spent considerable time on this issue. One of our first questions was: Why not just work with the House and Senate Agriculture Committees under the jurisdiction of the Animal Welfare Act?

The response we received was an admission that the bill's outside proponents would rather work through the Committee on Natural Resources than the Committee on Agriculture. This is a classic case of venue shopping.

Creating two regulatory frameworks and dual Federal agency management superseding existing State regulation will create confusion, waste taxpayer dollars, and risk failing to adequately regulate these facilities at all.

There is a simple fix to the issues that exist. For that reason, I offered an amendment at our markup that will move the authorities proposed by H.R. 263 into the current USDA framework without superseding State authorities. That commonsense alternative was, unfortunately, rejected on a party-line vote, and unfortunately, it was not allowed to be considered today during the debate in the full House of Representatives. I would dare say that had we adopted that amendment, this bill would be on the suspension calendar.

While I agree that we want to reduce dangerous encounters between the public and big cats, I cannot support this bill because it is an overreaching, duplicative, and precedent-setting proposal that has already served as a blueprint for pending legislation on other species.

We need to work within existing authorities, not create new and duplicative ones. More importantly, we need to focus on the crises facing Americans, including staggering inflation and the high price of energy, not big cats.

Mr. Speaker, I urge my colleagues to reject H.R. 263, and I reserve the balance of my time.

Mr. CASE. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, first of all, to my colleague's initial comments as to energy and the economy, nobody denies the critical importance of those issues, and, yes, of course, we all should be working collectively on those particular issues.

But by that measure, frankly, I would have wished that more of my colleagues on the other side would have voted for the bill immediately prior to this, which is a major issue and initiative to solve our supply chains and to take care of our national defense in terms of our chips. Also, by the measure that he outlines, we should not have addressed other critical issues in our country—for example, gun violence, women's rights, and civil rights. Of course, we should have done that.

The fact of the matter is that this Congress must and can address the many challenges of our country, and, yes, those challenges include, for this particular hour, the danger posed to our public and our law enforcement communities by unregulated big cats.

Mr. Speaker, I yield 5 minutes to the gentleman from Illinois (Mr. QUIGLEY), the author of this legislation.

Mr. QUIGLEY. Mr. Speaker, I indeed rise in strong support of my bill, H.R. 263, the Big Cat Public Safety Act.

In the 116th Congress, we passed this legislation overwhelmingly with a vote of 272–114. So, apparently, there are a significant number of Republicans, at least a quarter of the caucus, that think this is a good idea.

Sadly, the Senate didn't take the bill up then, but since that vote, we have been able to work with our colleagues in the House and Senate to ensure we don't forget this important legislation because law enforcement and our communities deserve better.

Today, I am grateful that this body has had an opportunity to vote on this bill once again, and I am grateful to Mr. GRIJALVA and the House Natural Resources Committee for their continued support and their efforts to protect our neighborhoods from the threat of wild animals being held captive in dangerous conditions.

This legislation is about public safety and the safety of our first responders. Indeed, it is inherently inhumane and dangerous to keep big cats in private residences.

In 2011, as Mr. CASE detailed, more than 50 animals were released from their enclosures into the streets of Zanesville, Ohio: 18 tigers, 3 cougars, and 17 lions. This was just one horrific example of how first responders in our communities are put in danger when big cats are held captive in substandard living conditions by private, unregistered, unprepared owners.

The Big Cat Public Safety Act has been endorsed by the Fraternal Order of Police, the National Sheriffs' Association, the Small and Rural Law Enforcement Executives Association, and numerous State and local law enforcement agencies because 500-pound carnivores pose a serious and very real threat.

There have been over 740 serious safety incidents, including hundreds of maulings and 25 human deaths in the U.S. since 1990.

Lions and tigers do not belong in urban apartments or in cages in suburban backyards. Private citizens simply do not have the resources to care for dangerous animals that were meant to roam hundreds of square miles.

This bill is supported by the Association of Zoos and Aquariums, which represents over 235 accredited zoos and aquariums across the country and abroad, as well as the Humane Society of the United States, and countless other animal welfare organizations because big cats are wild animals that inherently suffer when they are kept as pets in these substandard living conditions.

This bill should be supported by every American because, right now, taxpayers shoulder the cost of monitoring and regulating private owners, and when big cats are rescued from horrific conditions or simply abandoned by overwhelmed owners, they pay for the care and feeding of these cats.

Mr. Speaker, I thank all 258 cosponsors from both sides of the aisle who support this bill, especially my friend, Representative BRIAN FITZPATRICK, who has been a leader on this issue for many years. I urge every Member to stand with law enforcement.

Mr. Speaker, I want to add to what my colleague, Mr. CASE, said about the challenges this country faces. If we were to argue that we should only focus on the top one or two issues in our minds at that time, the hundreds of other issues that this country and our world face would be set aside. Indeed, in this case, we would tell law enforcement: Yes, we know these animals put you at risk, but we want to work on these other priorities.

We can and must be able to do many things and meet all the challenges this country faces. We have that ability, and we are showing it right now. We passed landmark infrastructure legislation, gun safety legislation, and, today, CHIPS. God willing, very soon we will be dealing with infrastructure and the ability to negotiate prescription drug prices.

It is a complicated world, but we can't say in response: Well, we are only going to deal with the top one or two.

We can do better, and we must.

Mr. WESTERMAN. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, we were just wanting a hearing on addressing the energy crisis that is facing our country, and we have yet to have that. We have continued to see development of energy on Federal lands put to a halt by this administration, and we are still waiting for when we are going to have that first hearing to address that issue.

While it is unfortunate that 18 big cats and 49 animals escaped and had to be put down by police officers in Zanesville, Ohio, that was in 2011. It is unclear how this bill would have prevented the situation, for the owner committed suicide after letting all of his animals out of their pens.

Actually, if this bill was based on putting the authority under APHIS, where they already have law enforcement and the infrastructure and the structure in place to enforce the regulations, it probably would have had a better chance of stopping this than the language in the current bill does.

No one wants to have people put in danger through escaped big cats, but enacting duplicative Federal authorities under the Lacey Act and a new agency is totally unnecessary. Any new authorities at the Federal level should rest with APHIS.

Mr. Speaker, I yield 3 minutes to the gentleman from California (Mr. LAMALFA), who serves on the Agriculture Committee and can talk about why this bill should have been under APHIS.

Mr. LAMALFA. Mr. Speaker, I thank my colleague from Arkansas, the ranking member on the Committee on Natural Resources.

Indeed, I have enjoyed time spent on both of the committees we are talking

about here, Agriculture and Natural Resources. But what we are talking about here today is something already covered by current law.

It already prohibits the import, export, transport, sale, receipt, acquisition, or purchase in interstate or foreign commerce of big cats. It allows exceptions for entities that are federally licensed by USDA, under the jurisdiction of the U.S. Department of Agriculture, such as small family-run zoos.

The trade of big cats, and all federally licensed zoological facilities, are regulated under the Animal Welfare Act, as mentioned, which placed USDA's Animal and Plant Health Inspection Service, known as APHIS, in charge of hiring inspectors and law enforcement officers who are experts at animal welfare issues.

This bill ignores existing regulatory framework and creates an additional regulatory system by adding the Department of the Interior's Fish and Wildlife Service into the mix.

So, it creates a duplicative regulatory structure and supersedes State law as well. It would mandate all persons or entities that currently possess big cats to register each animal with the Fish and Wildlife Service within 180 days of enactment of this in order to keep their animals.

Some supporters of this bill have admitted it would indeed create a duplicative Federal process at the Fish and Wildlife Service because proponents would rather, as mentioned, work through the Committee on Natural Resources than through the Committee on Agriculture, which is its current jurisdiction.

Mr. Speaker, I am looking at the calendar. There are somewhere around 40 legislative days left of this session. Getting both committees to have to do this work—obviously, they pushed it through already—but let's take that to an agency level. Now, whether APHIS can do the job, do we want to add Fish and Wildlife to that?

I have issues in my own district in California, where Fish and Wildlife needs to do more work on analyzing what the effects of their mandates are on water in my State and my neighboring State. They are entering into even more responsibility that is unneeded.

My colleague's amendment would have perfectly dovetailed into what we are talking about here and kept it in the jurisdiction where it needs to be instead of creating more bureaucracy and more effort by already overstretched government agencies that don't have the personnel to cover some of the responsibilities they already have.

Let's look at what we are looking at priority-wise.

Yes, we are supposed to be able to walk and chew gum and do other things around here, but why are we creating double effort from already stretched agencies still sometimes sitting in COVID caves, not getting the job done? Adding more, that is unnecessary.

It would have been very simple to have a clean bill here and, I think, some bipartisan effort, but it has all blown up on us here with having to have a duplicative effort.

I think, unfortunately, what good could have come from H.R. 263 is lost in a set of priorities that are just trying to make it easier to increase the bureaucracy. That is pretty sad because we want to see a good outcome here for these animals and for the people who enjoy them and would like to continue to enjoy them.

Mr. CASE. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, first of all, to the comments of my colleague and friend from California, he says that this situation of private possession of big cats is already covered by current law. That is incorrect. They are not regulated under Federal law. The private possession is not regulated, nor is the private utilization and exploitation covered by current law.

He complains that this would set up a duplicative environment. Neither USDA nor the Fish and Wildlife Service is regulating in this area right now.

So, it is a question, if one accepts the premise of which way you go in terms of who is best to regulate it, it is not going to duplicate anything that either of them does, but it will complement more accurately what the Fish and Wildlife Service is responsible for, which is, number one, enforcement of the Lacey Act, which this is a natural extension of, in which we focus on the trade and endangered species and the impact of that trade not only on the public safety but on the survival of those species around the world.

□ 1545

Number one, the Fish and Wildlife Service does, in fact, deal with endangered species. In fact, it is our primary agency for doing so. So this is a judgment that the Fish and Wildlife Service is the appropriate agency as opposed to the USDA which has a different direction that it takes.

Mr. Speaker, I yield 3 minutes to the gentleman from Arizona (Mr. GRIJALVA), who is the chair of the full committee.

Mr. GRIJALVA. Mr. Speaker, I thank Representative CASE for the time.

Mr. Speaker, I rise in support of H.R. 263, the Big Cat Public Safety Act. The bill is a long-overdue fix to a public safety and animal welfare problem that has been with us for too long.

I hear from my colleagues on the other side of the aisle, my Republican friends, that not only is it duplicative, but it is unnecessary and a waste of time. Unfortunately, my colleagues have undertaken a potted plant strategy in terms of how they do business in the House: just water us, we are just going to sit there, and we are not going to do nothing. They are using legislation like this one to sustain a blame game more political than substantive regarding decisions being made by the administration or the majority in this House. I understand that. But it is a selective blame game.

We don't talk about the threat to our democracy, we don't talk about the criminalization of a woman's right to make health decisions, and we don't talk about the creeping authoritarianism that we see in our country. We don't talk about those things. I think that if we are going to have a discussion and assess blame, that the discussion is open on all sides.

So there are more big cats in private ownership and in captivity than in the wild. Private ownership of tigers, lions, leopards, and other big cats does absolutely nothing to help these endangered and threatened species recover in the wild.

To make matters worse, it poses a threat to first responders and the public who often don't even know they are in a community until an emergency happens.

State laws banning or regulating big cats vary greatly, and enforcement varies greatly. There is no Federal policy regarding the private possession of big cats, many of which are bred for cub petting and photo opportunities and then sold into private possession once they are too old for photo ops.

Contrary to what we have heard today, the USDA does not have jurisdiction over private ownership of big cats. Instead, the Fish and Wildlife Service is tasked with banning the breeding and possession of big cats under the Lacey Act, which is a natural extension of the work the Fish and Wildlife Service already does to regulate the breeding of ESA-listed species.

So it is germane to our committee, it is where it should be, and the Fish and Wildlife Service is the appropriate agency with both the experiences and the linkages to do this.

Mr. Speaker, I urge support of the legislation.

Mr. WESTERMAN. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I appreciate my friend, the chairman of the Natural Resources Committee, for making a point that we have made, and that is that there are bigger issues to talk about.

Unfortunately, the issues that my friend mentioned are not under the jurisdiction of the House Natural Resources Committee. But energy production on Federal lands and Federal waters are big issues that are in the jurisdiction of our committee. So is mining all the critical resources, the elements and minerals, that are going to be needed to electrify the economy.

Regarding the big CHIPS bill that was just passed on the floor here, a lot of the ingredients that go into those chips actually come from China. One hundred percent of them come from China. So there are bigger issues that we need to talk about.

Really, this bill shouldn't be taking all of this time, and it wouldn't have taken all of this time if the majority had just worked with us a little bit.

If they had done the commonsense thing and had put the jurisdiction of regulating these cats under APHIS where it belongs, as I said before, we would probably have this bill on the suspension calendar and we would all be talking about what a good piece of legislation it is and how it will benefit the country.

But when we take a simple issue and create a new Federal bureaucracy and give authorities to an agency, that I don't even think wants these authorities much less needs these authorities, is something we have to make an issue of.

Mr. Speaker, I yield 3 minutes to the gentleman from Georgia (Mr. HICE).

Mr. HICE of Georgia. Mr. Speaker, I appreciate the great leadership of the ranking member from Arkansas. I appreciate his yielding some time to me.

Mr. Speaker, I certainly rise in opposition to the Big Cat Public Safety Act.

Let it be known that I also rise in opposition to the complete lack of decorum demonstrated by the majority in today's vote on the CHIPS bill. This Chamber is supposed to be a deliberative body governed by rules and norms agreed to by all the Members. The majority has made a mockery of those rules and norms today.

The complete disregard for the minority is what they showed today, and that is upsetting and disturbing. It is certainly no way to run the House, Mr. Speaker.

Turning to this legislation at hand, it seems as if the Democrats are prioritizing literally pet projects of a reality TV star instead of considering legislation that would benefit the American people during this time of economic crisis.

Natural Resources Committee Democrats have spent their time marking up legislation like this instead of working on bills that would lower the cost of gas for millions of Americans.

As the ranking member has referenced several times, our constituents sent us here to represent them and to work together to solve the issues that they are facing and that our Nation is facing. Right now, they are facing things like the cost of gasoline and energy production, and we are doing nothing about that in the Natural Resources Committee.

Legislation like this does not reflect the interests or the concerns of the American people.

We have Americans literally suffering right now economically, and we are debating big cats? Really?

Of all the things that are important, we are in here talking about big cats.

We have an administration right now gaslighting the American people by trying to change the definition of a recession which we are experiencing.

It is time for us to work on legislation that actually helps the American people.

Because of the actions of President Biden and the Democrats, Americans are suffering from the worst inflation in over four decades and are now facing the beginning of a recession. It is time for Congress to work on critical legislation and stop wasteful and untimely bills like this.

Mr. Speaker, I urge my colleagues to oppose H.R. 263, the Big Cat Public Safety Act. Mr. Speaker, you have got to be kidding me. This is ridiculous.

Mr. CASE. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, in response to my friend and colleague from Georgia, I simply want to read a list of some of the endorsers of this particular legislation.

These are all members of law enforcement: The National Sheriffs' Association, the Fraternal Order of Police, the Sheriffs' Association of Texas, the Maine Sheriffs' Association, the West Virginia Sheriffs' Association, the Arkansas Sheriffs' Association, the Kansas Sheriffs' Association, the Louisiana Sheriffs' Association, the Buckeye State Sheriffs' Association of Ohio, the Vermont Sheriffs' Association, and the Iowa State Sheriffs' Association.

I have gotten to four lines of a whole bunch of other endorsements from law enforcement.

Clearly, they regard this as one of the areas that we should address for this country out of the many challenges that we face. So I do think it is appropriate that we devote just a little bit of time to what is concerning them.

Mr. Speaker, I yield 2 minutes to the gentlewoman from Florida (Ms. CASTOR).

Ms. CASTOR of Florida. Mr. Speaker, I thank the gentleman for yielding.

Mr. Speaker, I rise today in strong support of H.R. 263, the Big Cat Public Safety Act, as a proud cosponsor of this legislation for many years.

Big cats such as lions, tigers, panthers, and others deserve to live in the wild or in a safe and secure refuge like Big Cat Rescue back home in Tampa.

But too often these beautiful creatures are privately owned and exploited for profit in the exotic pet trade where they are owned by unfit individuals and kept in awful conditions. That is why we must pass the Big Cat Public Safety Act. It would be a catastrophe if we did not pass it.

Big cats are wild animals. They do not belong in backyards and garages and should not be in regular contact with people unsuited to take care of them. It is dangerous as well. We have seen numerous law enforcement and emergency calls due to the irresponsible private ownership of big cats fueled by those who are making money off of their suffering.

So I am proud to have advocated for this legislation with many of the cool cats and kittens, volunteers, and supporters of Big Cat Rescue in Tampa.

I thank Representative QUIGLEY and the Natural Resources Committee Chair GRIJALVA for moving to protect big cats from exploitation.

Mr. Speaker, I encourage all of my colleagues to do the same with a big ''yes'' vote on the Big Cat Public Safety Act.

Mr. WESTERMAN. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I find this a bit amusing that the proponents of this bill are rolling out all the law enforcement agencies that are supportive of the bill.

And why wouldn't they be?

Why would they care which Federal agency deals with it?

They just don't want to have to deal with the problem themselves. So, sure, they support this bill because it addresses a problem that they are having to deal with now. But I doubt they have looked past the point that it is creating a new Federal agency that doesn't affect their budgets, it is creating a new Federal agency that makes things duplicative, it doesn't affect their operations, and I am quite certain, had we put the amendment in to put this under APHIS, we would still have all those law enforcement agencies supporting this bill. So, Mr. Speaker, you have to take that for what it is worth.

H.R. 263 is a template that is already being used to regulate other animals. This is the weaponization of the Lacey Act. USDA does have jurisdiction over privately owned cats. The USDA-licensed facilities are not government-owned. So every time the logic trail that you go down about why should this regulation be under U.S. Fish and Wildlife or under the Department of the Interior, it comes back to there is no logic. It is just that somebody had an agenda to put it under an agency that is not equipped right now and doesn't have the personnel right now to enforce it.

So it is creating a new authorization that, I believe, is going to have happen to it what happens to many well-intended laws. They get weaponized to go after something that they originally weren't set up to go after.

Mr. Speaker, I yield 3 minutes to the gentleman from Idaho (Mr. FULCHER).

Mr. FULCHER. Mr. Speaker, I thank the ranking member of the Committee on Natural Resources from the State of Arkansas.

Mr. Speaker, here we are, yet again, discussing the most important issue of our day: cats. Not just any cats, but big cats.

My constituents have been hammering my office about this issue. Thankfully, my Democrat colleagues have been listening.

Of course, I jest.

I shouldn't be allowing this issue to be taking my time, and neither should you, Mr. Speaker.

My constituents are not talking about big cats. There are some misplaced priorities here. They are talking about skyrocketing food and energy prices and the never-ending deficit spending from this Democratic Congress. That is what is going on in my district.

Here is another big concern for Idaho and across the West: wildfire.

Mr. Speaker, 5.6 million acres—that is million with an M—have burned just

this year to date. For those of you who don't live in the West or are not familiar with it, wildfire is what you get when you choke off access to your forests and regulate away the ability to properly manage your land. That is what the current leadership is doing. Yet, here we are talking about big cats.

Do I dare mention the southern border crisis?

There were 207,416 apprehensions last month alone with who knows how many got-aways, how much sex trafficking, or how much illegal narcotics. But don't worry. Congress is working on big cats.

Mr. Speaker, we have had a lot of things on the agenda here for the last few months, and there are many things that are burning in the minds of our constituents and the people whom we serve.

The people whom we serve deserve better. The people whom we serve are not talking about the things that we are. But yet here we are working through things that simply do not matter in the scheme of everything else going on right now.

Mr. CASE. Mr. Speaker, first of all, to the ranking member's comments, this is an informed judgment about which of two existing Federal agencies is more appropriate to manage and administer what, I believe, if I hear the ranking member correctly, is our common goal, our common goal of ending the status quo as to the private possession and exploitation of big cats.

□ 1600

So this is a judgment that we disagree on. I have articulated our reasons why Fish and Wildlife is the better one. He has his view of USDA. It is a policy call for us to make. But we are not disagreeing with the overall goal, I don't believe.

His amendment, by the way, not only—his proposed amendment not only proposed to put it in USDA, but also to essentially preempt the preemption of Federal law. So, in other words, there is a jumble of State laws out there, ranging from good, solid State laws, to no State laws; and that creates a real complicated and very confusing puzzle for all kinds of people, again, including law enforcement.

So you cannot apply a Federal standard across the country with one sentence, and then, in the next sentence say, oh, by the way, any State can do anything it wants. That doesn't make any sense at all.

So either we go in with the Federal standard, or we don't go there at all. Our judgment under this law is that we need to go there with a Federal standard.

As to my colleague's comments on priorities, I would, again, refer to my earlier comments. Those are critical priorities that we are all trying to address.

Certainly, I haven't checked the roll call vote on the bill that we just passed, CHIPS, but I hope, if they are truly interested and focused on inflation, on energy, on self-sufficiency in our country, then I would hope that I saw a ''yes'' vote for them on one of the most major pieces of legislation that we will be passing and the President will be signing shortly to end our supply chain reliance on places like China.

My colleague also knows that we have coming up a major wildfire bill to address that challenge that we all agree is a critical challenge for our country, and I certainly hope that he will view that bill favorably as well, if, in fact, we all have that shared goal.

Mr. Speaker, I reserve the balance of my time.

Mr. WESTERMAN. Mr. Speaker, I yield 2 minutes to the gentleman from Oregon (Mr. BENTZ).

Mr. BENTZ. Mr. Speaker, today we are considering the Big Cat Public Safety Act. I have some concerns.

First, this is not what most Americans are concerned about right now. People outside of the Beltway are worried about the cost of living. Food prices are way up. Gas prices are nearly double what they were last year. Crime is skyrocketing. Drought and wildfire are ravaging my State of Oregon, and the Biden administration denies responsibility; and, worse, has no plan.

Americans aren't fooled. They know that the priority number one should be lowering the cost of living.

Second, I have concerns about the Big Cat bill itself. This is a State issue, not a Federal issue. Most States already have restrictions on keeping big cats as pets, if not outright bans. In fact, 38 States have already addressed the issue.

For example, my home State of Oregon has already banned private possession of big cats. Other States can legislate on this issue as they see fit. It is not appropriate for Congress to intervene, and this would certainly be an improper expansion of the Lacey Act.

We should, instead, focus upon the most important issues facing our Nation: inflation, the price of fuel, wildfire, and drought.

Mr. CASE. Mr. Speaker, I have no further requests for time. I am prepared to close. I reserve the balance of my time.

Mr. WESTERMAN. Mr. Speaker, I yield myself such time as I may consume.

I just want to point out that it has been argued that we have got a hodgepodge of laws across the State, or across the country, and that is what makes America great is that we can have different laws that are tailored to different regions of the country.

But there are two Federal laws regulating exotic animals, and they are already on the books. The Captive Wildlife Society Act governs interstate commerce of big cats, and the Animal Welfare Act governs big cat enterprises.

H.R. 263 would overlay existing exotic animal laws, further complicating Federal law and explicitly superseding State laws. If a new Federal law is necessary—I will say it again—the Animal and Plant Health Inspection Service, or APHIS, within USDA, has the expertise and knowledge to carry out these responsibilities.

Mr. Speaker, I reserve the balance of my time.

Mr. CASE. Mr. Speaker, I continue to reserve the balance of my time.

Mr. WESTERMAN. Mr. Speaker, I yield myself the balance of my time.

Again, this is a simple issue. It is an issue that we shouldn't even be having to debate like this. It should be on suspension; but it just shows you how there has been an unwillingness to work on commonsense solutions to a simple problem.

It took up 2 days of committee debate when we could have been talking about energy; when we could have been talking about high inflation prices; when we could have been talking about a water crisis in the West, the drought.

Mr. Speaker, there are 600,000 acres of land laying fallow in California this summer because they don't have water. That has not even come up for one debate in our Natural Resources Committee.

The gentleman talked about the crisis at the southern border. Forty percent of the southern border is public lands, which falls under the jurisdiction of our committee. We have not had a single discussion about it.

We spent 2 days talking about big cats. We are spending valuable floor time before we split for the August break debating big cats. And we are debating an issue that could have been resolved simply.

I hope that going forward, I hope we can work on these issues in a way that is better for the country; that is not trying to create some new bureaucracy that can be used to achieve other goals. And I hope that my colleagues will vote against H.R. 263.

If it somehow gets out of the House, I hope the Senate will not pass it and maybe, in the next Congress, we can come back with commonsense legislation that addresses this issue; puts the jurisdictions under the right authorities; and we can, once and for all, move on from big cats, and we can start talking about real issues that matter to our constituents and to the hardworking taxpayers across the country.

Mr. Speaker, I yield back the balance of my time.

Mr. CASE. Mr. Speaker, I yield myself the balance of my time.

First of all, I do want to thank my colleague, the ranking member of the full committee. He is a very good ranking member and a very good person to work with on many challenges on our Natural Resources Committee.

I appreciate his comments at the outset of this debate which, I believe, reflected an agreement as to the problem and as to the goal. We may be sitting here debating some of the implementation, but in this Congress, if we can

agree on the problem and the goal, that is a step forward, and I appreciate at least that we have that common agreement.

Yes, we do have disagreements in terms of the exact way to approach this; specifically, which Federal agency should actually have the con on this. We have outlined our arguments here and elsewhere, and we have a disagreement, and that is part of the democratic process. We believe we have the better view of that, given the Fish and Wildlife Service's focus.

I do want to take issue with his comment that it took 2 days to debate this bill in the Natural Resources Committee. Actually, the debate having to do with this particular issue in the Natural Resources Committee was far less than 2 days. In fact, I didn't add it up. It probably amounted to 2 hours of those 2 days. The rest of it was really debating other issues in the context of this bill.

So this is not a particularly complicated problem to grasp from the law enforcement, from public safety, from an animal welfare perspective, and it is not a particularly difficult problem to identify very concise options and to make a decision on those. Those things were vetted in the Natural Resources Committee and are being vetted on the floor here. But to say that this took 2 days, in all due respect, is not accurate.

I do want to comment briefly on the comment having to do with State laws are already handling this. Yes, of course, this is always an issue that we have in determining whether, in the context of our work here, we should have the Federal Government apply standards or leave it to the States.

In this particular case, we have the worst of all worlds. We have differing State laws in terms of the private ownership and exploitation of big cats; and we also have both Federal and State laws that both preempt and leave it to the States.

But I would submit that the Captive Wildlife Safety Act, which is where we started on this almost 20 years ago, a Federal law that said that we were going to, as a country, state that you can no longer import these big cats from their homes; thus, decimating their populations where they came from, and encouraging a trade that has led them to the brink of extinction in most cases. We said that that is a Federal matter, and that is what we are trying to follow.

This is only an extension of that particular act. So I think it is a particularly worthwhile area for us to develop Federal standards and end a lot of doubt among the States and among the Federal Government and the States collectively and get on with the goal of protecting our people, protecting our animals, and protecting our law enforcement.

I urge adoption of this bill, and I yield back the balance of my time.

The SPEAKER pro tempore. All time for debate has expired.

The Chair understands that the amendment printed in part A of House Report 117–444 will not be offered.

The question is on the engrossment and third reading of the bill.

The bill was ordered to be engrossed and read a third time, and was read the third time.

The SPEAKER pro tempore. The question is on passage of the bill.

The question was taken; and the Speaker pro tempore announced that the ayes appeared to have it.

Mr. WESTERMAN. Mr. Speaker, on that I demand the yeas and nays.

The yeas and nays were ordered.

The SPEAKER pro tempore. Pursuant to clause 8 of rule XX, further proceedings on this question will be postponed.

MESSAGE FROM THE SENATE

A message from the Senate by Ms. Byrd, one of its clerks, announced that the Senate has passed without amendment bills of the House of the following titles:

H.R. 1057. An act to require the Secretary of the Treasury to mint coins in commemoration of the National World War II Memorial in Washington, DC, and for other purposes.

H.R. 1842. An act to require the Secretary of the Treasury to mint commemorative coins in recognition of the Bicentennial of Harriet Tubman's birth.

The message also announced that the Senate has passed with an amendment in which the concurrence of the House is requested, a bill of the House of the following title:

H.R. 7776. An act to provide for improvements to the rivers and harbors of the United States, to provide for the conservation and development of water and related resources, and for other purposes.

The message also announced that the Senate has passed bills of the following titles in which the concurrence of the House is requested:

S. 3742. An act to establish a pilot grant program to improve recycling accessibility, and for other purposes.

S. 3743. An act to require the Administrator of the Environmental Protection Agency to carry out certain activities to improve recycling and composting programs in the United States, and for other purposes.

S. 4359. An act to designate the regional office of the Department of Veterans Affairs in metropolitan Atlanta as the ''Senator Johnny Isakson Department of Veterans Affairs Atlanta Regional Office'', and for other purposes.

ANNOUNCEMENT BY THE SPEAKER PRO TEMPORE

The SPEAKER pro tempore. Pursuant to clause 8 of rule XX, the Chair will postpone further proceedings today on motions to suspend the rules on which the yeas and nays are ordered.

The House will resume proceedings on postponed questions at a later time.

SAFEGUARDING TREATMENT FOR THE RESTORATION OF ECOSYSTEMS FROM ABANDONED MINES ACT

Mr. LOWENTHAL. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 7283) to amend the Infrastructure Investment and Jobs Act to make certain activities eligible for grants from the Abandoned Mine Reclamation Fund, and for other purposes, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 7283

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Safeguarding Treatment for the Restoration of Ecosystems from Abandoned Mines Act'' or the ''STREAM Act''.

SEC. 2. ACTIVITIES THAT ARE ELIGIBLE FOR GRANTS FROM THE ABANDONED MINE RECLAMATION FUND.

Section 40701(c) of the Infrastructure Investment and Jobs Act (30 U.S.C. 1231a(c)) is amended—

(1) by striking ''Grants under'' and inserting the following:

''(1) IN GENERAL.—Except as provided in paragraph (2), grants under''; and

(2) by adding at the end the following:

''(2) ACID MINE DRAINAGE ABATEMENT AND TREATMENT.—

''(A) IN GENERAL.—Not more than 30 percent of the total amount of a grant made annually under subsection (b)(1) may be retained by the recipient of the grant, if those amounts are deposited into an acid mine drainage abatement and treatment fund established under State law, from which amounts (together with all interest earned on the amounts) are expended by the State for the abatement of the causes and the treatment of the effects of acid mine drainage resulting from coal mining practices, including for the costs of building, operating, maintaining, and rehabilitating acid mine drainage treatment systems.

''(B) REPORTING REQUIREMENTS.—Each recipient of a grant under subsection (b)(1) that deposits grant amounts into an acid mine drainage abatement and treatment fund under subparagraph (A) shall—

''(i) offer amendments to the inventory maintained under section 403(c) of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1233(c)) to reflect the use of the amounts for acid mine drainage abatement and treatment; and

''(ii) include in the annual grant report of the recipient information on the status and balance of amounts in the acid mine drainage abatement and treatment fund.

''(C) TERM.—Amounts retained under subparagraph (A) shall not be subject to—

''(i) subsection (d)(4)(B); or

''(ii) any other limitation on the length of the term of an annual grant under subsection (b)(1).''.

The SPEAKER pro tempore. Pursuant to the rule, the gentleman from California (Mr. LOWENTHAL) and the gentleman from Arkansas (Mr. WESTERMAN) each will control 20 minutes.

The Chair recognizes the gentleman from California.

GENERAL LEAVE

Mr. LOWENTHAL. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days in

which to revise and extend their remarks and include extraneous material on the measure under consideration.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from California?

There was no objection.

Mr. LOWENTHAL. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I rise in strong support of H.R. 7283, the Safeguarding Treatment for the Restoration of Ecosystems from Abandoned Mines Act, or the STREAM Act, introduced by our colleague, Representative CARTWRIGHT of Pennsylvania.

The STREAM Act makes a technical correction to existing Federal law so that States and Tribes can use a portion of the $11.3 billion that Congress has already appropriated for abandoned coal mine cleanup to restore streams that are polluted by acid mine drainage.

Acid mine drainage is heavily polluted water that flows out of abandoned coal mines into streams, making them toxic to all wildlife and often turning them a bright and unnatural orange.

Acid mine drainage renders streams biologically dead. They become unusable, undrinkable, unfishable, and unswimmable. It also severely limits a region's potential economic growth.

□ 1615

Thankfully, we know how to clean up this type of mining pollution, and we know that doing so will bring enormous benefits to impacted communities.

Investments made by existing Federal law for cleaning up abandoned coal mines are expected to create over 4,000 jobs a year over the next 15 years. That is 60,000 new, good-paying jobs in communities left behind by the coal industry.

Cleaning up acid mine drainage also restores natural areas and brings back wildlife. Under the existing Abandoned Mine Land Program run by the Department of the Interior, eligible States and Tribes can set aside 30 percent of their annual funding allocations to cover the long-term costs of operating acid mine drainage treatment facilities.

Unfortunately, newer Federal law passed in this Congress does not currently give States and Tribes the same authority for the $11.3 billion in supplemental funds.

The STREAM Act corrects this situation, giving States and Tribes the same flexibility to treat this devastating issue with legislation that has been passed in this Congress that they have had under the standard program for years.

I want to emphasize that this legislation does not—I repeat, does not—affect funding levels for any State. It simply changes the way that States may choose to use funds, depending on their individual needs when it comes to acid mine drainage.

The STREAM Act has strong bipartisan support. This legislation passed out of committee with strong bipartisan support and is endorsed by Governors, environmental groups, and the Interstate Mining Compact Commission.

I include in the RECORD some testimony in support of the STREAM Act from the Interstate Mining Compact Commission and letters of support from Governor Mike DeWine of Ohio, Governor Jim Justice of West Virginia, the Maryland Department of the Environment, the Illinois Department of Natural Resources, and Trout Unlimited.

OFFICE OF THE GOVERNOR,
Columbus, OH, April 25, 2022.

HON. RAÚL M. GRIJALVA,
Chair, Natural Resources Committee,
House of Representatives, Washington, DC.
HON. BRUCE WESTERMAN,
Ranking Member, House Natural Resources Committee, House of Representatives, Washington DC.

DEAR CHAIRMAN GRIJALVA AND RANKING MEMBER WESTERMAN: I am writing to ask for your support of H.R. 7283, the Safeguarding Treatment for the Restoration of Ecosystems from Abandoned Mines Act (STREAMS), and its companion bill, S. 3957. These bills clarify that states with acid mine drainage (AMD) set-aside programs can deposit a portion of the Infrastructure Investment and Jobs Act (IIJA) Abandoned Mine Land (AML) grant funds into AMD set-aside accounts. The authority to do so will improve our nation's water quality.

Ohio has a rich history of mining that began more than 200 years ago when the state was still a territory. It is, in part, thanks to Ohio's miners and coal resources that the industrial revolution grew. During the 19th and 20th Centuries, more than 3.6 billion tons of coal were extracted from Ohio, and, while mining has been an integral part of Ohio's past economic prosperity, the after-effects of coal production still endure.

Although laws and regulations on proper mining practices and reclamation exist today, that wasn't the case for the first 100 years of coal mining. Prior to the enactment of our nation's first mining laws in 1977, mines were often left abandoned and unreclaimed as mining companies moved on to the next site. Thousands of abandoned underground mines exist in Ohio and pose significant geologic hazards, as the acids that discharge from mined rock leech into our streams and other waterways.

Thankfully, funding mechanisms have been put in place to confront this challenge. The IIJA includes $11.3 billion in new funding for AML reclamation. These funds will significantly increase states' ability to address legacy safety and environmental hazards of coal mining.

An important aspect of restoring abandoned mine lands is remediating acid mine drainage (AMD), which is caused by surface water flowing over or through mined rock, making the water highly acidic. AMD is addressed by building water treatment systems to neutralize acidic water and remove dissolved metals that harm water quality in streams and rivers.

However, addressing AMD is different than the safety hazards caused by AML, because a safety hazard can be effectively eliminated through a one-time construction project, but AMD requires a treatment system to be operated, maintained, and rehabilitated in perpetuity for it to remain effective. Accordingly, each AMD treatment system that a state builds represents a long-term liability that must be funded.

Ohio currently operates and maintains 33 treatment systems with plans to establish more, and unfortunately, the IIJA does not provide the ability to set aside a portion of the funds made available for ongoing AMD remediation. Without this authority, it will be extremely difficult to responsibly build the treatment systems necessary to make significant improvements in water quality that has been harmed by abandoned coal mines.

H.R. 7283 and S. 3957 would clarify that states with approved AMD set-aside programs can deposit up to 30% of annual IIJA grant funds into the AMD set-aside account. This legislation is imperative to Ohio, along with 10 other states in the Appalachian and the Midwest regions who are committed to addressing the legacy safety and environmental hazards of coal mining.

As the 2021 Chair of the Interstate Mining Compact Commission and former co-chair of the Appalachian Regional Commission, I can attest to the importance of this legislation in addressing water quality issues resulting from abandoned mines in Ohio. The legislation provides the flexibility and long-term financial stability necessary to plan, design, build, operate and maintain critical acid mine drainage treatment systems.

Again, I ask for your support of this important legislation. Thank you for your attention to this issue.

Very respectfully yours,

MIKE DEWINE,
Governor.

OFFICE OF THE GOVERNOR,
Charleston, WV, May 31, 2022.

Hon. JOE MANCHIN III,
U.S. Senate,
Washington, DC.
Hon. SHELLEY MOORE CAPITO,
U.S. Senate,
Washington, DC.
Hon. DAVID MCKINLEY,
House of Representatives,
Washington, DC.
Hon. ALEX MOONEY,
House of Representatives,
Washington, DC.
Hon. CAROL MILLER,
House of Representatives,
Washington, DC.

DEAR MEMBERS OF CONGRESS: I am writing to you today on a matter that urgently needs your attention. As many of you know, the recently adopted Bipartisan Infrastructure Law transfers $11.3 billion from the federal treasury to the Abandoned Mine Lands (AML) trust fund. State AML programs use this fund to address the adverse impacts from the centuries of unregulated coal mining that took place prior to the adoption of the federal Surface Mining Control and Reclamation Act in 1977. This additional money will be monumental to West Virginia's AML program, and AML programs across the country, as we work together to eliminate safety and environmental hazards caused by abandoned mines.

While we applaud the passage of the historic Infrastructure Law, we want to call on our congressional leaders to pass the recently introduced legislation that will allow states to move a portion of the treasury funds into their Acid Mine Drainage (AMD) Set Aside funds. This authority will provide West Virginia and other states with even more resources to address the impacts from mining's early years.

A key component in addressing AML sites in West Virginia and the surrounding region has been building water treatment systems to remediate AMD. Treating AMD presents a bigger challenge than addressing safety hazards, which can often be eliminated through

one-time construction projects. Once an AMD treatment system is built, additional funding is needed for operations and maintenance, so it remains effective. The expenses of this work go on in perpetuity.

Historically, state AML programs have been funded through grants from the AML trust fund and fees collected from coal production. The federal AML program allows states to set aside 30 percent of its grant funding into an interest-bearing account to cover the long-term cost of treating AMD. Although the Infrastructure Law authorizes continuation of collection of AML fees on coal production and the authority to set aside 30 percent of grant funds, it does not allow states to set aside a portion of the treasury funds. The ability to use these funds to cover the long-term costs of treating AMD will be vital to keeping that burden off future generations.

Much like traditional AML projects, treating AMD benefits both the environment and the economy. Building and operating AMD treatment systems helps facilitate the creation of permanent jobs while cleaning up our rivers and streams—a true win-win for all West Virginians.

Over the past four years, people from across the country and all over the world have finally discovered what a great place West Virginia is to live, work, and play. They want to kayak and fish in our pristine waters and hike in our beautiful mountains.

Passing this legislation will ensure that West Virginia's resources will be protected and enjoyed by all citizens for years to come.

Sincerely,

JIM JUSTICE,
Governor.

MARYLAND DEPARTMENT OF THE ENVIRONMENT,
Baltimore, MD, May 10, 2022.

Hon. CHRIS VAN HOLLEN,
U.S. Senate,
Washington, DC.

DEAR SENATOR VAN HOLLEN: I am writing to ask for your support of S. 3957, the Safeguarding Treatment for the Restoration of Ecosystems from Abandoned Mines Act (STREAMS), and its companion bill, H.R. 7283. These bills clarify that states with acid mine drainage (AMD) set-aside programs, like Maryland, can deposit a portion of the Infrastructure Investment and Jobs Act (IIJA), Abandoned Mine Land (AML) grant funds into state's AMD set-aside accounts. This authority will improve our nation's water quality by providing funding for AMD treatment projects as well as the long-term operation and maintenance of treatment systems.

Western Maryland has a rich history of coal mining that began more than 250 years ago and helped fuel the industrial revolution. Hundreds of millions of tons of coal were mined prior to the passage of state and federal laws requiring land and water reclamation. The Surface Mining Control and Reclamation Act (SMCRA or the Act) of 1977 instituted national mining and reclamation standards that have reduced environmental impacts from modern coal mining. SMCRA also created the Abandoned Mine Reclamation Fund, by taxing coal production, to address the legacy of health, safety, and environmental hazards that existed prior to passage of the Act.

The IIJA has significantly increased funding available for AML programs by depositing $11.3 billion into the Abandoned Mine Reclamation Fund to address the myriad of legacy health, safety, and environmental hazards of coal mining.

An important aspect to restoring abandoned mines is remediating AMD, which is caused by groundwater and surface water flowing through abandoned deep mines and surface mines resulting in very acidic water with high concentrations of dissolved metals. Maryland currently has 60 AMD treatment systems that have improved or restored over 100 miles of stream, but hundreds of miles of streams remain degraded. Treating AMD is costly and requires long-term funding for operation and maintenance of the treatment systems. Without continued funding for operation and maintenance, the improvements will quickly be lost as the streams revert to their pretreatment status.

S. 3957 and H.R. 7283 would clarify that states with approved AMD set-aside programs can deposit up to 30% of annual IIJA grant funds into the AMD set-aside account. This legislation is imperative to Maryland, along with 10 other states in the Appalachian and the Midwest regions who are committed to addressing the legacy of coal mining. The legislation provides the flexibility and long-term financial stability necessary to plan, design, build, operate, and maintain critical acid mine drainage treatment systems.

Thank you for your attention to this important issue of improving water quality in Maryland and ask for your support of this legislation.

Sincerely,

TYLER ABBOTT,
Chief of Staff.

ILLINOIS DEPARTMENT OF NATURAL RESOURCES,
Springfield, Illinois, April 21, 2022.

Hon. RICHARD DURBIN,
Washington, DC.

DEAR SENATOR DURBIN: The Abandoned Mine Land (AML) program for the state of Illinois is under the purview of the Illinois Department of Natural Resources. I am writing to express our continuing strong support for the AML program under the Surface Mining Control and Reclamation Act of 1977 (SMCRA).

As you may know, Section 40701 of the recently adopted Bipartisan Infrastructure Law (BIL) transfers funds to the Illinois Abandoned Mine Lands (AML) Division for use in addressing the adverse impacts of coal mining that preceeded SMCRA. An important aspect of the work is the remediation of acid mine drainage (AMD). Treatment of AMD requires the construction, operation, maintenance and rehabilitation of a treatment system to remain effective, resulting in a long-term liability. The historic fee-based AML program allows up to 30 percent of its annual AML grant in an interest-bearing account to cover the long-term costs of AMD. However, the BIL does not confer parallel authority. Without this authority, the amount available for long-term liabilities will dwindle, thereby limiting AMD treatment.

Therefore, I am requesting your support for S. 3957, to amend the Infrastructure Investment and Jobs Act to make certain activities eligible for grants from the Abandoned Mine Reclamation Fund, which was introduced by Senator Bob Casey and Senator Mike Braun to allow not more than 30 percent of the total amount of the BIL grant to be deposited into an AMD fund.

I have attached a summary about the importance of the AMD Set Aside Authority and S. 3957, STREAM Act. Should you have any questions or require additional information about the valuable work our state has undertaken, please contact Lance Range, Acting Manager of the Division of AML.

Thank you for your consideration of this request to protect the physical, environmental, and economic health of the people of Illinois.

Sincerely,

COLLEEN CALLAHAN,
Director.

TROUT UNLIMITED,
Arlington, VA, June 8, 2022.

Re Trout Unlimited supports H.R. 7283, Safeguarding Treatment for the Restoration of Ecosystems from Abandoned Mines Act (the STREAM Act).

Hon. ALAN LOWENTHAL,
Chair, House Natural Resources Committee, Environment and Mineral Resources Subcommittee.

Hon. PETE STAUBER,
Ranking Member, House Natural Resources Committee, Environment and Mineral Resources Subcommittee.

CHAIR LOWENTHAL, RANKING MEMBER STAUBER AND MEMBERS OF THE SUBCOMMITTEE: On behalf of our 300,000 members and supporters nationwide, Trout Unlimited (TU) writes in support of the bipartisan Safeguarding Treatment for the Restoration of Ecosystems from Abandoned Mines Act (STREAM Act) to finance long term cleanup of abandoned coal mines. This bill will help finance and sustain the outstanding work that is happening in coal country to clean up pernicious pollution from abandoned coal mines. It will extend and enhance the great value of the AML provisions of the Infrastructure Investment and Jobs Act (IIJA) by assuring projects completed using those funds will continue to provide restoration in perpetuity.

Abandoned Mine Drainage (AMO) treatment is often addressed by building water treatment systems, which result in ongoing Operation Maintenance and Replacement (OMR) costs that endure in perpetuity. However, states often lack the financial ability to support these types of long-term liabilities. If enacted, H.R. 7283 would allow for up to 30 percent of a state's annual allocation for Abandoned Mineland (AML) reclamation under IIJA to be deposited into an interest-bearing account to provide for the perpetual OMR expenses of facilities to treat AMO. This language mirrors the authority of current state programs that allow a 30 percent set-aside from the Surface Mining Control and Reclamation Act's (SMCRA) AML Trust Fund. This approach will help to ensure that projects funded by the IIJA will have funds for this necessary long-term OM&R expense, thereby sustaining long term the thousands of stream miles that will be restored by AMO treatment.

A recent study by TU demonstrated the long-term benefits of ongoing cleanup work funded by SMCRA's AML Fund, recently reauthorized and expanded substantially by the IIJA. On the West Branch of the Susquehanna River in Pennsylvania, thanks to AML funding and well-crafted projects by watershed groups, the state, and Trout Unlimited, we are seeing watershed scale benefits—hundreds of miles of stream and mainstem river restored, recreation rejuvenated, jobs created, and watersheds made more resilient and better able to withstand the impacts of a changing climate. And this is but one example of this restoration occurring throughout Appalachia, much of it in areas rendered dead by mining that occurred decades to over a hundred years ago.

Without the authority to set aside IIJA monies for the perpetual Operation Maintenance and Replacement of these facilities, communities and ecosystems impacted by legacy mining issues are given the gift of restoration with no certainty that it will continue in perpetuity. This legislation provides a critical piece of the puzzle assuring

that future generations will continue to reap these benefits.

Thank you for taking up this important legislation and for considering our views. We look forward to working with bill sponsors and members of the committee to advance this bill into law.

Sincerely,

STEVE MOYER,
Vice President of Government Affairs.

Mr. LOWENTHAL. Mr. Speaker, I thank my colleague, Representative CARTWRIGHT, for introducing this important bipartisan legislation and working to build such an impressive coalition of support. I urge my colleagues to vote ''yes'' on H.R. 7283, and I reserve the balance of my time.

Mr. WESTERMAN. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I, too, rise in support of H.R. 7283, the Safeguarding Treatment for the Restoration of Ecosystems from Abandoned Mines Act, also known as the STREAM Act.

The Infrastructure Investment and Jobs Act appropriated $11.3 billion to the Abandoned Mine Lands, or the AML, trust fund. This money is for use by State AML programs to address abandoned mine lands created before enactment of the Surface Mining Control and Reclamation Act of 1977.

This historic, fee-based AML program allows a State to set aside up to 30 percent of its annual AML grant in an interest-bearing account to cover the long-term costs of acid mine drainage, or AMD, facilities, which are often needed to address water treatment in historic coal mining states.

The Infrastructure Investment and Jobs Act reauthorizes the collection of the AML fee at a reduced rate, as well as a 30 percent set-aside authority for States. However, the IIJA neglected to grant parallel set-aside authority for the newly authorized $11.3 billion in Treasury funds for AML projects.

This is one of the many areas Congress will need to correct in the hastily passed IIJA bill, and it goes to show why we need to have regular order, why we need to have committee hearings, and why we need to take our time on these large bills.

That large IIJA bill never went through a committee in the House. It was sent over from the Senate, hastily adopted, and here we are today, trying to fix it. I am sure it won't be the last time.

The STREAM Act is a bipartisan bill that will make a technical fix to IIJA, clarifying that States receiving newly authorized funds for AML cleanup have the authority to set aside a portion of those funds for AMD cleanup purposes consistent with existing law. This will allow States to utilize AML funds according to their specific needs.

That said, the Department of the Interior recently released final guidance for States applying to receive funds authorized for AML cleanup that includes requirements over and above the letter of the law. DOI should allow States to make decisions on prioritizing AML sites and refrain from imposing unauthorized and heavy-handed requirements.

Mr. Speaker, I urge adoption of this bill, and I reserve the balance of my time.

Mr. LOWENTHAL. Mr. Speaker, I yield such time as he may consume to the gentleman from Pennsylvania (Mr. CARTWRIGHT).

Mr. CARTWRIGHT. Mr. Speaker, I thank the gentleman from California for yielding time.

I am addressing H.R. 7283, the Safeguarding Treatment for the Restoration of Ecosystems from Abandoned Mines Act, or the STREAM Act. It has been accurately described up to now as a responsible, commonsense, technical fix to the Department of the Interior's Abandoned Mine Lands Reclamation Program. It is a small change, but it will have a large, long-lasting, positive effect on State efforts to clean up legacy pollution from coal mining.

Specifically, the bill allows States to hold back 30 percent of existing allocations for long-term operating and maintenance costs of abandoned mine land reclamation.

When rainwater and river water runs over oxidized pyrite in abandoned coal mines, it turns color, and the whole area becomes toxic. The damage can last for hundreds or even thousands of years if nothing is done to fix it.

In my beautiful State of Pennsylvania, acid mine drainage, or AMD, affects over 5,000 miles of waterways. No one wants to live or work near these dead zones in rivers and streams.

The Pennsylvania Fish and Boat Commission estimates an annual loss of $29 million in revenue from recreational fishing in such areas.

We know how to fix the problem. Cleaning up acid mine drainage always creates jobs, brings back recreation opportunities, boosts local economies, and makes communities healthier and stronger and much more attractive to visitors and new investments.

Acid mine drainage requires costly, ongoing maintenance, and H.R. 7283 helps pay for that ongoing maintenance. It is not a new idea. The legacy Abandoned Mine Land Reclamation Program, which has been on the books for years, currently allows States to set aside up to 30 percent of their annual regular abandoned mine lands allocation to cover the long-term costs of operating AMD treatment facilities and maintaining them over the long term.

It is optional, and States have to enact their own programs to engage in the program. Eleven States have done so, so far. Pennsylvania, West Virginia, Kentucky, Ohio, Indiana, Illinois, Missouri, Maryland, Virginia, Tennessee, and Alabama have chosen to do so.

H.R. 7283 opens the innovation door by making up to 30 percent of all AML funds available for such acid mine drainage projects if States want to go that way.

There is no mandate here. It is their choice. Nothing in current law or the STREAM Act is mandatory, and nothing in the bill raises or authorizes any additional Federal spending for abandoned mine land or acid mine drainage work.

What it gives States is the important option of restoring waterways and maintaining those restoration projects for many years to come.

It is a responsible way to spend this money by extending it out over time so that we don't blow it all at once and then let existing mine reclamation areas fall apart. The STREAM Act can take existing Federal allocations for AML cleanup and make it last a very long time.

Mr. Speaker, I thank the ranking member for his support. I thank Representative MCKINLEY, to be sure, for his leadership in the House on this effort, and I thank all the other bipartisan cosponsors of this bill. Mr. Speaker, I urge all Members to support the bill.

Mr. WESTERMAN. Mr. Speaker, I yield 3 minutes to the gentleman from West Virginia (Mr. MCKINLEY), who is the Republican lead on this legislation and who is also a fellow engineer and knows a lot about coal mining.

Mr. MCKINLEY. Mr. Speaker, I thank the chairman-in-waiting for the opportunity to address this.

Mr. Speaker, I rise in support of the STREAM Act. Over the last century, American companies have mined coal in at least 26 States across the country. Over that same period of time, thousands of these mines have ceased operation.

Abandoned mines produce acid drainage that, unfortunately, flows into our streams and is toxic. As a result, tens of thousands of miles of streams and waterways across America are being poisoned.

West Virginia alone, according to the West Virginia Department of Environmental Protection, has indicated that we have 1,500 miles of streams that are toxic in West Virginia.

The STREAM Act ensures States have the flexibility to use these federally allocated funds for acid mine drainage cleanup and provides long-term maintenance of these cleanup projects. The bill preserves the use of important guidelines already in place, as you have heard, and simply extends them to recently approved new funding measures.

Making our streams safe is not a partisan issue. Mr. Speaker, as chairman of the Congressional Coal Caucus, I am proud to be leading the Republican effort, in conjunction with Representative CARTWRIGHT, to pass this bipartisan legislation.

For anyone who has never seen these orange, poisoned streams, they will never understand the gravity of the situation. But for those of us that have seen and lived with this devastation that will last for years, decades, into the future, the time to vote ''yes'' is now.

Mr. Speaker, I urge support of the STREAM Act, and I encourage a ''yes'' vote.

□ 1630

Mr. LOWENTHAL. Mr. Speaker, I have no further requests at this time. I am prepared to close, and I reserve the balance of my time.

Mr. WESTERMAN. Mr. Speaker, I have no other speakers. I urge adoption of the bill, and I yield back the balance of my time.

Mr. LOWENTHAL. Mr. Speaker, I urge my colleagues to support the legislation, and I yield back the balance of my time.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from California (Mr. LOWENTHAL) that the House suspend the rules and pass the bill, H.R. 7283, as amended.

The question was taken.

The SPEAKER pro tempore. In the opinion of the Chair, two-thirds being in the affirmative, the ayes have it.

Mr. NORMAN. Mr. Speaker, on that I demand the yeas and nays.

The yeas and nays were ordered.

The SPEAKER pro tempore. Pursuant to clause 8 of rule XX, further proceedings on this motion will be postponed.

WIND RIVER ADMINISTRATIVE SITE CONVEYANCE ACT

Mr. LOWENTHAL. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 5093) to direct the Secretary of Agriculture to transfer certain National Forest System land in the State of Washington to Skamania County, Washington, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 5093

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Wind River Administrative Site Conveyance Act''.

SEC. 2. DEFINITIONS.

In this Act:

(1) COUNTY.—The term ''County'' means the Skamania County, Washington.

(2) MAP.—The term ''map'' means the map entitled ''Wind River Administrative Site Conveyance Proposal'' and dated July 7, 2020.

(3) SECRETARY.—The term ''Secretary'' means the Secretary of Agriculture, acting through the Chief of the Forest Service.

SEC. 3. CONVEYANCE OF LAND AND IMPROVEMENTS.

(a) IN GENERAL.—If the County submits a written request to the Secretary not later than 180 days after the date of enactment of this Act, the Secretary shall, not later than 24 months after the date of the enactment of this Act, convey to the County all right, title, and interest of the United States in and to the approximately 23.4 acres of National Forest System land, related infrastructure, and all improvements, as generally depicted as ''proposed conveyance'' on the map.

(b) MAP.—

(1) AVAILABILITY OF MAP.—The map shall be kept on file and available for public inspection in the appropriate office of the Forest Service.

(2) CORRECTION OF ERRORS.—The Secretary may correct minor errors in the map.

(c) TERMS AND CONDITIONS.—The conveyance under subsection (a) shall be—

(1) subject to valid existing rights;

(2) notwithstanding any other provision of law, made without consideration;

(3) made by quitclaim deed;

(4) subject to a right-of-way and restrictive easement reservation of a width to be determined by the Secretary, for the protection of the Pacific Crest National Scenic Trail;

(5) completed in accordance with the Forest Service Facility Realignment and Enhancement Act of 2005 (16 U.S.C. 580d et seq.), except that section 504(b) and (c) of that Act shall not apply;

(6) subject to right-of-way reservations made pursuant to section 507 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1767); and

(7) subject to any other terms and conditions as the Secretary determines appropriate.

(d) FEDERAL PROPERTY DISPOSAL.—Chapter 5 of subtitle I of title 40, United States Code, shall not apply to the conveyance under subsection (a).

(e) HAZARDOUS MATERIALS.—With respect to the conveyance under subsection (a), the Secretary—

(1) shall meet disclosure requirements for hazardous substances, pollutants, or contaminants under section 120(h) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9620(h)); and

(2) shall not otherwise be required to remediate or abate the hazardous substances, pollutants, or contaminants disclosed pursuant to paragraph (1).

(f) CLOSING COSTS.—As a condition for the conveyance under subsection (a), the County shall pay all closing costs associated with the conveyance, including for—

(1) title insurance and title search; and

(2) any applicable inspection fees, escrow fees, attorneys fees, and recording fees.

(g) SURVEY.—

(1) IN GENERAL.—The exact acreage and legal description of the National Forest System land to be conveyed under subsection (a) shall be determined by a survey satisfactory to the Secretary.

(2) COSTS OF SURVEY.—The Secretary shall bear all costs associated with the survey under paragraph (1).

(h) USE OF LAND.—

(1) IN GENERAL.—The lands and related infrastructure conveyed under subsection (a) shall be maintained by the County pursuant to standards established by the Secretary of the Interior under section 306101 of title 54, United States Code.

(2) REVERSION.—If any portion of the land conveyed under subsection (a) is used in a manner that is inconsistent with the use described in paragraph (1), the land shall, at the discretion of the Secretary, revert to the United States.

SEC. 4. DETERMINATION OF BUDGETARY EFFECTS.

The budgetary effects of this Act, for the purpose of complying with the Statutory Pay-As-You-Go Act of 2010, shall be determined by reference to the latest statement titled ''Budgetary Effects of PAYGO Legislation'' for this Act, submitted for printing in the Congressional Record by the Chairman of the House Budget Committee, provided that such statement has been submitted prior to the vote on passage.

The SPEAKER pro tempore. Pursuant to the rule, the gentleman from California (Mr. LOWENTHAL) and the gentleman from Arkansas (Mr. WESTERMAN) each will control 20 minutes.

The Chair recognizes the gentleman from California.

GENERAL LEAVE

Mr. LOWENTHAL. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days in which to revise and extend their remarks and include extraneous material on the measure under consideration.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from California?

There was no objection.

Mr. LOWENTHAL. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I rise in support of H.R. 5093, the Wind River Administrative Site Conveyance Act. This bill would authorize the U.S. Forest Service to convey a 23.4-acre portion of the Wind River Nursery to Skamania County, Washington.

Congress authorized a land exchange that included a large portion of the Wind River Nursery in 2001. The conveyance authorized by this legislation will complete the transfer and place the entire Wind River property under the stewardship of the county.

This legislation will allow the Skamania County Board of Commissioners to continue rehabilitation of the buildings and the grounds in the Wind River Historic District.

The bill also includes important and routine safeguards so the property will continue to be managed in a manner that ensures the preservation of its historic characteristics.

I thank the gentlewoman from Washington (Ms. HERRERA BEUTLER) for introducing this important legislation and championing this bill on behalf of her constituents.

Mr. Speaker, I urge my colleagues to vote ''yes'' on this bill, and I reserve the balance of my time.

Mr. WESTERMAN. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I, too, rise in support of H.R. 5093, sponsored by the gentlewoman from Washington (Ms. HERRERA BEUTLER). This is a good bill, and I commend her for her leadership on this effort.

Skamania County in Representative HERRERA BEUTLER's district is almost 77 percent federally owned. Unfortunately, because of the large number of public lands in the county, less than 2 percent of the county's land base can be taxed at full market value.

The presence of a large Federal estate is shared by many other rural counties in the West, and it makes it very difficult for communities to generate revenue needed to fund schools, roads, and vital public services, such as police and fire departments.

H.R. 5093 would transfer ownership of approximately 23 acres of the former Wind River Nursery from the Forest Service to the county to expand uses that will draw in tourism, provide economic opportunities, and create additional tax revenue for the county. The county estimates that this conveyance will ultimately lead to an additional $600,000 in revenue each year.

Skamania County has also already made considerable investments to restore this site with upgrades to water mains, full restorations to two residential buildings, and electric improvements to four additional buildings.

I, again, thank the gentlewoman from Washington (Ms. HERRERA BEUTLER) for her leadership on this bill. The legislation reflects a locally driven compromise that meets the needs of the community, creates additional recreation opportunities, and will lead to better management of Federal land.

Mr. Speaker, I urge adoption of the bill, and I reserve the balance of my time.

Mr. LOWENTHAL. Mr. Speaker, I have no further requests for time. I am prepared to close, and I reserve the balance of my time.

Mr. WESTERMAN. Mr. Speaker, I yield 5 minutes to the gentlewoman from Washington (Ms. HERRERA BEUTLER).

Ms. HERRERA BEUTLER. Mr. Speaker, I rise today in support of my bill, the Wind River Administrative Site Conveyance Act which, if we get it passed today by the House and signed into law, will provide enormous benefits to the folks I serve in Skamania County, Washington.

This bill exemplifies a groundbreaking win-win agreement in a rural county where so often locals' needs get completely trampled by the Federal Government.

With this carefully negotiated solution, the Forest Service unloads land that it no longer wants to manage, and the local community gains a very valuable economic asset and resource.

In Skamania County, where 80 percent of the land is locked up by the Federal Government, even more if you count the State-owned land, only 1.8 percent of the land in the county is taxed at full market value.

What does that mean?

It means that this has severely hindered the county's ability to fund basic services that citizens rely upon, like roads and schools, and police and fire protection.

The bill that I have introduced and that we are considering today is simple. It would convey ownership of approximately 23 acres in the former Wind River Nursery from the U.S. Forest Service to Skamania County. It is important to note here that this proposal is supported by Skamania County and by the Forest Service.

The Gifford Pinchot National Forest, which covers a majority of the county, is currently facing tens of millions of dollars in deferred maintenance.

By conveying the land to the county, the Forest Service will shed that financial responsibility for these pieces associated with the maintenance of buildings and facilities on the Wind River Nursery, and by taking ownership of the land, Skamania County will develop recreational, historical, and business opportunities that will draw in tourism and critical revenue.

This is a win-win solution, and it will result in substantial benefits to the folks who call Skamania County home.

Mr. Speaker, I urge the House to approve this important legislation.

Mr. WESTERMAN. Mr. Speaker, I have had the opportunity to visit Skamania County. It is a beautiful place, and I know that the people there will be great stewards of this land. It will be good for Skamania County, for Washington, and for the United States, and I urge adoption of the bill.

Mr. Speaker, I yield back the balance of my time.

Mr. LOWENTHAL. Mr. Speaker, I urge my colleagues to support the legislation, and I yield back the balance of my time.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from California (Mr. LOWENTHAL) that the House suspend the rules and pass the bill, H.R. 5093, as amended.

The question was taken; and (two-thirds being in the affirmative) the rules were suspended and the bill, as amended, was passed.

A motion to reconsider was laid on the table.

INCLUDING CERTAIN COMPUTER-RELATED PROJECTS IN THE FEDERAL PERMITTING PROGRAM UNDER TITLE XLI OF THE FAST ACT

Mr. COSTA. Mr. Speaker, I move to suspend the rules and pass the bill (S. 3451) to include certain computer-related projects in the Federal permitting program under title XLI of the FAST Act, and for other purposes.

The Clerk read the title of the bill.

The text of the bill is as follows:

S. 3451

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. FEDERAL PERMITTING IMPROVEMENT.

Section 41001(6)(A) of the FAST Act (42 U.S.C. 4370m(6)(A)) is amended, in the matter preceding clause (i), by inserting ''semiconductors, artificial intelligence and machine learning, high-performance computing and advanced computer hardware and software, quantum information science and technology, data storage and data management, cybersecurity,'' after ''manufacturing,''.

The SPEAKER pro tempore. Pursuant to the rule, the gentleman from California (Mr. COSTA) and the gentleman from Arkansas (Mr. WESTERMAN) each will control 20 minutes.

The Chair recognizes the gentleman from California.

GENERAL LEAVE

Mr. COSTA. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days in which to revise and extend their remarks.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from California?

There was no objection.

Mr. COSTA. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, this is a commonsense bill that I believe has bipartisan support involving the construction of chip manufacturing and other computer-related manufacturing rights here in the United States. Obviously, this is a big effort that has been ongoing in Congress for some time.

The bill here simply adds key national security-related technologies, like semiconductors, to the types of projects that are eligible for an existing Federal program that improves the coordination between Federal departments on permitting. We oftentimes, as we know, have difficulty in getting the permitting process to work, and it creates delays in process. It not only takes time, but it increases costs. So this is an effort to try to address that.

The bill passed the Senate unanimously back in January. Sending this bill to the President will build on the progress we are already making today with the CHIPS and Science Act.

Both bills are critical to America leading in manufacturing of chips. We know that it is the future of the 21st century economy that creates good jobs and ensures our competitiveness in the global economy that we live in.

Mr. Speaker, I urge the House's adoption of this bill, and I reserve the balance of my time.

Mr. WESTERMAN. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I, too, rise in support of S. 3451. However, when we start sacrificing regular order to score political points, we are on an extremely slippery slope. Unfortunately, that is the course this bill sets us on.

It didn't move through the Committee on Natural Resources, the committee of jurisdiction. Instead, it was one of the many promises made by Democrat leadership to secure the votes they needed in the Senate to pass the CHIPS-Plus Act.

The irony of this, Mr. Speaker, is yesterday we were in an all-day long markup in the Natural Resources Committee on Chairman GRIJALVA's Environmental Justice for All Act, which is a bill that really doubles down on NEPA regulations. Obviously, we have differences of opinion on that, but we were having the debate. Democrats wanted to increase NEPA regulations, Republicans wanted to streamline regulations.

So you can imagine the shock when Chairman GRIJALVA's staff, almost simultaneously with my staff, told us to be prepared tomorrow afternoon because there is going to be a NEPA streamlining bill on the suspension calendar.

When I was told the bill was being added, I thought to myself, this bill didn't go through regular order, and this is something my colleagues across the aisle would normally really be opposed to. So I Googled the bill, and it turns out that S. 3451 is but a bargaining chip in the larger CHIPS debate.

This is what I found on the internet. It said, ''From yesterday's Roll Call, as they reported on the CHIPS-Plus package.'' A quote from that is: ''One of the Republicans who voted for the bill . . . had sought an amendment to fast track the permitting process for companies building semiconductor plants . . . instead he was promised that the House would clear his Senate-passed bill.''

This legislation, S. 3451, provides modest permit streamlining to expedite reviews of infrastructure projects concerning semiconductors, artificial intelligence and machine learning, high-performance computing and advanced computer hardware and software, quantum information science and technology, data storage, and data management, or cybersecurity.

□ 1645

Mr. Speaker, I strongly support streamlining. In fact, for the last 18 months, Republicans on the Committee on Natural Resources have been calling to move legislation that would streamline the onerous NEPA process, cut bureaucratic red tape, and fight back against environmental activist litigants, the kinds of meaningful actions Congress needs to take to move our country forward.

I woke up this morning, and I was reading online my local newspaper back home. There was actually a story about the CHIPS Act that talked about this very bill that we have on the suspension calendar today. I found it interesting that someone from the Sierra Club was interviewed about it.

Now, normally if you are going to streamline NEPA, it sets Sierra Club's hair on fire, and they are calling all of their activists and putting alerts out. But it was interesting that on this one, the Sierra Club was going to study the text a little bit more, even though we are here this afternoon passing this on suspension.

These commonsense Republican solutions are crucial to improving the health of our Federal lands, repairing our crumbling infrastructure, constructing water storage projects needed to make our Western communities more resilient to drought, and developing America's domestic resources to secure our supply chain and our country.

In response, Democrats have repeatedly told us we were gutting bedrock environmental laws, and that we support pillaging the land from sea to shining sea.

Just yesterday, I spent, as I mentioned, over 10 hours in a Committee on Natural Resources markup where the Democrats advanced a bill—we not only debated it; we marked it up and advanced it—a bill to expand NEPA, create more burdensome red tape, and handcuff our great Nation from future development.

Now, today, after years of committee Republicans hearing how we are trying to destroy America, suddenly the exact same commonsense streamlining and reasonable sideboards on frivolous litigation are necessary to build semiconductor plants and America's future.

This bill is only part of the solution. While building domestic chip manufacturing facilities is important and we want to bring those jobs to the United States for American workers, the reality is there is not much domestic about a chip made with 100 percent foreign materials.

For instance, today, the United States is 100 percent reliant on other countries to meet our demand for gallium and indium, both of which are needed in semiconductors. China is the lead supplier for both.

Semiconductors also require a mineral called bismuth, 90 percent of which the U.S. imports. Again, China is the lead supplier to the U.S. of bismuth.

Semiconductors are among dozens of high-tech commodities, such as satellites, electric vehicles, and missile defense systems reliant on mineral resources to function. China unquestionably controls the market on nearly every one of the necessary minerals.

If we truly want to secure the supply chain for semiconductors and the huge array of other products dependent on critical minerals, it is imperative to ensure a robust domestic mining industry through an efficient, predictable mine permitting system here in the United States.

While the bill before us is a step in the right direction, it does not address the supply chain necessary to build our domestic high-tech manufacturing technology.

Republicans have the solutions. To name a few: H.R. 2604, the Accessing America's Critical Mineral Act, introduced by Congressman PETE STAUBER, reforms onerous and duplicative steps in the critical mineral permitting process by requiring Federal agencies to adhere to timelines and improve coordination.

H.R. 2637, the American Critical Minerals Independence Act, introduced by Congressmen MICHAEL WALTZ and PAUL GOSAR, invests in recycling technologies and innovative mining and processing techniques, streamlines the permitting of critical minerals production, and requires that agencies analyze the mineral potential of Federal lands.

If Democrats were serious about streamlining and promoting a robust domestic manufacturing sector for semiconductors and other high-tech applications, they would be bringing these bills and others to the floor.

Mr. Speaker, S. 3451 is a modest step in the right direction, and I support the passage of this bill. Now that it appears Democrats have seen the error of their ways and they suddenly have done a 180 on streamlining environmental bureaucracy, I look forward to working with each and every Member who votes for this bill to advance many other Republican solutions to further address streamlining and secure a robust domestic critical minerals supply chain.

Unfortunately, while I would like to say that, with Democrats' newfound support of streamlining, the remaining Republican solutions will be coming to the floor quickly, something tells me Democrats' willingness to ignore environmental extremists and bring up commonsense policy solutions like S. 3451 has a lot more to do with politics than making good policy.

Mr. Speaker, I urge adoption of this bill, and I reserve the balance of my time.

Mr. COSTA. Mr. Speaker, I reserve the balance of my time.

Mr. WESTERMAN. Mr. Speaker, I urge adoption of this bill, and I yield back the balance of my time.

Mr. COSTA. Mr. Speaker, clearly, I think there is an agreement that America needs to increase its production of critical minerals for the economy of the 21st century. I think oftentimes there are differences on how we establish a framework and a goal in terms of the production of those critical minerals.

I think that there is support on both sides of the aisle for streamlining the permitting process that is reflected in this bill, and, clearly, I appreciate the efforts and the comments of my colleague, the gentleman from Arkansas. Obviously, we have more work to do, and this is a good bill.

Mr. Speaker, I urge the House's adoption, and I yield the balance of my time.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from California (Mr. COSTA) that the House suspend the rules and pass the bill, S. 3451.

The question was taken.

The SPEAKER pro tempore. In the opinion of the Chair, two-thirds being in the affirmative, the ayes have it.

Mr. NORMAN. Mr. Speaker, on that I demand the yeas and nays.

The yeas and nays were ordered.

The SPEAKER pro tempore. Pursuant to clause 8 of rule XX, further proceedings on this motion will be postponed.

ANNOUNCEMENT BY THE SPEAKER PRO TEMPORE

The SPEAKER pro tempore. With respect to a unanimous consent request entered earlier today by Mr. SCHWEIKERT of Arizona, the Chair would clarify that such request cannot be entertained with respect to H.R. 4270.

PERMISSION FOR MEMBER TO BE CONSIDERED AS FIRST SPONSOR OF H.R. 4720

Mr. SCHWEIKERT. Mr. Speaker, I ask unanimous consent that I may hereafter be considered to be the first sponsor of H.R. 4720, a bill originally introduced by Representative REED of New York, for the purpose of adding cosponsors and requesting reprintings pursuant to clause 7 of rule XII.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from Arizona?

There was no objection.

DEMOCRATS ARE WORKING TO LOWER COSTS FOR WORKING FAMILIES

(Ms. GARCIA of Texas asked and was given permission to address the House for 1 minute and to revise and extend her remarks.)

Ms. GARCIA of Texas. Mr. Speaker, I rise to celebrate House Democrats' efforts to lower costs for working families across America.

For months now, Democrats and the President have been working closely together to lower the prices of gas for Americans. We have focused on people's pocketbooks, not politics.

As a result, gas prices have been decreasing for 5 straight weeks, down around 70 cents since last month. In fact, $3.99 a gallon is the most common price in America today. Mr. Speaker, I saw the $3.99, and lower, in the Houston area over the weekend.

On average, drivers are saving $35 per month. For residents in my district, this can mean the difference between a warm family meal or going hungry.

While Republicans in Congress have no solutions to lower prices and remain focused on other matters, like stripping women of their reproductive rights, House Democrats will continue delivering results for the American people. We are the party that puts people over politics.

OPPOSING THE LEFT'S ANTI-LIFE AGENDA

(Ms. FOXX asked and was given permission to address the House for 1 minute and to revise and extend her remarks.)

Ms. FOXX. Mr. Speaker, radical progressives will stop at nothing to advance their agenda of murdering the unborn.

On July 15, on this very floor, the majority rushed through two horrendous pieces of legislation that directly target the unborn: the abortion on demand until birth act and the so-called Ensuring Access to Abortion Act.

The right to life is guaranteed by the 14th Amendment to the Constitution, and the majority continues to conveniently ignore this fact. This shameful chapter of murdering the unborn should be consigned to the ash heap of history.

Mr. Speaker, an outright denial of life for the most vulnerable, who cannot speak for themselves, is in no way justified. I will always serve as a voice for the unborn. They deserve nothing less than unwavering advocates.

HIGH INFLATION IS CAUSED BY HIGH SPENDING

(Mr. GROTHMAN asked and was given permission to address the House for 1 minute.)

Mr. GROTHMAN. Mr. Speaker, we all know that inflation is the big topic on people's tongues nowadays, but what we can't let people forget is that high inflation is caused by high spending.

Now, what did Congress do after returning to this floor this week and spending the weekend hearing people complain about high gas prices, but even more high housing prices, high food prices? They passed the CHIPS bill today for $76 billion.

Now, I know why they thought they could vote for a $76 billion bill. They thought the public wouldn't know the difference between $76 billion and $76 million. $76 billion is $230 for every man, woman, and child in this country. If you are a family of four, Congress just spent $1,000 of your money and didn't think anything about it.

Now, the other thing that bothers me about it is, I like to look out for the average guy. Who owns these chip companies? The uber wealthy. Seventy-six billion dollars toward the uber wealthy and corporate welfare.

A lot of people think the majority party likes to freely spend money for welfare, for the people who don't work. And that is true; they do. What is not as known is they love to spend money on the uber wealthy as well.

Every newspaper in the country ought to have a banner headline in the morning: ''$76 billion spent again by Congress.''

ADDRESSING THE DROUGHT AND WILDFIRES IN CALIFORNIA

(Mr. COSTA asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. COSTA. Mr. Speaker, the people and communities of California's San Joaquin Valley have been dealing with devastating drought conditions for years.

Water is life, as we say, agua es vida.

A reliable, sustainable water supply is absolutely essential to put America's food on our dinner table. It is a national security issue. Think about it. We can't live without food. Without water, we cannot grow food.

Farmers in my district are feeling the impact of the drought firsthand. Many have fallowed land, sadly. It is becoming more and more difficult to grow food and maintain farmland.

It is really simple. We say back home: Where water flows, food grows.

Small businesses are struggling to survive. Residents suffer from declining air quality, spurred by dust and wildfires that continue to spread across the West.

We must confront the devastating impacts of climate change. The Wildfire and Drought Resiliency Act will improve drought resiliency and protect the giant sequoia trees that are part of America's natural heritage.

Without a doubt, we cannot wait to confront this issue. We must act now.

□ 1700

RECOGNIZING NICK ELLIS

(Mr. CARTER of Georgia asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. CARTER of Georgia. Mr. Speaker, I rise today to recognize Wayne County school system's Nick Ellis for his induction into the Boys & Girls Clubs Hall of Fame.

Nick has been working with the Boys & Girls Clubs for 16 years. After graduating high school in 2006, Nick began working with the Boys & Girls Clubs of Altamaha Area as a volunteer, then as a unit director, before rising to board membership. Today, he also serves as the area's chief volunteer officer.

Throughout his time with the club, Nick has been a positive influence in the lives of countless children, providing support and leadership to those in need.

Nick also serves his community as a law enforcement officer with the Jesup Police Department. In his 12 years with the department, Nick has risen through the ranks and currently serves as patrol division commander.

In 2020, Governor Brian Kemp recognized Nick's efforts in law enforcement and appointed Nick to serve on the Georgia Board of Public Safety.

A passionate volunteer dedicated to helping his community beyond his professional career, Nick Ellis is a shining example of leadership and guidance for everyone. He is fully deserving of this hall of fame induction honor.

THE ENERGY CRISIS

(Mr. ROSE asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. ROSE. Mr. Speaker, last week President Biden announced a series of executive orders to further advance his party's Green New Deal agenda. This is further proof of an utterly out-of-touch administration.

The average cost of a gallon of gas is $3.93 in Tennessee, almost double the price when the President took office. Most Americans will spend thousands more this year on filling up their tanks.

Families are also paying an average of $90 a month more for electricity this summer. In addition, reports say our Nation faces looming blackouts—yet this administration is doubling down on regulating our energy producers to death.

The solution is simple: The President should be supporting policies that ramp up domestic oil production, rather than policies that destroy it.

Mr. Biden has blamed oil companies, gas station owners, and everyone else for this disaster, but if he wants to assign blame, he need look no further than the mirror.

ADJOURNMENT

The SPEAKER pro tempore. Pursuant to section 1 of House Resolution 1230, the House stands adjourned until 9 a.m. tomorrow.

Thereupon (at 5 o'clock and 1 minute p.m.), under its previous order, the House adjourned until tomorrow, Friday, July 29, 2022, at 9 a.m.

BUDGETARY EFFECTS OF PAYGO LEGISLATION

Pursuant to the Statutory Pay-As-You-Go Act of 2010 (PAYGO), Mr. YARMUTH hereby submits, prior to the vote on passage, for printing in the CONGRESSIONAL RECORD, that H.R. 5093, the Wind River Administrative Site Conveyance Act, as amended, would have no significant effect on the deficit, and therefore, the budgetary effects of such bill are estimated as zero.

EXECUTIVE COMMUNICATIONS, ETC.

Under clause 2 of rule XIV, executive communications were taken from the Speaker's table and referred as follows:

EC–4954. A letter from the Assistant Secretary for Legislation, Department of Health and Human Services, transmitting the Department's Assertive Community Treatment Grant Program Report to Congress, pursuant to Sec. 9015 of the 21st Century Cures Act (Public Law 114-255); to the Committee on Energy and Commerce.

EC–4955. A letter from the Secretary, Department of the Treasury, transmitting a six-month periodic report on the national emergency with respect to Lebanon that was declared in Executive Order 13441 of August 1, 2007, pursuant to 50 U.S.C. 16411, and Sec. 2041 of the International Emergency Economic Powers Act, 50 U.S.C. 1703(c); to the Committee on Foreign Affairs.

EC–4956. A letter from the Chairman, Council of the District of Columbia, transmitting D.C. Act 24-480, ''Fiscal Year 2022 Second Revised Local Budget Adjustment Temporary Act of 2022'', pursuant to Public Law 93-198, Sec. 602(c)(1); (87 Stat. 814); to the Committee on Oversight and Reform.

EC–4957. A letter from the Chairman, Council of the District of Columbia, transmitting D.C. Act 24-481, ''Targeted Historic Preservation Assistance Temporary Amendment Act of 2022'', pursuant to Public Law 93-198, Sec. 602(c)(1); (87 Stat. 814); to the Committee on Oversight and Reform.

EC–4958. A letter from the Chairman, Council of the District of Columbia, transmitting D.C. Act 24-482, ''Engineering Licensure Temporary Amendment Act of 2022'', pursuant to Public Law 93-198, Sec. 602(c)(1); (87 Stat. 814); to the Committee on Oversight and Reform.

EC–4959. A letter from the Chairman, Council of the District of Columbia, transmitting D.C. Act 24-483, ''Cannabis Employment Protections Amendment Act of 2022'', pursuant to Public Law 93-198, Sec. 602(c)(1); (87 Stat. 814); to the Committee on Oversight and Reform.

EC–4960. A letter from the Chairman, Council of the District of Columbia, transmitting D.C. Act 24-484, ''900 55th Street N.E. and 2327-2341 Skyland Terrace S.E. DC Habitat Real Property Tax Exemption Amendment Act of 2022'', pursuant to Public Law 93-198, Sec. 602(c)(1); (87 Stat. 814); to the Committee on Oversight and Reform.

EC–4961. A letter from the Chairman, Council of the District of Columbia, transmitting D.C. Act 24-486, ''Fiscal Year 2023 Local Budget Act of 2022'', pursuant to Public Law 93-198, Sec. 602(c)(1); (87 Stat. 814); to the Committee on Oversight and Reform.

EC–4962. A letter from the Deputy Associate Administrator, National Aeronautics and Space Administration, transmitting the Administration's FAIR Act Inventory Executive Summary for 2021, pursuant to Pub. Law 105-270; to the Committee on Oversight and Reform.

EC–4963. A letter from the Chief Financial Officer, Architect of the Capitol, transmitting the Semiannual Report of Disbursements for the Architect of the Capitol for the period January 1, 2022, through June 30, 2022, pursuant to 2 U.S.C. 1868a(a); Public Law 113-76, div. I, title I, Sec. 1301(a); (128 Stat. 428) (H. Doc. No. 117-136); to the Committee on House Administration and ordered to be printed.

EC–4964. A letter from the President, National Council on Radiation Protection and Measurements, transmitting the Council's 2021 annual independent audit report, pursuant to 36 U.S.C. 10101(b)(1) and 150909; to the Committee on the Judiciary.

REPORTS OF COMMITTEES ON PUBLIC BILLS AND RESOLUTIONS

Under clause 2 of rule XIII, reports of committees were delivered to the Clerk for printing and reference to the proper calendar, as follows:

Mr. THOMPSON of Mississippi: Committee on Homeland Security. H.R. 7778. A bill to amend the Homeland Security Act of 2002 to prohibit misuse of the Department of Homeland Security seal, and for other purposes; with an amendment (Rept. 117–446). Referred to the Committee of the Whole House on the state of the Union.

PUBLIC BILLS AND RESOLUTIONS

Under clause 2 of rule XII, public bills and resolutions of the following titles were introduced and severally referred, as follows:

By Ms. BONAMICI (for herself and Mr. FITZPATRICK):

H.R. 8548. A bill to amend the Education Sciences Reform Act of 2002 to establish a National Center for Advanced Development in Education at the Institute for Education Sciences, and for other purposes; to the Committee on Education and Labor.

By Mr. COURTNEY (for himself, Mr. THOMPSON of Pennsylvania, Mrs. HAYES, Ms. BLUNT ROCHESTER, Ms. LOFGREN, Ms. PINGREE, Ms. KELLY of Illinois, and Mr. WELCH):

H.R. 8549. A bill to amend the Higher Education Act of 1965 to include certain individuals who work on farms or ranches as individuals who are employed in public service jobs for purposes of eligibility for loan forgiveness under the Federal Direct Loan program; to the Committee on Education and Labor.

By Mr. ROY (for himself, Mrs. MILLER of Illinois, Mr. NEHLS, Mr. GOOD of Virginia, and Mrs. BOEBERT):

H.R. 8550. A bill to provide that all Federal employees in the executive branch of Government are at-will employees, and for other purposes; to the Committee on Oversight and Reform.

By Mr. MCEACHIN (for himself, Ms. BARRAGÁN, Ms. BLUNT ROCHESTER, Ms. CASTOR of Florida, Ms. CLARKE of New York, Mr. GRIJALVA, and Ms. JAYAPAL):

H.R. 8551. A bill to improve air quality management and the safety of communities using the best available monitoring technology and data; to the Committee on Energy and Commerce.

By Mr. ALLRED (for himself and Ms. WASSERMAN SCHULTZ):

H.R. 8552. A bill to provide for the Secretary of Health and Human Services to establish grant programs to improve the health and positive youth development impacts of youth sports participation, and for other purposes; to the Committee on Education and Labor, and in addition to the Committee on Energy and Commerce, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned.

By Mrs. BICE of Oklahoma (for herself, Mr. JOHNSON of Louisiana, and Mr. POSEY):

H.R. 8553. A bill to amend title 37, United States Code, to exempt certain bonuses, incentive pay, and other benefits from repayment in the case of a member of the Armed Forces involuntarily separated for refusing to receive a vaccination against COVID-19; to the Committee on Armed Services.

By Mrs. BICE of Oklahoma (for herself and Mr. WALTZ):

H.R. 8554. A bill to prohibit the sale of petroleum products from the Strategic Petroleum Reserve to certain entities, and for other purposes; to the Committee on Energy and Commerce.

By Mr. BLUMENAUER:

H.R. 8555. A bill to amend the Internal Revenue Code of 1986 to stipulate that a parking benefit is not a qualified parking fringe benefit unless an employer offers employees the option to receive an equivalent cash benefit or alternative tax-exempt benefit in lieu of the parking benefit; to the Committee on Ways and Means.

By Mr. BUDD (for himself, Mr. MOONEY, and Mr. PERRY):

H.R. 8556. A bill to enact the Section 401 Certification Rule, and for other purposes; to the Committee on Transportation and Infrastructure.

By Mr. CARTER of Louisiana (for himself and Mr. RODNEY DAVIS of Illinois):

H.R. 8557. A bill to amend federal law to create expungement mechanism and a process to petition for expungement for low-level violations of the Controlled Substances Act as it relates to marijuana, to study impact of expungements issued, and for other purposes; to the Committee on the Judiciary.

By Mr. COHEN (for himself, Mr. BEYER, Mr. CARSON, Ms. DELAURO, Mr. EVANS, Mr. FOSTER, Mr. GARCÍA of Illinois, Mr. GRIJALVA, Mr. JONES, Ms. LEE of California, Ms. MCCOLLUM, Ms. NEWMAN, Mr. DEFAZIO, Mr. NADLER, Ms. SCHAKOWSKY, Ms. BARRAGÁN, Mr. GOMEZ, Ms. NORTON, Ms. PORTER, Ms. TLAIB, Mrs. WATSON

COLEMAN, Mr. WELCH, Mr. GARAMENDI, Mr. DANNY K. DAVIS of Illinois, Mr. YARMUTH, Mr. MCGOVERN, Ms. CLARKE of New York, Mr. BRENDAN F. BOYLE of Pennsylvania, Ms. PLASKETT, Mr. TAKANO, Mr. MOULTON, Mrs. CAROLYN B. MALONEY of New York, and Mr. DESAULNIER):

H.R. 8558. A bill to amend the Internal Revenue Code of 1986 to impose a minimum tax on certain wealthy taxpayers that takes into account unrealized gains; to the Committee on Ways and Means.

By Ms. CRAIG:

H.R. 8559. A bill to amend the Internal Revenue Code of 1986 to provide tax relief for certain small business owners, to impose a tax on the repurchase of corporate stock, and for other purposes; to the Committee on Ways and Means.

By Mr. CROW (for himself and Mr. MEIJER):

H.R. 8560. A bill to direct the Director of National Intelligence to submit to Congress a report relating to analyses of the military will to fight and the national will to fight with respect to the governments of Ukraine, Afghanistan, and Iraq, and for other purposes; to the Committee on Intelligence (Permanent Select).

By Mr. DAVIDSON (for himself, Mr. HIGGINS of Louisiana, Mr. TIFFANY, Mr. PERRY, Mr. NORMAN, Mr. JACKSON, Mr. SESSIONS, Mr. CLINE, Ms. GRANGER, Mr. BANKS, Mrs. BOEBERT, Mr. HICE of Georgia, and Mr. BUCK):

H.R. 8561. A bill to improve the collection of intelligence regarding activities by drug trafficking organizations in certain foreign countries, and for other purposes; to the Committee on the Judiciary, and in addition to the Committees on Intelligence (Permanent Select), Foreign Affairs, Homeland Security, Oversight and Reform, Energy and Commerce, and Financial Services, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned.

By Mr. DONALDS (for himself and Mr. TIMMONS):

H.R. 8562. A bill to provide for disapproval by Congress of the invocation of authorities under the Defense Production Act of 1950; to the Committee on Financial Services, and in addition to the Committee on Rules, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned.

By Mr. EMMER (for himself, Mrs. CAMMACK, Mr. DONALDS, Mr. CARTER of Georgia, Mr. BANKS, Mr. CLOUD, Mr. TIFFANY, Mr. BILIRAKIS, Mr. NORMAN, Mr. SMITH of Nebraska, Mr. ELLZEY, Mr. RUTHERFORD, Ms. MACE, Mr. HIGGINS of Louisiana, Mr. GOSAR, Mr. ROY, and Mr. MULLIN):

H.R. 8563. A bill to amend chapter 8 of title 5, United States Code, to provide for Congressional oversight of agency rulemaking, and for other purposes; to the Committee on the Judiciary, and in addition to the Committee on Rules, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned.

By Mr. GIBBS:

H.R. 8564. A bill to amend the National Defense Authorization Act with respect to funds for expenses necessary to implement the Port and Intermodal Improvement Program, and for other purposes; to the Committee on Transportation and Infrastructure.

By Mr. GRAVES of Missouri:

H.R. 8565. A bill to amend title XVIII of the Social Security Act to permanently extend the Medicare-dependent hospital and low-volume hospital programs under the Medicare program; to the Committee on Ways and Means.

By Mr. HERN:

H.R. 8566. A bill to impose a fee on certain remittance transfers to fund border security; to the Committee on Ways and Means, and in addition to the Committees on Homeland Security, Foreign Affairs, Financial Services, and the Judiciary, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned.

By Mr. KHANNA:

H.R. 8567. A bill to amend the Higher Education Act of 1965 to support apprenticeship programs; to the Committee on Education and Labor.

By Mr. LIEU (for himself, Mr. WILSON of South Carolina, Mr. MALINOWSKI, Mr. KINZINGER, and Mr. GOLDEN):

H.R. 8568. A bill to provide for the designation of the Russian Federation as a state sponsor of terrorism; to the Committee on Foreign Affairs.

By Mrs. LURIA:

H.R. 8569. A bill to require a direct causal nexus to remove certain cases to Federal court, and for other purposes; to the Committee on the Judiciary.

By Mr. MALINOWSKI (for himself and Ms. KELLY of Illinois):

H.R. 8570. A bill to direct the Federal Trade Commission to conduct an investigation and submit to Congress a report on unfair or deceptive acts or practices that may be prevalent in the advertising or marketing of firearms and to issue regulations to prohibit unfair or deceptive acts or practices related to the advertising or marketing of firearms, and for other purposes; to the Committee on Energy and Commerce.

By Ms. MALLIOTAKIS:

H.R. 8571. A bill to waive sovereign immunity in certain circumstances where jurisdictions have defunded the municipal police department; to the Committee on the Judiciary.

By Mr. SEAN PATRICK MALONEY of New York:

H.R. 8572. A bill to amend the Internal Revenue Code of 1986 to impose an excise tax on fuel based on the carbon content of such fuel, and for other purposes; to the Committee on Ways and Means.

By Ms. MATSUI (for herself, Mr. MICHAEL F. DOYLE of Pennsylvania, Mr. PALLONE, Ms. NORTON, Mr. TONKO, Mr. GRIJALVA, Mr. CARSON, Ms. BONAMICI, Ms. JACOBS of California, Ms. ESHOO, Ms. CLARKE of New York, Mr. BOWMAN, Ms. JAYAPAL, Ms. BARRAGÁN, Mr. WELCH, Mrs. DEMINGS, Mrs. AXNE, Mr. MCNERNEY, Ms. MCCOLLUM, Ms. CASTOR of Florida, Mr. DANNY K. DAVIS of Illinois, Ms. SCHAKOWSKY, Mrs. CAROLYN B. MALONEY of New York, Mr. BLUMENAUER, Mr. LAMB, Mr. LARSON of Connecticut, Mr. KEATING, Mr. VEASEY, and Mr. LEVIN of California):

H.R. 8573. A bill to amend the Communications Act of 1934 to classify broadband as telecommunications service; to the Committee on Energy and Commerce.

By Mr. MCCAUL (for himself and Ms. TITUS):

H.R. 8574. A bill to establish an interagency committee on global catastrophic risk, and for other purposes; to the Committee on Transportation and Infrastructure, and in addition to the Committee on Foreign Affairs, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned.

By Mr. MULLIN:

H.R. 8575. A bill to require the Federal Communications Commission to conduct a study and submit to Congress a report examining the feasibility of funding the Universal Service Fund through contributions supplied by edge providers, and for other purposes; to the Committee on Energy and Commerce.

By Mr. MURPHY of North Carolina (for himself and Mrs. MILLER-MEEKS):

H.R. 8576. A bill to require a study on the effects of travel nurse agencies on the health industry during the COVID-19 pandemic; to the Committee on Energy and Commerce.

By Mr. PERLMUTTER (for himself and Mr. CASTEN):

H.R. 8577. A bill to provide for accurate energy appraisals in connection with residential mortgage loans, and for other purposes; to the Committee on Financial Services, and in addition to the Committee on Veterans' Affairs, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned.

By Ms. SCHAKOWSKY (for herself, Mr. BEYER, and Mr. CASTEN):

H.R. 8578. A bill to amend the Federal Power Act and the Natural Gas Act with respect to the enforcement of certain provisions, and for other purposes; to the Committee on Energy and Commerce.

By Mr. SCHWEIKERT (for himself and Mr. DONALDS):

H.R. 8579. A bill to increase retirement savings, simplify and clarify retirement plan rules, and for other purposes; to the Committee on Ways and Means.

By Ms. SEWELL (for herself and Mr. SMITH of Missouri):

H.R. 8580. A bill to amend the Coronavirus Aid, Relief, and Economic Security Act to provide for a 12-month extension of the Medicare long-term care hospital waiver of the site-neutral IPPS payment rate; to the Committee on Ways and Means.

By Ms. SEWELL (for herself and Mr. BUCHANAN):

H.R. 8581. A bill to amend title XVIII of the Social Security Act to ensure stability in payments to home health agencies under the Medicare program; to the Committee on Ways and Means, and in addition to the Committee on Energy and Commerce, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned.

By Mr. SMITH of Washington:

H.R. 8582. A bill to amend the Internal Revenue Code of 1986 to impose an excise tax on the acquisition of single-family homes by certain large investors; to the Committee on Ways and Means, and in addition to the Committee on Financial Services, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned.

By Mr. STAUBER (for himself and Mr. HUFFMAN):

H.R. 8583. A bill to direct the Secretary of Agriculture to exchange certain public lands in Chippewa National Forest, and for other purposes; to the Committee on Natural Resources.

By Ms. TENNEY (for herself, Mr. MCKINLEY, Mr. BACON, Mr. MANN, and Mr. CAWTHORN):

H.R. 8584. A bill to amend section 248 of title 18, United States Code, to provide adequate penalties and remedies for attacks on facilities providing counseling about abortion alternatives and attacks on places of religious worship; to the Committee on the Judiciary.

By Mr. TONKO (for himself, Mr. BILIRAKIS, Mrs. CAROLYN B. MALONEY of

New York, Mr. UPTON, Mr. HIGGINS of New York, and Mr. MCKINLEY):

H.R. 8585. A bill to direct the Secretary of Health and Human Services to carry out a national project to prevent and cure Parkinson's, to be known as the National Parkinson's Project, and for other purposes; to the Committee on Energy and Commerce.

By Mr. TRONE (for himself and Mr. MEUSER):

H.R. 8586. A bill to allow the Secretary of Health and Human Services to deny approval of a new drug application for an opioid analgesic drug on the basis of such drug not being clinically superior to other commercially available drugs; to the Committee on Energy and Commerce.

By Mr. TURNER:

H.R. 8587. A bill to amend the Child Nutrition Act of 1966 to require that State agencies contract with more than one infant formula manufacturer under the special supplemental program for women, infants, and children, and for other purposes; to the Committee on Education and Labor.

By Mr. WESTERMAN (for himself and Mr. GONZALEZ of Ohio):

H.R. 8588. A bill to address the high costs of health care services, prescription drugs, and health insurance coverage in the United States, and for other purposes; to the Committee on Energy and Commerce, and in addition to the Committees on Ways and Means, Education and Labor, the Judiciary, Oversight and Reform, Rules, the Budget, Armed Services, and House Administration, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned.

By Mr. OWENS (for himself, Mr. SHERMAN, Mr. ZELDIN, Mr. TORRES of New York, Mr. LIEU, Mr. GOTTHEIMER, Ms. BROWN of Ohio, Mr. CURTIS, Ms. STEFANIK, Mr. SMITH of New Jersey, and Mr. LANGEVIN):

H. Res. 1292. A resolution expressing support for the International Olympic Committee to recognize with a minute of silence at every future Olympics Opening Ceremony those who lost their lives at the 1972 Munich Olympics, and for other purposes; to the Committee on Foreign Affairs.

By Mrs. BOEBERT (for herself, Mr. BANKS, Mr. CAREY, Mr. CLYDE, Mr. DUNCAN, Mr. GOHMERT, Mr. HICE of Georgia, Mrs. MILLER of Illinois, Mr. MULLIN, Mr. NORMAN, Mr. STEUBE, Mr. VAN DREW, and Mr. BISHOP of North Carolina):

H. Res. 1293. A resolution recognizing and honoring Elisjsha Dicken for his demonstration of courage, self-sacrifice, and fidelity to his fellow Americans; to the Committee on Oversight and Reform.

By Ms. DELBENE (for herself, Mr. LAHOOD, Mr. BERA, Mr. CHABOT, Mr. BLUMENAUER, and Mr. SMITH of Nebraska):

H. Res. 1294. A resolution expressing the sense of the House of Representatives that the United States should negotiate strong, inclusive, and forward-looking rules on digital trade and the digital economy with like-minded countries as part of its broader trade and economic strategy in order to ensure American values of democracy, rule of law, freedom of speech, human and worker rights, privacy, and a free and open internet are at the very core of digital governance; to the Committee on Ways and Means, and in addition to the Committee on Foreign Affairs, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned.

By Ms. FOXX:

H. Res. 1295. A resolution of inquiry directing the Secretary of Education to transmit certain documents to the House of Representatives relating to the Department of Education's cost estimates for the Secretary's waivers related to public service loan forgiveness and income-driven repayment; to the Committee on Education and Labor.

By Ms. FOXX:

H. Res. 1296. A resolution of inquiry requesting the President and directing the Secretary of Education to transmit, respectively, certain documents to the House of Representatives relating to the legal authority to forgive Federal student loan debt; to the Committee on Education and Labor.

By Mr. GOOD of Virginia (for himself, Mr. BABIN, Mrs. BOEBERT, Mr. BACON, Mr. CLYDE, Mr. CARTER of Georgia, Mrs. GREENE of Georgia, Mr. LAMALFA, Mrs. MILLER of Illinois, Mr. WITTMAN, Mr. HICE of Georgia, Mr. WEBER of Texas, Mr. DUNCAN, Mr. ROSENDALE, Mr. ADERHOLT, Mr. NORMAN, Mr. MANN, Mr. HUIZENGA, Mr. LAMBORN, Mr. MOORE of Alabama, Mr. CAWTHORN, Mr. ISSA, Mr. PALAZZO, Mr. GRIFFITH, Mr. GREEN of Tennessee, Mr. BISHOP of North Carolina, and Mrs. FLORES):

H. Res. 1297. A resolution designating the week beginning November 7, 2022, as ''National Pregnancy Center Week'' to recognize the vital role that community-supported pregnancy centers play in saving lives and serving women and men faced with difficult pregnancy decisions; to the Committee on Energy and Commerce.

By Mr. LUETKEMEYER:

H. Res. 1298. A resolution of inquiry directing the Secretary of the Treasury to transmit certain documents to the House of Representatives relating to the role of the Department of the Treasury in the Paycheck Protection Program of the Small Business Administration; to the Committee on Small Business.

By Mr. SOTO:

H. Res. 1299. A resolution honoring the Future Forum on its successful second Youth Congress and its commitment to issues that affect young people, recognizes the youth participants in Future Forum's town halls and youth congresses for their commitment to public service, and expresses its best wishes for continued success; to the Committee on House Administration.

MEMORIALS

Under clause 3 of rule XII, memorials were presented and referred as follows:

ML-218. The SPEAKER presented a memorial of the General Assembly of the State of Ohio, relative to House Resolution No. 194, urging the United States Commission on International Religious Freedom to take whatever action is necessary to address and rectify the situation described in this resolution, and consider adding Canada to the Special Watch List of countries where the government engages in violations of religious freedom; to the Committee on Foreign Affairs.

ML-219. Also, a memorial of the Senate of the State of Michigan, relative to Senate Resolution No. 154, urging the Congress of the United States to permanently extend the Tax Cuts and Jobs Act of 2017 with commensurate spending cuts to avoid increasing the federal tax burden; to the Committee on Ways and Means.

CONSTITUTIONAL AUTHORITY STATEMENT

Pursuant to clause 7 of rule XII of the Rules of the House of Representatives, the following statements are submitted regarding the specific powers granted to Congress in the Constitution to enact the accompanying bill or joint resolution.

By Mr. RODNEY DAVIS of Illinois:

H.R. 8528.

Congress has the power to enact this legislation pursuant to the following:

First Amendment ''Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.''

Fourteenth Amendment ''All citizens born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States[.]''

Fifteenth, Nineteenth, and Twenty-sixth Amendments ''The right of citizens of the United States to vote . . .''

Article I, Section 8, Clause 7 ''To establish Post Offices and post Roads;''

Article I, Section 5, Clause 1 ''Each House shall be the Judge of the Elections, Returns and Qualifications of its own Members[.]''

Article I, Section 8, Clause 17 ''To exercise exclusive Legislation in all Cases whatsoever, over such District (not exceeding ten Miles square) as may, by Cession of particular States, and the Acceptance of Congress, become the Seat of Government of the United States[.]''

Article I, Section 4, Clause 1 ''The Times, Places and Manner of holding Elections for Senators and Representatives, shall be prescribed in each State by the Legislature thereof; but the Congress may at any time by Law make or alter such Regulations, except as to the Places of choosing Senators.''

Sixteenth Amendment ''The Congress shall have the power to lay and collect taxes on incomes,''

Article I, Section 8, Clause 12 ''To raise and support Armies[.]''

Article I, Section 8, Clause 13 ''To provide and maintain a Navy[.]''

Article I, Section 8, Clause 14 ''To make Rules for the Government and Regulation of the land and naval Forces[.]''

By Ms. BONAMICI:

H.R. 8548.

Congress has the power to enact this legislation pursuant to the following:

Clause 1 of Section 8 of Article 1 of the Constitution

By Mr. COURTNEY:

H.R. 8549.

Congress has the power to enact this legislation pursuant to the following:

Article 1, Section 8

By Mr. ROY:

H.R. 8550.

Congress has the power to enact this legislation pursuant to the following:

Article 1, Section 8, Clause 18 of the United States Constitution—to make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by this Constitution in the Government of the United States, or any Department or Officer thereof.

By Mr. MCEACHIN:

H.R. 8551.

Congress has the power to enact this legislation pursuant to the following:

Article 1, Section 8, U.S. Constitution

By Mr. ALLRED:

H.R. 8552.

Congress has the power to enact this legislation pursuant to the following:

Article 1, Section 8, Clause 18

By Mrs. BICE of Oklahoma:

H.R. 8553.

Congress has the power to enact this legislation pursuant to the following:

Article 1, Section 8, Clauses 14–16.

By Mrs. BICE of Oklahoma:

H.R. 8554.

Congress has the power to enact this legislation pursuant to the following:

Article 1, Section 8. To regulate commerce with foreign nations, and among the several states, and with the Indian Tribes;

By Mr. BLUMENAUER:

H.R. 8555.

Congress has the power to enact this legislation pursuant to the following:

Clause 1 of Section 8 of Article I of the Constitution.

By Mr. BUDD:

H.R. 8556.

Congress has the power to enact this legislation pursuant to the following:

Artile 1, Section 8, Clause 3, ''To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes.''

By Mr. CARTER of Louisiana:

H.R. 8557.

Congress has the power to enact this legislation pursuant to the following:

This bill is introduced pursuant to the powers granted to Congress under the General Welfare Clause (Art. 1 Sec. 8 Cl. 1), the Commerce Clause (Art. 1 Sec. 8 Cl. 3), and the Necessary and Proper Clause (Art. 1 Sec. 8 Cl. 18).

Further, this statement of constitutional authority is made for the sole purpose of compliance with clause 7 of Rule XII of the Rules of the House of Representatives and shall have no bearing on judicial review of the accompanying bill.

By Mr. COHEN:

H.R. 8558.

Congress has the power to enact this legislation pursuant to the following:

Article 1 Section 8 of the Constitution gives Congress the power to lay and collect taxes to provide for the general welfare of the United States.

By Ms. CRAIG:

H.R. 8559.

Congress has the power to enact this legislation pursuant to the following:

Article I, Section 8 of the United States Constitution.

By Mr. CROW:

H.R. 8560.

Congress has the power to enact this legislation pursuant to the following:

Will to Fight Act of 2022

Article 1, Section 8 of the Constitution gives Congress the power to make laws that are necessary and proper to carry out its enumerated powers.

By Mr. DAVIDSON:

H.R. 8561.

Congress has the power to enact this legislation pursuant to the following:

Article I, Section 8, Clause 18: To make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by this Constitution in the Government of the United States, or in any Department or Officer thereo

By Mr. DONALDS:

H.R. 8562.

Congress has the power to enact this legislation pursuant to the following:

Article 1 Section 8

By Mr. EMMER:

H.R. 8563.

Congress has the power to enact this legislation pursuant to the following:

Article I

By Mr. GIBBS:

H.R. 8564.

Congress has the power to enact this legislation pursuant to the following:

Article I, Section 8, Clause 18, that grants Congress the power to make all laws necessary and proper for carrying out the powers vested by Congress in the Constitution of the United States or in any department or officer thereof.

By Mr. GRAVES of Missouri:

H.R. 8565.

Congress has the power to enact this legislation pursuant to the following:

Section 8 of Article I of the United States Constitution.

By Mr. HERN:

H.R. 8566.

Congress has the power to enact this legislation pursuant to the following:

Article I, Section 8, clause 1

By Mr. KHANNA:

H.R. 8567.

Congress has the power to enact this legislation pursuant to the following:

Article 1, Section 8 of the Constitution gives Congress the power to make laws that are necessary and proper to carry out its enumerated powers.

By Mr. LIEU:

H.R. 8568.

Congress has the power to enact this legislation pursuant to the following:

Article I, Section VIII

By Mrs. LURIA:

H.R. 8569.

Congress has the power to enact this legislation pursuant to the following:

Article 1, Section 8, Clause 18

By Mr. MALINOWSKI:

H.R. 8570.

Congress has the power to enact this legislation pursuant to the following:

Article I, Section 8 of the Constitution.

By Ms. MALLIOTAKIS:

H.R. 8571.

Congress has the power to enact this legislation pursuant to the following:

Article I, section 8, clause 1; and Article 1, section 8, clause 18

By Mr. SEAN PATRICK MALONEY of New York:

H.R. 8572.

Congress has the power to enact this legislation pursuant to the following:

Article I, section 8, Clauses 1 and 18 of the United States Constitution, to provide for the general welfare and make all laws necessary and proper to carry out the powers of Congress.

By Ms. MATSUI:

H.R. 8573.

Congress has the power to enact this legislation pursuant to the following:

Article 1, Section 8 of the United States Constitution

By Mr. McCAUL:

H.R. 8574.

Congress has the power to enact this legislation pursuant to the following:

Clause 3 of Section 8 of Article I of the Constitution

By Mr. MULLIN:

H.R. 8575.

Congress has the power to enact this legislation pursuant to the following:

Article I, Section 8 of the U.S. Constitution

By Mr. MURPHY of North Carolina:

H.R. 8576.

Congress has the power to enact this legislation pursuant to the following:

Article 1, Section 8

By Mr. PERLMUTTER:

H.R. 8577.

Congress has the power to enact this legislation pursuant to the following:

Article I; Section 8.

By Ms. SCHAKOWSKY:

H.R. 8578.

Congress has the power to enact this legislation pursuant to the following:

Article I, Section 8, Clause 3

The Congress shall have Power . . . To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes.

By Mr. SCHWEIKERT:

H.R. 8579.

Congress has the power to enact this legislation pursuant to the following:

Article 1, Section 8, Clause 18 of the U.S. Constitution: The Congress shall have the Power to make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by this Constitution in the Government of the United States, or in any Department or Officer thereof.

By Ms. SEWELL:

H.R. 8580.

Congress has the power to enact this legislation pursuant to the following:

Article 1, Section 8 of the U.S. Constitution.

By Ms. SEWELL:

H.R. 8581.

Congress has the power to enact this legislation pursuant to the following:

Article 1, Section 8 of the U.S. Constitution.

By Mr. SMITH of Washington:

H.R. 8582.

Congress has the power to enact this legislation pursuant to the following:

Article I Section 8.

By Mr. STAUBER:

H.R. 8583.

Congress has the power to enact this legislation pursuant to the following:

Article 4, Section 8, Clause 18: To make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by this Constitution in the Government of the United States, or in any Department or Officer thereof.

By Ms. TENNEY:

H.R. 8584.

Congress has the power to enact this legislation pursuant to the following:

Article One, Section Eight of the United States Constitution.

By Mr. TONKO:

H.R. 8585.

Congress has the power to enact this legislation pursuant to the following:

This bill is enacted pursuant to the power granted to Congress under Article I, Section 8, of the United States Constitution.

By Mr. TRONE:

H.R. 8586.

Congress has the power to enact this legislation pursuant to the following:

Article I, Section 8 of the Constitution of the United States.

By Mr. TURNER:

H.R. 8587.

Congress has the power to enact this legislation pursuant to the following:

Article I, Section VIII, Clause III of the United States Constitution

By Mr. WESTERMAN:

H.R. 8588.

Congress has the power to enact this legislation pursuant to the following:

Article 1, Section 2, Clause 18. Congress has the authority to make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by the Constitution in the Government of the United States, or in any Department or Officer thereof, including the regulation of health care for citizens for the United States

ADDITIONAL SPONSORS

Under clause 7 of rule XII, sponsors were added to public bills and resolutions, as follows:

H.R. 68: Ms. BROWNLEY.

H.R. 646: Mr. LYNCH.
H.R. 686: Mr. CARSON.
H.R. 864: Mr. GOODEN of Texas and Mr. CLINE.
H.R. 1140: Ms. BONAMICI, Mr. TAKANO, Ms. CHU, Mr. VARGAS, Mr. DEFAZIO, Mr. MALINOWSKI, Mr. DEUTCH, Mr. LIEU, and Mr. TONKO.
H.R. 1219: Mr. THOMPSON of Pennsylvania.
H.R. 1282: Mr. JOHNSON of Ohio and Mrs. LAWRENCE.
H.R. 1361: Mr. WELCH.
H.R. 1611: Ms. DAVIDS of Kansas.
H.R. 1755: Ms. LOIS FRANKEL of Florida.
H.R. 1959: Mr. MORELLE.
H.R. 2126: Ms. BROWNLEY and Ms. PRESSLEY.
H.R. 2222: Mr. CARTER of Louisiana.
H.R. 2347: Mrs. CAROLYN B. MALONEY of New York.
H.R. 2840: Mrs. HAYES.
H.R. 2974: Mr. MCEACHIN, Mr. STANTON, and Mr. FALLON.
H.R. 3089: Mrs. CAMMACK.
H.R. 3127: Ms. PORTER.
H.R. 3172: Mrs. HINSON.
H.R. 3194: Mr. RUIZ.
H.R. 3271: Ms. CHU, Ms. OMAR, Mrs. WATSON COLEMAN, and Ms. BASS.
H.R. 3342: Mr. AGUILAR.
H.R. 3483: Mr. EVANS.
H.R. 3780: Ms. SHERRILL.
H.R. 3824: Mr. MORELLE and Ms. TITUS.
H.R. 3832: Mr. SCHIFF.
H.R. 4114: Ms. CASTOR of Florida.
H.R. 4198: Ms. DEAN.
H.R. 4276: Mr. SCHIFF.
H.R. 4366: Mr. SCHIFF.
H.R. 4423: Mr. DANNY K. DAVIS of Illinois and Mrs. WATSON COLEMAN.
H.R. 4436: Mr. LAMB.
H.R. 4546: Mrs. CAROLYN B. MALONEY of New York.
H.R. 4786: Mr. ESPAILLAT.
H.R. 4924: Mr. JOHNSON of Georgia.
H.R. 4925: Mr. JOHNSON of Georgia.
H.R. 4927: Mr. JOHNSON of Georgia.
H.R. 4928: Mr. JOHNSON of Georgia.
H.R. 4929: Mr. JOHNSON of Georgia.
H.R. 4965: Mr. SARBANES.
H.R. 5514: Ms. DEAN.
H.R. 5580: Mrs. CAROLYN B. MALONEY of New York.
H.R. 5606: Mr. GRIJALVA.
H.R. 5874: Ms. HERRERA BEUTLER.
H.R. 5916: Mrs. RADEWAGEN.
H.R. 6005: Mr. BISHOP of Georgia.
H.R. 6102: Mr. LYNCH.
H.R. 6117: Ms. KAPTUR.
H.R. 6265: Mr. SHERMAN.
H.R. 6319: Mr. MURPHY of North Carolina and Mr. FALLON.
H.R. 6329: Mrs. DEMINGS.
H.R. 6394: Mr. LAMBORN.
H.R. 6437: Mr. GOMEZ and Ms. BARRAGÁN.
H.R. 6448: Ms. WEXTON.
H.R. 6455: Mr. CICILLINE and Mr. KEATING.
H.R. 6485: Mr. ROUZER.
H.R. 6498: Mr. CICILLINE.
H.R. 6519: Mr. LIEU.
H.R. 6630: Ms. WATERS.
H.R. 6631: Ms. WATERS.
H.R. 6666: Ms. BASS.
H.R. 6669: Ms. BASS.
H.R. 6683: Mr. HUFFMAN.
H.R. 6860: Ms. KUSTER and Mr. JONES.
H.R. 6934: Ms. TITUS.
H.R. 7076: Ms. MENG.
H.R. 7240: Mr. SHERMAN.
H.R. 7455: Mr. GALLEGO.
H.R. 7534: Ms. BONAMICI.
H.R. 7559: Mr. CUELLAR.
H.R. 7613: Mr. NEHLS.
H.R. 7773: Mrs. MURPHY of Florida, Mr. FITZPATRICK, Mr. PETERS, and Ms. LOIS FRANKEL of Florida.
H.R. 7775: Mrs. MURPHY of Florida, Ms. WASSERMAN SCHULTZ, Ms. LOIS FRANKEL of Florida, and Mr. PETERS.
H.R. 7847: Mr. PETERS.
H.R. 7863: Ms. BLUNT ROCHESTER and Mr. BISHOP of Georgia.
H.R. 7890: Mr. CLINE.
H.R. 7995: Mr. CUELLAR.
H.R. 8168: Mr. GUTHRIE, Mr. KIND, Mr. MEIJER, and Mr. MOULTON.
H.R. 8182: Ms. BASS, Mr. JOHNSON of Georgia, Ms. CASTOR of Florida, Mrs. CHERFILUS-MCCORMICK, and Ms. LEE of California.
H.R. 8195: Mrs. LEE of Nevada.
H.R. 8200: Mr. JOYCE of Ohio and Mr. EVANS.
H.R. 8259: Mr. BARR.
H.R. 8264: Mr. PANETTA.
H.R. 8299: Ms. KUSTER and Mr. CÁRDENAS.
H.R. 8327: Mr. VARGAS and Mrs. WATSON COLEMAN.
H.R. 8352: Mr. LOWENTHAL.
H.R. 8372: Ms. JACOBS of California and Ms. OMAR.
H.R. 8376: Mr. RASKIN.
H.R. 8421: Mr. MANN.
H.R. 8427: Mr. HORSFORD.
H.R. 8433: Mr. BROWN of Maryland.
H.R. 8446: Mr. WILSON of South Carolina, Mr. MCGOVERN, Ms. SALAZAR, and Mr. CICILLINE.
H.R. 8450: Mr. JONES and Ms. BROWNLEY.
H.R. 8460: Mrs. WATSON COLEMAN.
H.R. 8463: Mr. COSTA.
H.R. 8478: Ms. PORTER, Ms. NEWMAN, Mr. TORRES of New York, Mr. GARCÍA of Illinois, and Ms. GARCIA of Texas.
H.R. 8494: Mr. TRONE.
H.R. 8495: Ms. ADAMS.
H.R. 8496: Mr. LAMALFA, Mr. MCCLINTOCK, Mr. BUCK, Mr. ROSENDALE, Mrs. MILLER of Illinois, Mr. MOORE of Alabama, Ms. VAN DUYNE, Mr. HARRIS, and Ms. TENNEY.
H.R. 8501: Mr. KELLER.
H.R. 8511: Mr. GOHMERT.
H.R. 8514: Mr. CONNOLLY.
H.R. 8528: Mrs. RODGERS of Washington, Mr. GUEST, and Mr. SCALISE.
H.R. 8538: Mr. GOSAR.
H.J. Res. 46: Mr. KELLY of Mississippi.
H. Con. Res. 33: Mrs. FLORES.
H. Res. 404: Mr. VEASEY.
H. Res. 456: Mrs. CAROLYN B. MALONEY of New York.
H. Res. 1190: Mr. MALINOWSKI and Mr. LAMB.
H. Res. 1255: Mr. WILLIAMS of Texas, Mrs. MILLER-MEEKS, Mr. GIBBS, Mr. ISSA, Mr. BISHOP of North Carolina, Mr. BUCK, Mr. BIGGS, Ms. HERRELL, Mr. DUNN, Mr. SMITH of Nebraska, Mr. VALADAO, Mr. CAREY, Mr. THOMPSON of Pennsylvania, Mr. GOODEN of Texas, and Mr. RUTHERFORD.
H. Res. 1259: Mr. CASTRO of Texas, Mr. MEUSER, Mr. SHERMAN, Mr. JACKSON, and Mr. BURCHETT.
H. Res. 1282: Ms. WILD, Ms. ADAMS, and Ms. NORTON.
H. Res. 1286: Mr. COSTA, Mr. SEAN PATRICK MALONEY of New York, and Mr. GOMEZ.

PETITIONS, ETC.

Under clause 3 of rule XII, petitions and papers were laid on the clerk's desk and referred as follows:

PT-135. The SPEAKER presented a petition of the Council of the County of Maui, HI, relative to Resolution No. 22-155, commemorating the 50th anniversary of the Patsy Takemoto Mink Equal Opportunity in Education Act; to the Committee on Education and Labor.

PT-136. Also, a petition of the Board of Supervisors of the City and County of San Francisco, CA, relative to Resolution No. 199-22, urging President Joseph R. Biden and the federal government to utilize federal land for abortion clinics in states where abortion will be outlawed; to the Committee on Energy and Commerce.

PT-137. Also, a petition of the Hawai'i County Council, relative to Resolution No. 440-22, condemning gun violence and supporting strengthening gun laws in the United States of America; to the Committee on the Judiciary.

PT-138. Also, a petition of the Board of Supervisors of the City and County of San Francisco, CA, relative to Resolution No. 201-22, urging the United States Congress and the Biden Administration to codify Roe vs. Wade through the passage of legislation protecting Reproductive Rights; recognizing Abortion as Healthcare, and urging approaches that uplift autonomy for women and other birthing people; jointly to the Committees on Energy and Commerce and the Judiciary.

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PROCEEDINGS AND DEBATES OF THE 117th CONGRESS, SECOND SESSION

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Senate

The Senate met at 10 a.m. and was called to order by the Honorable JACKY ROSEN, a Senator from the State of Nevada.

PRAYER

The Chaplain, Dr. Barry C. Black, offered the following prayer:

Let us pray.

Eternal God, today, make our lawmakers instruments of Your grace and goodness. Teach them to be patient with themselves and others. Forgive them when they permit impatience to lead them astray, making them miss the wonder and majesty of Your purpose for our Nation and world. Lord, renew in our Senators the joy of belonging to You, as they lovingly yield to Your guidance. Direct their steps so that no duty will be left undone and no constructive words will be left unsaid.

We pray in Your great Name. Amen.

PLEDGE OF ALLEGIANCE

The Presiding Officer led the Pledge of Allegiance, as follows:

I pledge allegiance to the Flag of the United States of America, and to the Republic for which it stands, one nation under God, indivisible, with liberty and justice for all.

APPOINTMENT OF ACTING PRESIDENT PRO TEMPORE

The PRESIDING OFFICER. The clerk will please read a communication to the Senate from the President pro tempore (Mr. LEAHY).

The senior assistant legislative clerk read the following letter:

U.S. SENATE,
PRESIDENT PRO TEMPORE,
Washington, DC, July 28, 2022.

To the Senate:

Under the provisions of rule I, paragraph 3, of the Standing Rules of the Senate, I hereby appoint the Honorable JACKY ROSEN, a Senator from the State of Nevada, to perform the duties of the Chair.

PATRICK J. LEAHY,
President pro tempore.

Ms. ROSEN thereupon assumed the Chair as Acting President pro tempore.

RESERVATION OF LEADER TIME

The ACTING PRESIDENT pro tempore. Under the previous order, the leadership time is reserved.

CONCLUSION OF MORNING BUSINESS

The ACTING PRESIDENT pro tempore. Morning business is closed.

EXECUTIVE SESSION

EXECUTIVE CALENDAR

The ACTING PRESIDENT pro tempore. Under the previous order, the Senate will proceed to executive session to consider the following nomination, which the clerk will report.

The senior assistant legislative clerk read the nomination of Constance J. Milstein, of New York, to be Ambassador Extraordinary and Plenipotentiary of the United States of America to the Republic of Malta.

RECOGNITION OF THE MINORITY LEADER

The ACTING PRESIDENT pro tempore. The Republican leader is recognized.

INFLATION

Mr. MCCONNELL. Madam President, minutes ago, new data confirmed what a supermajority of Americans already knew: Democrats have plunged America into a recession. According to official statistics, the U.S. economy just shrank for the second consecutive quarter. Democrats inherited an economy that was primed for a historic comeback and promptly ran it straight into the ground.

Of course, working families didn't need any experts or statistics to tell them today's Democratic Party is a walking, talking economic disaster. Democrats' failures are causing working families deep personal pain on a daily basis.

Americans know Democrats can't be trusted. They know it every time they fill the gas tank, every time they check out at the supermarket, every time parents stay up late at the kitchen table trying to figure out which bills they can afford to pay this particular month.

Because Democrats spent us into inflation, 90 million American households say they are having a hard time meeting expenses—90 million American households. The average household in this country is having to pay an extra $5,300 and climbing every year just to tread water. Democrats' inflation is stealing more than $5,000 from the average family per year, and like a supermajority of Americans already knew before this morning, it has now driven the country into a recession.

A few years back, our colleague the senior Senator from West Virginia said: ''I don't think [that] during a time of recession, you mess with any of the taxes, or increase any taxes.'' But, alas, yesterday, Washington Democrats announced they plan to do exactly that. The Democrats who robbed American families once with inflation now want to rob the country a second time through a gigantic, gigantic job-killing tax hike.

Apparently, our Democratic colleagues do not want to be responsible for just skyrocketing prices alone. They want Americans to be faced with skyrocketing prices and higher taxes and fewer jobs all at the same time.

Democrats have outlined a giant package of huge, new job-killing tax hikes, Green New Deal craziness that will kill American energy, and prescription drug socialism that will leave us with fewer lifesaving medicines—a reckless taxing-and-spending spree that will delight the far left and hammer working families even harder.

The Democrats are going all in on a multihundred-billion-dollar tax hike

● This "bullet" symbol identifies statements or insertions which are not spoken by a Member of the Senate on the floor.

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on American jobs that experts called—listen to this—the single most economically damaging part of their entire BBB plan from last year. Years of research show the burden would be overwhelmingly passed down to workers. This one tax hike alone would kill tens of thousands of American jobs.

Democrats aren't sticking it to the fat cats. They are sticking it to the same middle-class families they have already crushed with inflation.

So Democrats want to respond to their inflation crisis by killing jobs. They also want to respond to the global energy crisis by attacking American natural gas. This reckless taxing-and-spending spree includes a massive, massive new tax on American natural gas, our country's single largest source of electricity.

We all know that when you tax something, you get less of it, and Democrats want new taxes on American natural gas wells, new taxes on American pipelines, and new taxes on American LNG exporting—higher electricity bills in the summer, higher heating bills in the winter, less reliable energy for our country, and less American energy exported to our allies abroad; doubling down—literally, doubling down—on inflation.

I have only scratched the surface of all the ways Democrats want to pick Americans' pockets. They want to pour new funding—listen to this—into IRS agents so Americans end up with more audits. IRS agents get new computers and smartphones so that American small businesses get more audits.

Also, Democrats want to drain money out of medical innovation and leave terminally ill Americans with fewer real treatments and cures as a result. The experts say this Big Government money grab will literally cost Americans their lives.

But, remember, Democrats say all of these historic tax hikes are their answer to the inflation they already created themselves.

So do you hear that, America? Democrats' answer to hurting you once is to hurt you again. Democrats say the response to Democratic inflation is Democratic tax hikes.

It wasn't enough that Democrats have already destroyed your family's purchasing power. Now they want to kill your job and tax your electricity as well.

So the natural next question is, What do Democrats want to do with all that money? What spending spree do the Democrats want so badly that they will raise taxes in the midst of a recession?

Ah, here is the answer: Green New Deal nonsense and goodies for rich coastal elites. They want these job-killing tax hikes so they can spend tens of billions of dollars on slush funds for ''green banks'' and ''environmental justice.'' They want job-killing tax hikes so they can finance new handouts for wealthy households earning up to $300,000 a year to buy an $80,000 electric car. Let me say that again: tax hikes so they can finance new handouts for wealthy households earning up to $300,000 a year to buy an $80,000 electric car. They want to subsidize rich people buying electric cars that cost more—more—than the median American household earns in an entire year.

They want to tax American natural gas. They want to tax your electricity so they can spend billions making solar and wind power look artificially ready for prime time when they are not yet—billions of dollars so Democrats can meddle in what kind of car you drive; what kind of stove, hot water heater, or clothes dryer you can afford; and how you are allowed to heat your house. This is the nonsense that Democrats are focused on—not helping you put gas in your car, not helping you afford your groceries.

They want to use the middle-class economic crisis they themselves created as an excuse to raise your taxes and ram through their Green New Deal nonsense, all of this liberal waste with no proof—none—that any of it would lead to a meaningful reduction in global emissions, much less global temperatures.

America has already been reducing our emissions considerably over the last 15 to 20 years. Countries like China have just kept on emitting more and more, totally washing out our reductions and then some. Democrats want to forcibly reengineer our entire economy out from under working Americans' feet while China keeps on emitting more and more.

Democrats are seeing American families the worst inflation in 40 years and raising them job-killing tax hikes and—and—a war on American electricity.

Our colleagues across the aisle have already completely lost Americans' trust on the economy before this reckless taxing-and-spending spree. Apparently, they now want to see how much farther they can fall.

PACT ACT

Madam President, now on a completely different matter, yesterday, the Senate should have been able to clear bipartisan legislation expanding VA benefits for millions of men and women who have served bravely in our Armed Forces. I appreciate the work our colleagues on Veterans' Affairs have done on the PACT Act. I support the substance of the bill.

But even on legislation this major and this costly, the Democratic leader tried to block the Senate from any semblance of a fair amendment process. Specifically, the senior Senator from Pennsylvania has an amendment that would ensure we do not just apply a financial bandaid to the problem but actually fix the underlying accounting issue. As written, the legislation would not just help America's veterans as designed. It would also allow Democrats to effectively spend the same money twice and enable hundreds of billions in new, unrelated spending on the discretionary side of the Federal budget.

There is no excuse why the Democratic leader should continue to block Senator TOOMEY's commonsense amendment. A bill this important and this bipartisan deserves for us to fix the accounting gimmick, and then it deserves to become law.

I suggest the absence of a quorum.

The ACTING PRESIDENT pro tempore. The clerk will call the roll.

The senior assistant legislative clerk proceeded to call the roll.

Mr. THUNE. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER (Mr. BOOKER). Without objection, it is so ordered.

INFLATION REDUCTION ACT

Mr. THUNE. Mr. President, say it isn't so, Joe.

Yesterday afternoon, Democrats, Senator MANCHIN—JOE MANCHIN from West Virginia—and their leadership announced the latest version of their Build Back Better tax-and-spending spree, which they are, bizarrely, calling the Inflation Reduction Act.

Now, I have to say that when they announced it, I think it certainly blindsided the Republicans, but I think it also blindsided, I am told, an awful lot of Democrats who didn't know or hadn't been consulted about what was going to be in this so-called Inflation Reduction Act.

Let me just tell you a few of the things the bill does. It imposes a new tax on job creators. It provides funding to the IRS to harass small businesses and nonprofits. It provides tens of billions of dollars in tax credits for Green New Deal projects and the purchase of costly electric vehicles. It extends increased government subsidies for people on ObamaCare.

Well, I think the question you have to ask is, What exactly is any of that going to do to address inflation? How are more IRS audits going to help Americans who wonder how they can continue to afford to pay more than $4 a gallon for gas? How is a new tax on businesses going to drive down the price of chicken or milk or fruits or vegetables?

As for electric vehicle tax credits, they might make purchasing an electric vehicle slightly less painful, but that is if you can afford to purchase one in the first place, especially in the midst of an inflation crisis. These tax credits are going to do nothing to cool down our overheated economy or bring inflation under control.

Then there is the fact that Democrats are attempting to help sell this bill by claiming it is going to help reduce the deficit. Well, it is not that I am not glad to see Democrats actually considering deficit reduction, even though their deficit reduction is unlikely to do much to actually reduce the deficit. Perhaps they should have thought about deficit reduction last

year when they passed a massive, partisan $1.9 trillion spending spree financed with deficit spending—a spending spree, I might add, that overheated our economy and helped push us to our current inflation crisis, which is the biggest inflation that we have seen literally in 40 years, a 40-year high.

So we found out, of course, about this bill literally hours before we learned this morning that for the second quarter in a row, our economy not only failed to experience any growth but actually contracted. And the news was not unexpected. There have been signs that the economy was weakening for a while now.

But I have to say, as I think about that news—the inflation news coupled with the fact that the economy is, in fact, contracting—that it seems really incredible that the prescription for either one of those problems in this country would be a massive new tax-and-spending bill. This bill isn't going to do anything about inflation. It is not going to do anything for economic growth. In fact, I wouldn't be surprised if this bill's new tax on businesses actually slows down parts of our economy.

It begs the question about why you would need new taxes when the taxes that are coming into the Treasury already are, frankly, at record levels. We saw year-over-year increases from the last 2 years in the amount of revenues coming into the Treasury from taxes paid by the American people, increased by 18 and 20 percent—18 percent one year and 20 percent the next year. There have been huge increases in tax revenue, in fact, so big, such big increases in tax revenue that the revenue generated by the tax owed to this country as a percentage of our gross domestic product—in other words, as a percentage of our total economy—reached the highest level since the year 2000, a 22-year high revenue to GDP. That is what has happened in the last couple of years. Revenues have been going up. Revenues coming from individual income tax returns, from business tax returns, from capital gains taxes all have gone up by double digits, and big double digits, 18 and 20 percent in the last 2 years, to the point where revenue to GDP is at the highest level that it has been literally since the year 2000, 22 years ago.

Couple that with the fact that, because of inflation, which at 9.1 percent is the highest we have seen in 40 years—you have to go back to the time when I was literally in high school and college to find a time when we saw this kind of inflation and the impact that has on American families and consumers. So the Joint Economic Committee did an analysis recently which found out that the increase in costs for an average American family year over year as a result of this level of inflation is about $9,000.

That is $9,000 more for the same basket of goods, the same basic necessities that Americans bought last year; $9,000 higher this year, roughly about $700 a month. So that is $700 a month out of an American family's budget pocket that goes toward nothing more than paying the inflation tax.

So you already have this huge tax on American families because of inflation. Now you couple that with the fact that the economy is slowing down. It is getting a little wobbly. You would think just intuitively that when you have an economy like that, the last thing you would want to do, the very worst prescription for high inflation and slow growth would be more taxes and more spending, particularly given the fact that you even have liberal Democrat economists who have said that the $1.9 trillion spending bill last year contributed to—was largely responsible for this inflation and perhaps one of the worst policy decisions ever made. Yes, that has been not just Republicans saying that; that has been liberal Democrat economists.

So in light of that situation, that sort of cluster of economic data—slow growth, or in this case, negative growth, a recession, technically speaking—now, of course, there is a question by the administration about what really constitutes a technical recession, but I think if you are an American family or an American consumer, you know, 9 percent inflation and, you know, slow growth in the economy and a concern about what the future economic outlook is going to look like for yourself and your family suggests they probably think that we are in a recession already. I think that is the experience of most Americans who are dealing with the day-to-day pocketbook issues.

So you have to ask the question, again, with higher prices already out there and concerns about the economy, why more taxes on businesses, which in most cases—and people think of taxing—always tax businesses because businesses make all this money, they are very rich and all that, but what happens typically with businesses is, obviously, they have to hire employees, so if you hit them with a big fat tax burden, typically what happens is it results in lower wages for their employees or, conversely, it could also result in higher prices for consumers, for their customers, because that typically gets passed on. In most cases, those taxes don't just get eaten or absorbed; they get passed on in the economy in the form of higher prices or lower wages, and there are all kinds of economic studies on both sides of the political equation that show that.

So the question, again, is why would you do this, particularly now, when, in fact, what we ought to be doing is focusing on those solutions that actually would reduce inflation, starting with reducing wasteful, out-of-control spending? If spending overheated the economy in the first place—and, of course, the textbook definition of inflation is too many dollars chasing too few goods. If that is what we have experienced in our economy over the past several months, then you would think you would want, if you are in a hole, to quit digging—don't spend more, don't flood the zone with more dollars out there and increase that demand and put higher pressure on prices. You would think that would be a solution.

And you would also think that, since a lot of inflation has to do with the price of energy in this country, that you would focus on reducing the price of energy rather than increasing the price of energy, and this bill does the exact opposite.

It puts taxes—taxes on energy production in this country—oil and gas—all in the name of and in the interest of trying to push people into electric vehicles.

Now, interestingly enough, when I mention electric vehicles—average cost, about $80,000. So when the suggestion is—you know, so gas prices are high, fuel prices are high, just go get an electric vehicle. Well, when you have got 9 percent inflation and a wobbly economy, the idea that an average American person out there or an average American family is going to go out and drop 80 grand on an electric vehicle seems a little bit far-fetched.

But, then, it is not just the average American family. This incentive to buy electric vehicles can be taken, experienced, enjoyed, if you will, by people making $300,000 a year—hardly the average American who is getting hit by high gas prices.

So instead of lowering energy costs by increasing more supply, opening up Federal lands, you know, approving permits to drill, approving infrastructure projects, encouraging investment in energy production in this country instead of discouraging it and pressuring companies not to invest in energy production, this has the opposite effect. It is going to tax energy. It is going to put a tax on energy.

So you are going to have higher electricity costs, higher fuel costs—I don't get it. I honestly don't get it.

Now, I understand there is a very distinct difference in this country in political philosophies and all that, and I also know—I have been here long enough to know—that when Democrats are in power, they tend to grow and expand government.

There are—I don't know, I can't think probably of a spending debate that I have been involved with in the time that I have been here where Democrats haven't wanted to spend more and Republicans haven't wanted to spend less, with one exception, and that would be defense. National security is always something that seems to be on the menu when it comes to cutting government as far as Democrats are concerned, but when it comes to just overall spending, government, the role of government, that sort of thing—and these are—I mean, they are philosophical differences, they are ideological differences, whatever you want to call them, but the fact of the matter is

that Democrats like to grow and expand government. They like more government. They like more government control.

And this achieves that in a lot of ways. Obviously, it makes people more dependent upon government, and particularly if—when it comes to, you know, what you choose to drive, pushes people more into electric vehicles. And it is government, again, picking winners and losers. But I would also suggest that one of the other provisions in the bill locks in policies that socialist countries have adopted, places in Western Europe, that fix drug prices. That is not something we have done in this country.

And everybody around here says: Well, Europe does it, why can't we do it? Well, as I recall, we left Europe for that reason. We wanted less government control. We wanted more personal freedom, coupled with individual responsibility. That was part, I think, of the defining principle of this country.

So now we are going to adopt the price-fixing policies that have been adopted in places in Europe in an attempt to try and get drug costs down at the same time we are going to be sacrificing the innovation, the investment, and the ingenuity that has resulted in so many of the great cures that we have seen in this country, and as recently as a couple years ago with COVID, which was a record time in terms of getting a vaccine out there into circulation that was actually effective in trying to keep people from getting terribly sick with that disease.

So what this, as far as I can tell, does, is it sort of socializes medicine, at least to the extent that it pertains to the pharmaceutical business. It has government fixing prices. It has us adopting the European model when it comes to drugs. It has us taxing energy production here in the United States and investing in all kinds of different green energy things.

By the way, $60 billion—$60 billion—in this proposal for ''environmental justice,'' defined, evidently, as grants to communities who are having a hard time keeping up with environmental standards in their communities, which, again, all of us—and I would argue, in my experience here, I have been one of the most forward-leaning people when it comes to renewable energy, you know, coming up with new sources of energy that, obviously, not only are good for our economy, but benefit our environment as well—but $60 billion for environmental justice, nothing for funding the police or law enforcement to keep our communities safe, which is a huge, huge crisis in this country.

So I would just argue that if ever there was a time when priorities are misplaced, this would have to be it. I just can't think of a way in which anything that is being talked about here does anything to address the fundamental economic hardship that is being experienced by tens of millions of Americans; and that is, when they go to the gas station to fill up their tank with gas, or a farmer who needs diesel, which has literally doubled in cost, in price, since the President took office, or going to the grocery store, where all these inflation and energy costs and everything else get passed on—everything has gone up.

Groceries in this country, on average, up 12 percent, utility gas up 38 percent, gasoline up 60 percent. And that is just year over year. If you go since the time the President took office, the price of gasoline has almost doubled. It is 90 percent higher now than it was when the President took office.

And so you have got all this economic bad data and hardship and—you know, the American people are experiencing, and so just kind of out of nowhere, really—I mean, there has been some discussion about this, as we all know, over the past year or so, but everybody, I think, kind of concluded when we got the inflation numbers last month at 9.1 percent, a 40-year high, that: Let's cool it down a little bit. Let's cool our jets here, and let's just see what is going to happen with the economy before we do anything rash.

Well, you can't say that $1 trillion in spending and taxes isn't pretty rash, especially when you try and drive it through on a party line vote, the same way that the $2 trillion in spending was done last year, where you had, again, all these warnings, and not just Republicans. I was saying this, but I am not unique. There were lots of Democrat economists who were suggesting at the time that that kind of spending would do nothing but overheat the economy, overstimulate the economy, and you get too many dollars chasing too few goods and leading to inflationary impacts, which is ultimately what happened.

So here we are, with 9 percent inflation, two quarters now of negative economic growth, negative GDP, and Democrats saying: OK. Let's raise taxes and let's raise taxes a bunch, at a time when revenues to GDP are at their highest level since the year 2000, and when we have had two successive years now, year over year, of revenue growth, 18 percent and 20 percent.

Surely—surely—the problem here can't be not enough revenue. The issue, I think, is—and it comes back to my fundamental point in the first place. You want to grow government, you want to expand government, you want to have $60 billion—$60 billion—going to environmental justice and zero going to funding the police or addressing the issues of law enforcement, crime in our communities around this country, or maybe putting some money toward the border, addressing another out-of-control problem that I can see—you can point back directly to policy decisions made by this administration and the ultimate consequence and result that we have seen, the outcome that we have seen.

But this is going to be done on a party line basis. This is going to be done with Democrat-only votes and, again, sort of came out of nowhere.

So I say: Say it ain't so, Joe. I wish I had a better story here, but the fact of the matter is, this will be done with zero consultation with Republicans, and what it appears like very little, if any, consultation with Democrats. Sounds like it was a deal that was cut by basically two people, and it is going to be shoved through on a party line vote, 51 votes here in the U.S. Senate at a time when we have got historic issues related to our economy which are impacting American families in a very direct and real way, starting with the fact that they are now putting more of their purchases on their credit cards, they are dipping into retirement savings to be able to keep up with just the daily cost of living.

We have already put—I say ''we,'' not we, but if you think about it, in some ways, the policies that went through here last year, the 1.9 trillion-dollar, party line spending bill, led to a lot of this inflation.

So the American people right now, average family, according to the Joint Economic Committee, which is a bipartisan committee here in the Senate, says that it is costing the average family in this country $9,000 more this year than it did last year for the same basic necessities, for the same basket of goods. So they have already seen a $9,000 tax, and now they are being told that there is going to be a big tax increase. Oh, yes, it is going to hit corporations, but don't think for a minute that those costs don't get passed on in the form of higher costs to consumers and lower wages to employees, because these things don't happen in a vacuum. There are decisions, and there are effects that happen as a result of those decisions.

I hope my Democrat colleagues will think better of this. I can't think, honestly, of a time where there hasn't been a worse prescription for what ails our economy and ails our country than what is being proposed here in the form of more taxes, more spending, more government control, and more pain and economic hardship for the American people.

I yield the floor.

The PRESIDING OFFICER. The Senator from Delaware.

RECYCLING AND COMPOSTING ACCOUNTABILITY ACT

Mr. CARPER. Mr. President, I rise, along with Senator CAPITO, today to say a few words on behalf of S. 3742, Recycling Infrastructure and Accessibility Act of 2022, and S. 3743, the Recycling Composting Accountability Act.

Senator CAPITO and I have the pleasure of leading the Senate Environment and Public Works Committee. With the legislation that we are about to discuss here, along with Senator BOOZMAN—Senator BOOZMAN is on his way. We are all a part of the Recycling Caucus in the U.S. Senate. We work with our

staffs and others outside of this body in order to make possible this legislation, to debate it, to report it. And if I am not mistaken, Senator CAPITO reported it unanimously out of our committee, as we do with so much legislation.

These bills were introduced by Senator CAPITO and myself and Senator BOOZMAN. As an avid recycler and composter, for a long time I have long believed in environmental stewardship. After all, we have a moral duty to leave behind a cleaner, healthier planet for our children.

Senator CAPITO and I are both born in West Virginia. My sister and I grew up along Beaver Creek, right outside of Beckley. My dad used to take me and my grandfather fishing and hunting, even at a young age, along the New River and other parts of Raleigh County. One of the things that my dad and my grandfather always made clear to me was that if we are out in a boat and there was trash or something in the water or there was something that could be recycled, to pull it out of the water and to put it in something we were carrying and take it home. The idea was to try to leave our State—West Virginia then—better, better than we found it. So from a very early age in West Virginia, I really had those values instilled in me. And they still are. We instilled them in our sons too.

But we have a moral obligation to leave behind a cleaner, healthier planet for our children. There are many ways to meet that moral obligation. One of those is to make sure that the products that can be recycled, we recycle them. We don't have to landfill them. We can actually address the climate change in a very positive way but especially with respect to aluminum cans and things like that that we recycle.

I wish I could stand here today to say our recycling rate in Delaware is 100 percent, West Virginia is 100 percent, or the country is 100 percent; it is not. The recycling rate in our country is something like 35 percent. It is like getting a grade in school. If you get a 35 on a paper or test, that is a failing grade. With respect to recycling, unfortunately, we are racking up failing grades year after year after year, and we ought to do something about it. As it turns out, we can. Part of that doing something about it is the legislation before us today.

We have to do more when it comes to improving our Nation's recycling and our composting efforts. These bills would take action to address several of the challenges facing America's recycling efforts.

One of the challenges that we face is the availability of good data. That might sound strange, but it is true. This past November, for example, the Environmental Protection Agency, though, released its first-ever National Recycling Strategy. Now, that is kind of late to the game, but it is better to be late to the game than not to be there at all. It turns out it is a good document. It is a document that reflects input that we provided, our staffs provided, others on our committee, and across the country provided. And to the EPA's credit, they accepted that input, and they actually did something with it. So it is reflected in the National Recycling Strategy that was promulgated.

The document offers a transformative vision for shrinking our Nation's waste management efforts, and it also highlights the need for greater standardization around data collection.

To address this, Senator BOOZMAN and I developed the Recycling and Composting Accountability Act. Senator BOOZMAN, myself, Senator CAPITO, and others are part of the Recycling Caucus here in the Senate, a bipartisan group that focuses on how do we promote and encourage recycling, not just on Capitol Hill, not just in the District of Columbia, not just on the east coast, not just in West Virginia but across the country from coast to coast.

Our legislation, the Recycling and Composting Accountability Act, would improve EPA's ability to gather data on our Nation's recycling systems and explore opportunities for implementing a national composting strategy.

Another area where we can improve is by increasing access to recycling. Many Americans in disadvantaged communities want to recycle, they want to compost, but they are unable to do so. That is because they live in neighborhoods that lack curbside pickup, bottle return, and other necessary recycling infrastructure.

Senator CAPITO's Recycling Infrastructure and Accessibility Act would help address this by creating a pilot program at EPA to improve recycling services in underserved areas. This legislation would bring many communities into the recycling world, including those in urban and suburban areas, while also protecting our environment.

I commend Senator CAPITO for her work and her leadership on this bill. I want to commend her staff and my staff, led by Mary Frances Repko, who is our staff director, and Adam on the other side of the aisle. Members don't do this by themselves, as we know, and we are really blessed with terrific staff who help us put these provisions together.

I commend Senator CAPITO heartily for her work and her leadership on this legislation, her support of the legislation Senator BOOZMAN and I have offered.

I want to work with her to make sure that this bill helps jump-start recycling in communities with the greatest need, especially those who have been historically left behind, and there are too many of those.

Both of these bills that we will have an opportunity to consider here today are the result of a true collaboration and reflect a substantial amount of bipartisan efforts dedicated to explore our Nation's recycling and composting challenges.

I know a lot of people, if you watch the news, whether it is the television or on the radio, newspapers, you read online, they think all we do here is fight with one another; that we never find anything like common ground on important issues like the one we are talking about right now. The committee that Senator CAPITO and I are privileged to lead actually reports out important legislation, including bipartisan infrastructure legislation, all kinds of issues that enjoy bipartisan support, unanimous bipartisan support.

S. 3743

Mr. CARPER. So with that, as if in legislative session, I ask unanimous consent that the Senate proceed to the immediate consideration of Calendar No. 358, S. 3743.

The PRESIDING OFFICER. The clerk will report the bill by title.

The bill clerk read as follows:

A bill (S. 3743) to require the Administrator of the Environmental Protection Agency to carry out certain activities to improve recycling and composting programs in the United States, and for other purposes.

There being no objection, the Senate proceeded to consider the bill, which had been reported from the Committee on Environment and Public Works, with an amendment to strike all after the enacting clause and insert in lieu thereof the following:

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Recycling and Composting Accountability Act''.

SEC. 2. DEFINITIONS.

(a) IN GENERAL.—In this Act:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the Environmental Protection Agency.

(2) CIRCULAR MARKET.—The term ''circular market'' means a market that utilizes industrial processes and economic activities to enable post-industrial and post-consumer materials used in those processes and activities to maintain their highest values for as long as possible.

(3) COMPOST.—The term ''compost'' means a product that—

(A) is manufactured through the controlled aerobic, biological decomposition of biodegradable materials;

(B) has been subjected to medium and high temperature organisms, which—

(i) significantly reduce the viability of pathogens and weed seeds; and

(ii) stabilize carbon in the product such that the product is beneficial to plant growth; and

(C) is typically used as a soil amendment, but may also contribute plant nutrients.

(4) COMPOSTABLE MATERIAL.—The term ''compostable material'' means material that is a feedstock for creating compost, including—

(A) wood;

(B) agricultural crops;

(C) paper;

(D) certified compostable products associated with organic waste;

(E) other organic plant material;

(F) marine products;

(G) organic waste, including food waste and yard waste; and

(H) such other material that is composed of biomass that can be continually replenished or renewed, as determined by the Administrator.

(5) COMPOSTING FACILITY.—The term ''composting facility'' means a location, structure, or device that transforms compostable materials into compost.

(6) INDIAN TRIBE.—The term ''Indian Tribe'' has the meaning given the term in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5304).

(7) MATERIALS RECOVERY FACILITY.—

(A) IN GENERAL.—The term ''materials recovery facility'' means a dedicated facility where primarily residential recyclable materials, which are diverted from disposal by the generator and collected separately from municipal solid waste, are mechanically or manually sorted into commodities for further processing into specification-grade commodities for sale to end users.

(B) EXCLUSION.—The term ''materials recovery facility'' does not include a solid waste management facility that may process municipal solid waste to remove recyclable materials.

(8) RECYCLABLE MATERIAL.—The term ''recyclable material'' means a material that is obsolete, previously used, off-specification, surplus, or incidentally produced for processing into a specification-grade commodity for which a circular market currently exists or is being developed.

(9) RECYCLING.—The term ''recycling'' means the series of activities—

(A) during which recyclable materials are processed into specification-grade commodities, and consumed as raw-material feedstock, in lieu of virgin materials, in the manufacturing of new products;

(B) that may include sorting, collection, processing, and brokering; and

(C) that result in subsequent consumption by a materials manufacturer, including for the manufacturing of new products.

(10) STATE.—The term ''State'' has the meaning given the term in section 1004 of the Solid Waste Disposal Act (42 U.S.C. 6903).

(b) DEFINITION OF PROCESSING.—In paragraphs (7), (8), and (9) of subsection (a), the term ''processing'' means any mechanical, manual, or other method that—

(1) transforms a recyclable material into a specification-grade commodity; and

(2) may occur in multiple steps, with different steps, including sorting, occurring at different locations.

SEC. 3. SENSE OF CONGRESS.

It is the sense of Congress that—

(1) recycling and composting conserve resources, protect the environment, and are important to the United States economy;

(2) the United States recycling and composting infrastructure encompass each of the entities that collect, process, broker, and consume recyclable materials and compostable materials sourced from commercial, industrial, institutional, and residential sources;

(3) the residential segment of the United States recycling and composting infrastructure is facing challenges from—

(A) confusion over what materials are recyclable materials or compostable materials;

(B) reduced export markets;

(C) growing, but still limited, domestic end markets; and

(D) an ever-changing and heterogeneous supply stream;

(4) in some areas, recycling and composting infrastructure is in need of revitalization; and

(5) in an effort to address those challenges, the United States must use a combination of tactics to improve recycling and composting in the United States.

SEC. 4. REPORT ON COMPOSTING INFRASTRUCTURE CAPABILITIES.

The Administrator, in consultation with States, units of local government, and Indian Tribes, shall—

(1) prepare a report describing the capability of the United States to implement a national composting strategy for compostable materials for the purposes of reducing contamination rates for recycling, including—

(A) an evaluation of existing Federal, State, and local laws that may present barriers to implementation of a national composting strategy;

(B)(i) an evaluation of existing composting programs of States, units of local government, and Indian Tribes; and

(ii) a description of best practices based on those programs;

(C) an evaluation of existing composting infrastructure in States, units of local government, and Indian Tribes for the purposes of estimating cost and approximate land needed to expand composting programs; and

(D) a study of the practices of manufacturers and companies that are moving to using compostable packaging and food service ware for the purpose of making the composting process the end-of-life use of those products; and

(2) not later than 1 year after the date of enactment of this Act, submit the report prepared under paragraph (1) to Congress.

SEC. 5. REPORT ON FEDERAL AGENCY RECYCLING PRACTICES.

Not later than 1 year after the date of enactment of this Act, and annually thereafter, the Comptroller General of the United States, in consultation with the Administrator, shall make publicly available a report describing—

(1) the total annual recycling and composting rates reported by all Federal agencies;

(2) the total annual percentage of products containing recyclable material, compostable material, or recovered materials purchased by all Federal agencies, including—

(A) the total quantity of procured products containing recyclable material or recovered materials listed in the comprehensive procurement guidelines published under section 6002(e) of the Solid Waste Disposal Act (42 U.S.C. 6962(e)); and

(B) the total quantity of compostable material purchased;

(3) recommendations for updating—

(A) the comprehensive procurement guidelines published under section 6002(e) of the Solid Waste Disposal Act (42 U.S.C. 6962(e)); and

(B) the environmentally preferable purchasing program established under section 6604(b)(11) of the Pollution Prevention Act of 1990 (42 U.S.C. 13103(b)(11)); and

(4) the activities of each Federal agency that promote recycling or composting.

SEC. 6. IMPROVING DATA AND REPORTING.

(a) INVENTORY OF MATERIALS RECOVERY FACILITIES.—Not later than 1 year after the date of enactment of this Act, and biannually thereafter, the Administrator, in consultation with States, units of local government, and Indian Tribes, shall—

(1) prepare an inventory of public and private materials recovery facilities in the United States, including—

(A) the number of materials recovery facilities in each unit of local government in each State; and

(B) a description of the materials that each materials recovery facility can process, including—

(i) in the case of plastic, a description of—

(I) the types of accepted resin, if applicable; and

(II) the packaging or product format, such as a jug, a carton, or film;

(ii) food packaging and service ware, such as a bottle, cutlery, or a cup;

(iii) paper;

(iv) aluminum, such as an aluminum beverage can, food can, aerosol can, or foil;

(v) steel, such as a steel food or aerosol can;

(vi) other scrap metal;

(vii) glass; or

(viii) any other material not described in any of clauses (i) through (vii) that a materials recovery facility can process; and

(2) submit the inventory prepared under paragraph (1) to Congress.

(b) ESTABLISHMENT OF A COMPREHENSIVE BASELINE OF DATA FOR THE UNITED STATES RECYCLING SYSTEM.—The Administrator, in consultation with States, units of local government, and Indian Tribes, shall determine, with respect to the United States—

(1) the number of community curbside recycling and composting programs;

(2) the number of community drop-off recycling and composting programs;

(3) the types and forms of materials accepted by each community curbside recycling, drop-off recycling, or composting program;

(4) the number of individuals with access to recycling and composting services to at least the extent of access to disposal services;

(5) the number of individuals with barriers to accessing recycling and composting services to at least the extent of access to disposal services;

(6) the inbound contamination and capture rates of community curbside recycling, drop-off recycling, or composting programs;

(7) where applicable, other available recycling or composting programs within a community, including store drop-offs; and

(8) the average cost to States, units of local government, and Indian Tribes of recycling and composting programs.

(c) STANDARDIZATION OF RECYCLING REPORTING RATES.—

(1) COLLECTION OF RATES.—

(A) IN GENERAL.—The Administrator may use amounts made available under section 9 to biannually collect from each State the nationally standardized rate of recyclable materials in that State that have been successfully diverted from the waste stream and brought to a materials recovery facility or composting facility.

(B) CONFIDENTIAL OR PROPRIETARY BUSINESS INFORMATION.—Information collected under subparagraph (A) shall not include any confidential or proprietary business information, as determined by the Administrator.

(2) USE.—Using amounts made available under section 9, the Administrator may use the rates collected under paragraph (1) to further assist States, units of local government, and Indian Tribes—

(A) to reduce the overall waste produced by the States and units of local government; and

(B) to increase recycling and composting rates.

(d) REPORT ON END MARKETS.—

(1) IN GENERAL.—The Administrator, in consultation with States, units of local government, and Indian Tribes, shall—

(A) provide an update to the report submitted under section 306 of the Save Our Seas 2.0 Act (Public Law 116–224; 134 Stat. 1096) to include an addendum on the end-market sale of all recyclable materials, in addition to recycled plastics as described in that section, from materials recovery facilities that process recyclable materials collected from households and publicly available recyclable materials drop-off centers, including—

(i) the total, in dollars per ton, domestic sales of bales of recyclable materials; and

(ii) the total, in dollars per ton, international sales of bales of recyclable materials;

(B) prepare a report on the end-market sale of compost from all compostable materials collected from households and publicly available compost drop-off centers, including the total, in dollars per ton, of domestic sales of compostable materials; and

(C) not later than 1 year after the date of enactment of this Act, submit to Congress the update to the report prepared under subparagraph (A) and the report prepared under subparagraph (B).

(2) CONFIDENTIAL OR PROPRIETARY BUSINESS INFORMATION.—Information collected under subparagraphs (A) and (B) of paragraph (1) shall not include any confidential or proprietary business information, as determined by the Administrator.

SEC. 7. STUDY ON THE DIVERSION OF RECYCLABLE MATERIALS FROM A CIRCULAR MARKET.

(a) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Administrator shall develop a metric for determining the proportion of recyclable materials in commercial and municipal waste streams that are being diverted from a circular market.

(b) STUDY; REPORT.—Not later than 1 year after the development of a metric under subsection (a), the Administrator shall conduct a study of, and submit to Congress a report on, the proportion of recyclable materials in commercial and municipal waste streams that, during each of the 10 calendar years preceding the year of submission of the report, were diverted from a circular market.

(c) DATA.—The report under subsection (b) shall provide data on specific recyclable materials, including aluminum, plastics, paper and paperboard, textiles, and glass, that were prevented from remaining in a circular market through disposal or elimination, and to what use those specific recyclable materials were lost.

(d) EVALUATION.—The report under subsection (b) shall include an evaluation of whether the establishment or improvement of recycling programs would—

(1) improve recycling rates; or

(2) reduce the quantity of recyclable materials being unutilized in a circular market.

SEC. 8. VOLUNTARY GUIDELINES.

The Administrator shall—

(1) in consultation with States, units of local government, and Indian Tribes, develop, based on the results of the studies, reports, inventory, and data determined under sections 4 through 7, and provide to States, units of local government, and Indian Tribes best practices that the States, units of local government, and Indian Tribes may use to enhance recycling and composting, including—

(A) labeling techniques for containers of waste, compostable materials, and recycling, with the goal of creating consistent, readily available, and understandable labeling across jurisdictions;

(B) pamphlets or other literature readily available to constituents;

(C) primary and secondary school educational resources on recycling;

(D) web and media-based campaigns; and

(E) guidance for the labeling of recyclable materials and compostable materials that minimizes contamination and diversion of those materials from waste streams toward recycling and composting systems; and

(2) not later than 2 years after the date of enactment of this Act, submit to Congress a report describing the best practices developed under paragraph (1).

SEC. 9. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Administrator such sums as are necessary to carry out this Act for each fiscal year.

Mr. CARPER. I ask unanimous consent that the committee-reported substitute amendment be considered and agreed to; that the bill, as amended, be considered read a third time and passed; and that the motion to reconsider be considered made and laid upon the table.

The PRESIDING OFFICER. Is there objection?

Without objection, it is so ordered.

The committee-reported amendment in the nature of a substitute was agreed to.

The bill (S. 3743), as amended, was ordered to be engrossed for a third reading, was read the third time, and passed.

The PRESIDING OFFICER. The Senator from West Virginia.

RECYCLING INFRASTRUCTURE AND ACCESSIBILITY ACT OF 2022

Mrs. CAPITO. Mr. President, I feel like the Senator from West Virginia right now.

I am very glad that we are going to be passing these two recycling bills.

I will just briefly say I am the cosponsor of the bipartisan Recycling and Infrastructure Accessibility Act. Sometimes the simplest things that we can do have such great impacts, and I think that is what we are going to see here today.

In rural America, we don't have the accessibility to recycling and the infrastructure that we need, and that is the point of my bill. It helps us, obviously, protect our environment, supports jobs, and it helps our municipalities and others be able to sustain these.

This is a pilot program that would give Federal support for recycling infrastructure projects, such as transfer stations and dropoff facilities. That is the difficulty; you can't have one in every small town. You need to have a spoke-and-hub sort of system, and that is what this is looking at.

I will speed it up here. I want to thank all the different organizations and groups that have helped: The National Water Resources Association, the Plastics Industry Association, the American Beverage Association, our associated staffs, and particularly the chair of the full committee. He has been just a champion here in working on the recycling bills. He is the main sponsor of the Recycling Composting Accountability Act, of which I am also a cosponsor.

These will fill great and important data gaps. These are recycling bills that were reported out by voice votes so we have unanimous consent by our committee. I am glad that our colleagues have agreed to pass them.

S. 3742

So I will move on and say, as if in legislative session, I ask unanimous consent that the Senate proceed to the immediate consideration of Calendar No. 357, S. 3742.

The PRESIDING OFFICER (Mr. SCHATZ). The clerk will report the bill by title.

The bill clerk read as follows:

A bill (S. 3742) to establish a pilot grant program to improve recycling accessibility, and for other purposes.

There being no objection, the Senate proceeded to consider the bill.

Mrs. CAPITO. I ask unanimous consent that the bill be considered read a third time and passed and that the motion to reconsider be considered made and laid upon the table.

The PRESIDING OFFICER. Is there objection?

Without objection, it is so ordered.

The bill (S. 3742) was ordered to be engrossed for a third reading, was read the third time, and passed as follows:

S. 3742

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Recycling Infrastructure and Accessibility Act of 2022''.

SEC. 2. RECYCLING INFRASTRUCTURE AND ACCESSIBILITY PROGRAM.

(a) DEFINITIONS.—In this section:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the Environmental Protection Agency.

(2) CURBSIDE RECYCLING.—The term ''curbside recycling'' means the process by which residential recyclable materials are picked up curbside.

(3) ELIGIBLE ENTITY.—The term ''eligible entity'' means—

(A) a State (as defined in section 1004 of the Solid Waste Disposal Act (42 U.S.C. 6903));

(B) a unit of local government;

(C) an Indian Tribe; and

(D) a public-private partnership.

(4) INDIAN TRIBE.—The term ''Indian Tribe'' has the meaning given the term in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5304).

(5) MATERIALS RECOVERY FACILITY.—

(A) IN GENERAL.—The term ''materials recovery facility'' means a recycling facility where primarily residential recyclables, which are diverted from disposal by a generator and collected separately from municipal solid waste, are mechanically or manually sorted into commodities for further processing into specification-grade commodities for sale to end users.

(B) EXCLUSION.—The term ''materials recovery facility'' does not include a solid waste management facility that may process municipal solid waste to remove recyclable materials.

(6) PILOT GRANT PROGRAM.—The term ''pilot grant program'' means the Recycling Infrastructure and Accessibility Program established under subsection (b).

(7) RECYCLABLE MATERIAL.—The term ''recyclable material'' means obsolete, previously used, off-specification, surplus, or incidentally produced material for processing into a specification-grade commodity for which a market exists.

(8) TRANSFER STATION.—The term ''transfer station'' means a facility that—

(A) receives and consolidates recyclable material from curbside recycling or drop-off facilities; and

(B) loads the recyclable material onto tractor trailers, railcars, or barges for transport to a distant materials recovery facility or another recycling-related facility.

(9) UNDERSERVED COMMUNITY.—The term ''underserved community'' means a community, including an unincorporated area, without access to full recycling services because—

(A) transportation, distance, or other reasons render utilization of available processing capacity at an existing materials recovery facility cost prohibitive; or

(B) the processing capacity of an existing materials recovery facility is insufficient to manage the volume of recyclable materials produced by that community.

(b) ESTABLISHMENT.—Not later than 18 months after the date of enactment of this Act, the Administrator shall establish a pilot grant program, to be known as the ''Recycling Infrastructure and Accessibility Program'', to award grants, on a competitive basis, to eligible entities to improve recycling accessibility in a community or communities within the same geographic area.

(c) GOAL.—The goal of the pilot grant program is to fund eligible projects that will significantly improve accessibility to recycling systems through investments in infrastructure in underserved communities through the use of a hub-and-spoke model for recycling infrastructure development.

(d) APPLICATIONS.—To be eligible to receive a grant under the pilot grant program, an eligible entity shall submit to the Administrator an application at such time, in such manner, and containing such information as the Administrator may require.

(e) CONSIDERATIONS.—In selecting eligible entities to receive a grant under the pilot grant program, the Administrator shall consider—

(1) whether the community or communities in which the eligible entity is seeking to carry out a proposed project has curbside recycling;

(2) whether the proposed project of the eligible entity will improve accessibility to recycling services in a single underserved community or multiple underserved communities; and

(3) if the eligible entity is a public-private partnership, the financial health of the private entity seeking to enter into that public-private partnership.

(f) PRIORITY.—In selecting eligible entities to receive a grant under the pilot grant program, the Administrator shall give priority to eligible entities seeking to carry out a proposed project in a community in which there is not more than 1 materials recovery facility within a 75-mile radius of that community.

(g) USE OF FUNDS.—An eligible entity awarded a grant under the pilot grant program may use the grant funds for projects to improve recycling accessibility in communities, including in underserved communities, by—

(1) increasing the number of transfer stations;

(2) expanding curbside recycling collection programs where appropriate; and

(3) leveraging public-private partnerships to reduce the costs associated with collecting and transporting recyclable materials in underserved communities.

(h) PROHIBITION ON USE OF FUNDS.—An eligible entity awarded a grant under the pilot grant program may not use the grant funds for projects relating to recycling education programs.

(i) MINIMUM AND MAXIMUM GRANT AMOUNT.—A grant awarded to an eligible entity under the pilot grant program shall be in an amount—

(1) not less than $500,000; and

(2) not more than $15,000,000.

(j) SET-ASIDE.—The Administrator shall set aside not less than 70 percent of the amounts made available to carry out the pilot grant program for each fiscal year to award grants to eligible entities to carry out a proposed project or program in a single underserved community or multiple underserved communities.

(k) FEDERAL SHARE.—

(1) IN GENERAL.—Subject to paragraph (2), the Federal share of the cost of a project or program carried out by an eligible entity using grant funds shall be not more than 90 percent.

(2) WAIVER.—The Administrator may waive the Federal share requirement under paragraph (1) if the Administrator determines that an eligible entity would experience significant financial hardship as a result of that requirement.

(l) REPORT.—Not later than 2 years after the date on which the first grant is awarded under the pilot grant program, the Administrator shall submit to Congress a report describing the implementation of the pilot grant program, which shall include—

(1) a list of eligible entities that have received a grant under the pilot grant program;

(2) the actions taken by each eligible entity that received a grant under the pilot grant program to improve recycling accessibility with grant funds; and

(3) to the extent information is available, a description of how grant funds received under the pilot grant program improved recycling rates in each community in which a project or program was carried out under the pilot grant program.

(m) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There are authorized to be appropriated to the Administrator to carry out the pilot grant program such sums as may be necessary for each of fiscal years 2023 through 2027, to remain available until expended.

(2) ADMINISTRATIVE COSTS AND TECHNICAL ASSISTANCE.—Of the amounts made available under paragraph (1), the Administrator may use up to 5 percent—

(A) for administrative costs relating to carrying out the pilot grant program; and

(B) to provide technical assistance to eligible entities applying for a grant under the pilot grant program.

Mrs. CAPITO. Thank you.

Mr. CARPER. Mr. President, I ask that Senator BOOZMAN, who is a charter member of the Senate Recycling Caucus, be recognized to speak on behalf of these measures, which he has played a key role on.

The PRESIDING OFFICER. Without objection, it is so ordered.

The Senator from Arkansas.

Mr. BOOZMAN. Thank you, Mr. President, and thank you, Mr. Chairman and Ranking Member CAPITO, for your leadership in that this area.

As has been said and should be said many times more, we appreciate the great work of our staffs in getting this done.

The other thing that is so important is the answers to our problems need to come from the ground up. Through the Recycling Caucus and hearings, and the list goes on and on, this is where those answers were generated—from the people who are out fighting the battles.

We talk a lot about the lack of bipartisanship and things. This is a great example of people working together for the common good up here.

It is great for the environment in the sense that recycling is not just gathering. We don't want to have a situation continuing, like we do now, where so much of that that is gathered actually winds up in the landfill eventually.

Conservation is the low-hanging fruit. You know, it makes all the sense in the world to reuse things. It creates a situation where we lessen the dependence on landfills, things like that. And then, again, in this age of globalization and things, we really do need to use the resources that we have and then continue to use the resources as we go forward.

So we are talking about jobs. We are talking about the environment. And, for that reason, I very much support and appreciate, as I said, the leadership of the chairman and the ranking member for their great effort in pushing this forward.

And, with that, I yield the floor to Senator CARDIN—Mr. Chairman.

I yield the floor.

Mr. CARPER. Mr. President, I just want to say again my thanks to—I think I am pretty rabid on recycling, but this fellow from Arkansas is right there with me. I appreciate very much both your leadership and Senator CAPITO's.

I think we are going to shift gears here. We just passed two very significant recycling bills for our country. This is something that I am thrilled about, and I know Senator CAPITO is as well. And we are going to shift gears and take some time to consider other important legislation: the Water Resources Development Act.

Senator CARDIN, who chairs the subcommittee, has jurisdiction on the water resources bill. I think he is prepared to speak.

I think I need to make a unanimous consent request before we do that.

LEGISLATIVE SESSION

WATER RESOURCES DEVELOPMENT ACT OF 2022

Mr. CARPER. Mr. President, I ask unanimous consent that the Senate proceed to legislative session and consider H.R. 7776, as provided for under the previous order.

The PRESIDING OFFICER. Without objection, it is so ordered.

The clerk will report the bill by title.

The bill clerk read as follows:

A bill (H.R. 7776) to provide for improvements to the rivers and harbors of the United States, to provide for the conservation and development of water and related resources, and for other purposes.

The PRESIDING OFFICER. Under the previous order, amendment No. 5140 is agreed to.

There will now be up to 1 hour of debate equally divided in the usual form.

The amendment (No. 5140) in the nature of a substitute was agreed to.

(The amendment is printed in the RECORD of July 20, 2022, under ''Text of Amendments.'')

Mr. CARPER. Mr. President, with that, I would please yield to the chairman of the subcommittee that has jurisdiction over the Water Resources Development Act, BEN CARDIN.

The PRESIDING OFFICER. The Senator from Maryland.

Mr. CARDIN. Mr. President, let me thank Chairman CARPER and Ranking Member CAPITO and my counterpart on the Subcommittee on Infrastructure, Senator CRAMER, for bringing us to this moment where we will soon be voting on the Water Resources Development Act.

I must tell you, this is an extremely important bill that gives the Army Corps the authorization they need to advance critically important water projects in our country.

Mr. President, this was passed by a unanimous vote in the Environment and Public Works Committee. Due to the leadership of Senator CARPER and Senator CAPITO, this bill involves the input of all the members of our committee and—dare I say—all the Members of the U.S. Senate. So I want to thank them for getting this bill to the point where we will be able to vote on it this afternoon.

This bill is truly bipartisan. It incorporates the input from every single Senator and reflects priorities for our

water resources in States and communities across the country. It provides crucial authority for projects and guidance for the Army Corps of Engineers to engineer better solutions to our Nation's toughest water infrastructure supply and quality challenges.

The work of the Army Corps of Engineers is vital for keeping commerce flowing in our waterways, for restoring aquatic ecosystems, and for helping communities deal with the risks and impacts of flooding.

In my State of Maryland, we have challenges in all of these areas, and we are partnering with the Army Corps to address them. The Port of Baltimore, for example, is critical in our national supply chains and an economic engine for the State of Maryland.

To enhance the port's ability to serve commerce and provide safe navigation, the Army Corps is moving forward with a Mid-Chesapeake Bay Island Ecosystem Restoration Project, or Mid-Bay, which will put dredged material to beneficial use restoring our ecosystems in the Chesapeake Bay, a major win-win for commerce and the environment. Here we are taking dredged materials and using it for environmental restoration, providing a very popular place to put dredged material so we can keep our harbors and our channels dredged but we also can restore our environment at the same time.

A project the size of Mid-Bay also has the opportunity to benefit smaller channels along the Chesapeake Bay. In Maryland, we have dozens and dozens of smaller channels that support economic activity, recreational opportunities, and are an integral part of the identity of the small communities they serve, but these channels have not received the maintenance that they require.

I am proud that this year's WRDA bill provides the Corps with new authorization to address these underserved harbors and channels, directing the Corps to take a closer look at them according to the significance to their community and not just based on the total amount of cargo they move. This is going to help many of our communities around America.

In doing so, this bill adds new perspective to the Army Corps' thinking so that the Chesapeake Bay is fully understood not just as an artery for commerce but as a national environmental treasure that is home to living waterfronts that support a variety of community, economic, and nature-based activities. The WRDA reauthorization takes an important step in that direction with its provisions for underserved harbors.

I am also proud that this bill includes a new statewide authorization for the Army Corps to provide assistance to Maryland on environmental infrastructure. We very much will take advantage of this opportunity. We know that we have challenges with the Chesapeake Bay, and this environmental study assistance will certainly help us in meeting our obligations.

This authorization will also help communities across my State deal with the impact of aging infrastructure and move forward on the backlog of critical repairs and upgrades to water supply, wastewater, and stormwater infrastructure.

The bill recognizes that because the Army Corps work is in high demand around the country, the Corps needs to be accessible to communities and engage with them directly on the challenges they face. The Planning Assistance to States Program, which has been so important to Maryland, will now include a new authority for the Corps to conduct this outreach to communities.

The Army Corps is carrying out its important work on navigation, flood risk mitigation, ecosystem restoration, and environmental infrastructure against the backdrop of a worsening climate crisis.

This reality is forcing us to act with new urgency to protect our communities from multiple hazards that our country is already experiencing with increased frequency and severity, including concentrated catastrophic rainfall events, sea level rise, and the associated erosion and flooding that these impacts bring. It is also forcing us to prioritize the restoration of ecosystems harmed by climate change that can still play a role in building resilience. All of that is incorporated in this bill, and we will be able to have those tools that are available.

I just want to mention that one example is marshlands, which absorb tons of carbon dioxide in the United States each year. They buffer waves and reduce flooding during storms. We had a hearing in the Environment and Public Works Committee yesterday—it was a good hearing—on how we can get carbon capture. Well, one of the ways we can get carbon capture through natural causes is to restore wetlands, which trap carbon, and this bill will allow us to move forward in that direction.

Finally, I want to note that, this year, the Army Corps' Baltimore District is celebrating its 175th anniversary. I congratulate the Baltimore District on this important milestone. The district has played an instrumental role in the history of our Nation and the State of Maryland, dating back to the construction of Fort McHenry, and I am proud of the ongoing partnership of Colonel Pinchasin, the current regional director.

I urge my colleagues to support this bill, and I again applaud the great leadership we have on our committee, the very open way that we do business, the way that we listen to each other and are able to get the priorities accomplished.

To Senator CARPER and Senator CAPITO and Senator CRAMER, it is a pleasure to work with you, and thank you for making this possible.

I yield the floor.

The PRESIDING OFFICER. The Senator from West Virginia.

Mrs. CAPITO. Mr. President, I would like to thank the Senator from Maryland, Mr. CARDIN, for his good, hard work with Senator CRAMER on the subcommittee. Senator CARDIN and I share the Chesapeake Bay. He has got a lot more of it than I do, but we have worked on those issues for years together, and I think that shows his dedication not just to his State but to the environment. So I appreciate all of his efforts.

I am very pleased to rise today in strong support of the bipartisan Water Resources Development Act of 2022. This is the bill we are considering today. We call it WRDA. Most of us know it as WRDA.

Congress authorizes water resource projects and sets national policies for the Civil Works Program and for the U.S. Corps of Engineers. The work of the Corps facilitates commerce throughout the country and internationally. Projects along our inland waterways, which are important in my State, and in our ports enable the movement of cargo while also bolstering our supply chain. Their support and partnership during this process were integral for us to reach a solid agreement.

So, Mr. Chair, I would like to thank you and your staff, and I am going to go through our staff list really quickly: Mary Frances Repko, John Kane, Jordan Baugh, Mayely Boyce, Tyler Hofmann-Reardon, Milo Goodell, and Janine Barr from your staff.

So thank you all very, very much.

Today proves, again, the ability of our EPW Committee to develop bipartisan infrastructure legislation that addresses the needs of Senators in the communities that we represent. Our colleagues submitted more than 800 policy and project priorities to the committee. We worked hard to thoughtfully incorporate a majority of their requests into this legislation, and I think that shows with the vote we got in committee.

True to the Corps' tradition, the bill moves forward projects that benefit local communities and the entire country.

We know that natural disasters such as floods and hurricanes can strike at any time and have devastating consequences for our communities. The Corps' work to protect the lives and livelihoods of millions of Americans is furthered by congressional authorization of flood and coastal storm risk management projects.

Since 2014, Congress has enacted WRDA every 2 years, and I am thrilled that we are here again continuing that tradition. I again want to thank Chairman CARPER for his leadership and dedication to this critical piece of legislation, as well as—and I think I already mentioned them, but I will mention them again because Senator CARDIN and Senator CRAMER have been

very integral as the subcommittee chairs.

Specifically, the WRDA bill authorizes 30 projects around the country, including projects for navigation, flood and coastal storm risk management, and ecosystem restoration. One such project is a coastal storm risk management project along the eastern coast of Texas. Think of all of the hurricanes and damage that we have heard over the years that have come in on the eastern shore at Galveston and Houston. This will help mitigate the impacts of future hurricanes and ensure that critical port assets can continue to serve our country's shipping and supply chain needs as we are moving forward.

The bill also directs the Corps to expedite the completion of 24 previously authorized projects, and it authorizes 36 studies that will develop solutions to water resources challenges that we have ahead.

While this bill is very much oriented toward advancing critical projects and studies in our States, it also includes several policy changes that I would like to highlight. At the beginning of this process, I outlined areas in which I believe changes would be beneficial. I said we needed to reduce the confusion that some communities experience when they are dealing with the Corps and ensure more effective delivery of our projects—and efficient delivery. So the bill bolsters the Agency's technical assistance authorities, specifically the Floodplain Management Services and Planning Assistance to States Program—again, one that impacts my State greatly.

This bill authorizes the Corps to conduct outreach to ensure that our communities are knowledgeable of the ways in which the Agency can help them with their water resources needs. It directs the Corps to designate staff in each district that can do this outreach.

The bill makes important improvements to the Tribal Partnership Program and other authorities to assist Indian Tribes. It also expands existing programs and includes new authorities to assist communities that are economically disadvantaged, including those located in rural areas.

It requires reporting on timelines for the environmental review process for projects. The bill directs the GAO to conduct a study: a review of projects that are overbudgeted and delayed—find out what is going on—as well as a review of the Corps' mitigation practices for projects.

The bill includes several provisions that improve flexibility with regard to financial accounting; for example, the bill allows Federal Agencies to provide funding to help satisfy the non-Federal sponsor's contribution for a project or study under certain circumstances. It authorizes, for the first time, a dedicated research and development account for the Corps to spur innovation and provides contracting flexibility in undertaking these activities.

The bill directs the Corps to support science, technology, engineering, and math—STEM—education and recruit individuals for careers at this Agency. The input of non-Federal entities is crucial to successfully resolving water resources challenges now and in the future.

This bill establishes a new advisory committee for non-Federal interests to voice their opinions on how the Corps can better meet their needs.

We preserve the integral part of the non-Federal cost share partners in the project delivery process by avoiding mandates from Washington, DC, and ensuring that the Corps continues to evaluate a full array of solutions during the feasibility study phase.

In addition to my role as a ranking member, I represent the great State of West Virginia, and I worked to address the needs of my home State. Here are just a few highlights before I close.

This legislation advances a critical flood control project of the city of Milton, WV. Authorized in the 1990s, this project is longtime coming, and I am proud to have helped move it forward.

The bill also supports flood control studies for the Kanawha River Basin and the city of Huntington. And it continues to provide environmental infrastructure assistance to communities throughout the State.

Finally, the bill will provide additional critical support to riverbank stabilizations such as those on the Kanawha River.

In closing, there is a lot in this bill—I could go on and on, but I won't—for communities across the country. It is the culmination of a true bipartisan agreement and represents our shared goal of addressing the Nation's water resources needs.

I am very proud of our committee. I am very proud to be here today with you. We are active; we are cooperative; and we are fruitful. We get things done. I like that. It is a testament to the values and goals that Chairman CARPER and I share, and it is a testament to our personal friendship and our working relationship. Thank you for that.

Before I close, I would like to thank my staff as well for all of their hard work and dedication to seeing that we get this across the finish line: Adam Tomlinson, Murphie Barrett, Max Hyman, Kim Townsend, Katherine Scarlett, Jacob Mitchell, and Haden Miller.

I would also like to thank the technical assistance that we received from the U.S. Corps of Engineers staff: Amy Klein, Dave Wethington, and countless other technical staff.

And, then, from Senate legislative counsel, we would like to thank Deanna Edwards.

I look forward to a rousing vote here in a few minutes.

The PRESIDING OFFICER. The Senator from North Dakota.

Mr. CRAMER. Mr. President, I could not improve upon what has already been said about the work on this important bill. Senator CAPITO has articulated much more eloquently than I all of the priorities that are important in the bill.

I am just going to add my thanks to Chairman CARPER and to Ranking Member CAPITO and, of course, to subcommittee Chairman CARDIN as well. It has been a great team effort, as is, I think, illustrated in the final product and the overwhelming vote. Let's keep the team together. And let's just pass a really big, important WRDA bill.

And I emphasize again, we did this through regular order, colleagues. We stayed on the 2-year schedule, colleagues. And when we work together, we can do good work for the people we serve.

With that, I urge a strong vote.

The PRESIDING OFFICER. The Senator from Delaware.

Mr. CARPER. Mr. President, I want to thank Senator CRAMER not just for his words but—I will take my mask off—not just for his words but for his great participation, he and his staff, in this effort.

I don't think it has been said in our short time we have been on the floor here this morning: In the subcommittee, we don't just make up this legislation. We have a tradition of reaching out to other Senate offices. We reached out to all 100 Senate offices. We ask everybody—Democrat, Republican, a couple of Independents—and say: What are your priorities? What would you like to see prioritized, included in this legislation?

We received feedback and input from, I think, every single office. And we have tried to reflect that input in this legislation.

So this is very much a community effort. And for everyone who has participated, thank you for doing so and putting us in a position today to vote and, hopefully, in an affirmative way.

Before we do vote, I just want to express one more time my very, very strong support for the Water Resources Development Act of 2022. As we have heard before this bill: Affectionately known as WRDA, it is an ambitious, bipartisan water resources package that ensures the timely reauthorization of the U.S. Army Corps of Engineer studies and projects. The bill also equips the Corps with critical authorities to restore ecosystems and protect communities from climate-change-exacerbated events like flooding and drought.

This legislation is a product of tireless commitment to bipartisanship and doing the right thing. Senator CAPITO, Senator CARDIN, Senator CRAMER, and myself and our staffs look past the party differences and find, once more, a path forward on critical infrastructure needs, just as we did last year on the bipartisan infrastructure bill that the President signed into law late last year.

This is not the first time we have done this, and it won't be the last. This Congress, the Environmental Public Works Committee, has consistently advanced bipartisan legislation on drinking water; legislation on wastewater;

legislation on transportation—roads, highways, bridges—and on recycling just today, just today. All of those bills passed EPW unanimously, just like this Army Corps of Engineers bill passed unanimously.

As EPW chairman, I am quite proud of the committee's work. I just wish that everybody in the country who thinks that all we do is fight around here and agree on nothing—I wish they had a chance to kind of tune in and maybe be a fly on the wall and hear how when you work together, you can get some amazing stuff done and really important, really important things, as well, for all of our States, for every corner of this country.

A word, if I could, about the Army Corps of Engineers. I am a Navy guy. I spent something like 23 years Active Reserve Duty. I am the last Vietnam veteran serving here. But I have huge respect—huge respect—for the Army Corps of Engineers. I like to say: Different uniforms, same team. And in my State and, frankly, all 50 States, they do extraordinary work—sometimes without a lot of recognition, without a lot of thanks. And I just want to say, we recognize you in Delaware; we recognize you even in the Navy; and we are deeply grateful for the work that you do, the great work you do. We couldn't do a lot of what we do without your help. And this legislation is needed for the Army Corps to meet their responsibilities and obligations.

But all the bills that I mentioned earlier passed committee unanimously, as did this bill. And, again, we are so proud of the committee's work.

What a joy it is to work with Senator CAPITO. And I wish I could say the same thing about her staff. No. I am just joking.

Adam, you know we love working with you and your team, and we are really privileged.

We were privileged to be led on our side of the staff by Mary Frances Repko, who is new at this. She has not worked long for many weeks or months on the Hill. Actually, she has probably for a quarter of a century or so, and I think she started at the age of 12. She has done a lot, and she still has a lot of gas in the tank.

But going back to the Corps—the Corps is the principal steward of our Nation's water infrastructure, and it serves both as a facilitator and protector of our diverse economy.

This bill—WRDA 2022—recognizes that the Corps is an essential part of our lives. This bill takes critical steps to better support the Agency as it serves all parts of our country. From navigation to ecosystem restoration and flood control, the Corps is the backbone—really, the foundation, if you will, on which our country was built.

I would like to reiterate that every provision in this bill is the result of bipartisan work. I can confidently say that WRDA 2022 will benefit all corners of our nation—from Alaska to California to Kentucky to New York, from Maryland to rural towns and every place in between.

Again, I want to express my heartfelt thanks to staff on the Democratic side, the majority staff, and to Senator CAPITO's staff on the minority side, the Republican side.

Actually, you can walk into a meeting, some of the meetings we have with Senator CAPITO and myself and our staffs, and if you didn't know who worked for whom, you wouldn't know. You wouldn't know, which I think is an amazing thing, a wonderful thing.

With that in mind, again, I want to thank again my staff and Senate CAPITO's staff who worked so hard. I want to recognize, again, Mary Frances Repko and Adam Tomlinson for their dedicated leadership on the Democratic side and the Republican side of our committee.

I also want to thank Murphie Barrett, Max Hyman, Kim Townsend, Katherine Scarlett, Jacob Mitchell, Haden Miller, Mayely Boyce, Tyler Hofmann Reardon, Jordan Baugh, Milo Goodell, Janine Barr, and John Kane—especially John Kane—for their tireless efforts.

John, you are a force of nature. And thank you very, very much for your great leadership.

I would like to say, again—I just said that, so I am not going to say that again. I also want to thank Amy Klein and David Wethington of the Corps—Amy Klein and David Wethington of the Corps—for their countless hours of technical assistance and support as the bill was developed.

In closing, I want to encourage all of our colleagues to join us in supporting this excellent bill, because every State stands to benefit from the legislation before us today.

Mr. President, the Senate is now considering the Water Resources Development Act of 2022, affectionately known as WRDA. Not only is this biennial legislation an ambitious water resources bill, it is also the product of a tireless commitment to bipartisanship. Earlier this year, we reached out to all 100 Senators to solicit their input for this legislation. We developed this legislation using that feedback, and in May, we advanced this legislation out of the Environment and Public Works Committee by a vote of 20 to 0, something I am quite proud of as EPW chairman.

In these times of partisan divide, it is not often we see legislation receive unanimous support. But, as we all know, bipartisan solutions are lasting solutions. That is how I think we should approach much of our work in the Senate—by reaching across the aisle to find lasting solutions, where possible, to the problems we face as a nation. The bill before us today is a result of that partnership.

Before I delve into all we accomplish in this bill, let me thank everyone who played a role in its development—especially our EPW committee ranking member, Senator CAPITO, our Transportation and Infrastructure Subcommittee chair, Senator CARDIN, our subcommittee ranking member, Senator CRAMER, every member of our committee, and the members of our staffs. I also want to thank the U.S. Army Corps of Engineers for supporting us throughout the drafting process.

This legislation continues the 2-year cycle for WRDA. By passing it, we will ensure timely authorization of the Army Corps' studies and projects. This work is critical in supporting our economy, restoring critical ecosystems, and protecting communities from climate change and extreme weather events like flooding and drought.

When we talk about WRDA, I cannot overstate just how important the Army Corps' work is in the lives of Americans across the country. The Corps is the principal steward of our Nation's water infrastructure. That includes our beaches, our waterways, and our flood control systems. Without the enactment of WRDA, our economy could well grind to a halt.

The Corps operates and maintains America's water highway, a 12,000-mile-long system of inland waterways with 209 locks that are vital to domestic and international commerce. Each year, more than 500 million tons of commodities move through this system, including 60 percent of our Nation's agricultural exports. Operating and maintaining this extensive network results in an economic benefit of nearly $14 billion each year for our country.

In addition to managing the waterways that connect our ports to world commerce, the Army Corps of Engineers is also responsible for ensuring safe, reliable, and efficient navigation at our coastal ports. As we have seen over the past 2 years, navigable shipping channels are essential to keeping global supply chains moving.

More than 99 percent of U.S. overseas trade volume moves through the 13,000 miles of coastal channels maintained by the Corps, supporting over 30 million jobs across the country. Cargo activity at our Nation's ports supports more than a quarter of the U.S. economy. And, over the next decade, an estimated $66 billion in future investment will be needed to ensure continued domestic job creation and economic growth.

Recognizing the economic importance of our Nation's inland shipping channels, WRDA 2022 adjusts the Inland Waterways Trust Fund cost share to expedite much needed project improvements.

The legislation also addresses the harbor deepening and maintenance needs of commercially significant ports, as well as underserved community harbors. While commercially significant ports are vital to our Nation's economy, community harbors are similarly important to local and regional economies.

WRDA 2022 ensures that these community harbors, which provide essential fishing, recreation, and navigation services, will continue to receive maintenance that will allow for their continued use.

As a recovering Governor, I often like to say that it is our responsibility as elected officials to create a nurturing environment for job creation and job preservation. Maintaining our ports and coastal waterways is a cornerstone of that nurturing environment.

The Corps is also a leader in flood and storm damage mitigation and ecosystem restoration. In addition to managing over 700 dams and more than 13,000 miles of levees and floodwalls, it restores and nourishes the Nation's dunes and beaches, constructs and maintains wetlands and floodplains, and protects shorelines and riverbanks.

In total, the Corps' flood and coastal storm risk management activities, and infrastructure portfolio, provide the nation an economic benefit of nearly $260 billion in damage prevention and reduction. This is critical to understand because more than 40 percent of our Nation's population lives in coastal counties. If coastal counties were their own nation, they would rank third in the world in gross domestic product—beaten out only by China and the United States as a whole.

This work is especially important for the communities I represent in Delaware. Earlier this year, on the Saturday before Mother's Day, a nor'easter pummeled beaches up and down the Delmarva Peninsula. When I toured the damage, it was staggering to think that in 2 weeks, these communities needed to be ready for the first real beach season since the start of the COVID pandemic.

While many beaches had experienced severe erosion and destruction, the dune system that the Corps had built worked as designed and protected Delmarva communities from the storm. Homes and buildings remained intact. Businesses could still operate. States were prepared to handle the storm because of the work that the Army Corps had done. Now, we are working with the Corps to rebuild these beaches, which are the lifeblood of our States' economies.

Water, as we all know, is essential for life and a critical input into virtually all economic activity. It is hard—in fact, it is impossible—to have life, liberty, and the pursuit of happiness, without the use of water and water-related infrastructure. Unfortunately, climate change is fueling extreme weather in the form of longer and stronger noreasters, hurricanes, and droughts. This threatens the Corps' ability to be a good steward of our water infrastructure, as well as that infrastructure's ability to protect and support our economy.

And this is not just a problem for coastal communities. For inland communities like those along the Missouri River, climate change means heavier and more frequent precipitation events, inland flooding, riverbank erosion, and the inundation of water treatment systems with sediments and contaminants in some areas. For other communities out west, climate change means historic droughts, water shortages, and deeply destructive wildfires.

The Water Resources Development Act of 2022 recognizes these challenges posed by climate change. It accounts for the new realities that the Corps faces in carrying out its primary missions and takes critical steps to address these looming concerns. How?

First, WRDA 2022 overhauls the Corps' project development authorities, allowing the agency to better address the impacts of climate change. This will make a big difference in States like Arizona, where we are witnessing the worst drought conditions along the Colorado River in 12,000 years.

Under our legislation, the Corps and local project sponsors will, for the first time, be able to partner and develop cost-shared plans to address drought risk management and water supply conservation during the planning, constructing, and operating of water resources development projects.

Communities in coastal States will also be able to develop projects that address their specific climate-related impacts. This means that we will see projects better formulated to combat sea level rise, as well as back bay flooding or even sunny day tidal changes instead of just storm surge protection.

In addition to overhauling the Corps' project development authorities, WRDA 2022 makes clear that the protection and restoration of shorelines and riverbanks from erosion and other damaging forces is a primary responsibility. It also improves the Corps' ability to make shorelines and riverbanks more resilient.

In crafting this legislation, we also made equity a top priority. I am pleased to report that WRDA 2022 builds on the significant inroads made in WRDA 2020 to rectify historical inequities for Tribal and disadvantaged communities.

WRDA 2022 establishes a new Tribal and Disadvantaged Communities Advisory Committee to help the Corps more effectively deliver projects, programs, and other assistance to these communities. It also makes permanent the 2020 pilot programs that cover cost shares for economically disadvantaged communities.

In addition, this legislation reauthorizes the Corps' Tribal Partnership Program and makes a series of targeted improvements to increase opportunities for Tribal communities to partner with the Corps on essential projects in a more cost-effective way.

Finally, WRDA 2022 establishes a new workforce development and STEM outreach program at the Corps with a priority to recruit new engineers from historically disadvantaged communities.

As we move to the consideration of the Water Resources Development Act of 2022, I am reminded of an old African proverb that goes something like this: ''If you want to go fast, go alone. If you want to go far, travel together.'' On this bill, we can proudly say that we have chosen to travel together.

With that in mind, I would like to take a moment to thank my staff and Ranking Member CAPITO'S staff who together spent tireless hours drafting and negotiating each provision in this bill.

I would like to recognize our staff directors, Mary Frances Repko and Adam Tomlinson, for their dedicated leadership.

I would also like to thank Murphie Barrett, Max Hyman, Kim Townsend, Katherine Scarlett, Jacob Mitchell, Haden Miller, Mayely Boyce, Tyler Hofmann-Reardon, Jordan Baugh, Milo Goodell, Janine Barr, and John Kane for their tireless efforts.

I like to say that if you walked in a room and saw our staff in discussions, you would be impressed at how well they work together—even when discussing difficult issues.

I would also like to thank Amy Klein and David Wethington of the Corps for the countless hours of technical assistance and support as this bill was developed.

In closing, I urge all of my colleagues to join Senator CAPITO and me in supporting this excellent bill because every State stands to benefit from the legislation before us today.

I yield the floor.

With that, Mr. President, I ask unanimous consent that all time be yielded back.

The PRESIDING OFFICER. Without objection, it is so ordered.

Under the previous order, the bill, as amended, is considered read a third time.

The amendment was ordered to be engrossed and the bill to be read a third time.

The bill was read the third time.

The PRESIDING OFFICER. The bill having been read the third time, the question is, Shall the bill, as amended, pass?

Mr. CARPER. I ask for the yeas and nays.

The PRESIDING OFFICER. Is there a sufficient second?

There appears to be a sufficient second.

The clerk will call the roll.

The senior assistant legislative clerk called the roll.

Mr. SCHUMER. I announce that the Senator from Illinois (Mr. DURBIN), the Senator from Vermont (Mr. LEAHY), and the Senator from West Virginia (Mr. MANCHIN) are necessarily absent.

Mr. THUNE. The following Senators are necessarily absent: the Senator from North Carolina (Mr. BURR), the Senator from Alaska (Ms. MURKOWSKI), and the Senator from Nebraska (Mr. SASSE).

The result was announced—yeas 93, nays 1, as follows:

[Rollcall Vote No. 273 Leg.]

YEAS—93

Baldwin	Hagerty	Portman
Barrasso	Hassan	Reed
Bennet	Hawley	Risch
Blackburn	Heinrich	Romney
Blumenthal	Hickenlooper	Rosen
Blunt	Hirono	Rounds
Booker	Hoeven	Rubio
Boozman	Hyde-Smith	Sanders
Brown	Inhofe	Schatz
Cantwell	Johnson	Schumer
Capito	Kaine	Scott (FL)
Cardin	Kelly	Scott (SC)
Carper	Kennedy	Shaheen
Casey	King	Shelby
Cassidy	Klobuchar	Sinema
Collins	Lankford	Smith
Coons	Lee	Stabenow
Cornyn	Luján	Sullivan
Cortez Masto	Lummis	Tester
Cotton	Markey	Thune
Cramer	Marshall	Tillis
Crapo	McConnell	Toomey
Cruz	Menendez	Tuberville
Daines	Merkley	Van Hollen
Duckworth	Moran	Warner
Ernst	Murphy	Warnock
Feinstein	Murray	Warren
Fischer	Ossoff	Whitehouse
Gillibrand	Padilla	Wicker
Graham	Paul	Wyden
Grassley	Peters	Young

NAYS—1

Braun

NOT VOTING—6

Burr	Leahy	Murkowski
Durbin	Manchin	Sasse

The bill (H.R. 7776), as amended, was passed.

CHANGE OF VOTE

Mrs. BLACKBURN. Mr. President, on rollcall vote No. 273, I voted no. It had been my intention to vote yea. Therefore, I ask unanimous consent to change the vote since it will not affect the outcome.

The PRESIDING OFFICER. Without objection, it is so ordered.

(The foregoing tally has been changed to reflect the above order.)

The PRESIDING OFFICER (Mr. KING). Under the previous order, the motion to reconsider is considered made and laid upon the table.

The majority leader.

ORDER OF PROCEDURE

Mr. SCHUMER. Mr. President, I ask unanimous consent that the Senate proceed to executive session to consider the following nomination: Calendar No. 1063, David Pressman, to be Ambassador Extraordinary and Plenipotentiary of the United States of America to Hungary; that the Senate vote on the nomination at 1:45 p.m. today, without any intervening action or debate; that, if confirmed, the motion to reconsider be considered made and laid upon the table; that any statements related to the nomination be printed in the RECORD; that the President be immediately notified of the Senate's action; further, that the July 19, 2022, order with respect to the Milstein nomination remain in effect.

The PRESIDING OFFICER. Is there objection?

Without objection, it is so ordered.

EXECUTIVE SESSION

EXECUTIVE CALENDAR

The PRESIDING OFFICER. Under the previous order, the Senate will proceed to executive session to consider the following nomination, which the clerk will report.

The bill clerk read the nomination of David Pressman, of New York, to be Ambassador Extraordinary and Plenipotentiary of the United States of America to Hungary.

Thereupon, the Senate proceeded to consider the nomination.

The PRESIDING OFFICER. The Senator from Connecticut.

PACT ACT

Mr. MURPHY. Mr. President, I am coming down to the floor to speak briefly on our efforts to protect women's access to birth control and contraception, but before I do, I just want to note something that happened here today that was really odd.

So a few weeks back, we came together and had a consensus bipartisan vote to stand up for our veterans. A number of Republican and Democratic legislators here in the House and the Senate worked together to develop something called the PACT Act.

This is groundbreaking legislation, decades in the making, that provides veterans access to healthcare for exposure to toxic chemicals, exposure that comes through being subjected to military burn pits—these are pits where a lot of toxic chemicals and plastics are burned at military installations—but also for exposure to chemicals like Agent Orange.

So we had an 84-to-14 vote here just a few weeks ago in favor of the PACT Act and then the bill came back to the Senate due to some technical corrections having nothing to do with the substance of the bill. And yesterday the vote went from 84 to 55. Thirty Senators reversed their vote, and the bill failed. All 30 of those were Republicans.

What happened in 2 weeks that convinced 30 Republicans, who previously thought it was a good idea to help veterans, to decide instead to tank a bill that was helping veterans?

There are really only two explanations.

The more charitable explanation is that 30 Republicans just changed their minds; that 3 weeks ago they thought it was a good bill, helping veterans was a good idea, and 3 weeks later they decided that it wasn't a good idea; that they would rather spend that money on somebody else instead of our most vulnerable veterans.

Now, that would be pretty fantastic to have 30 Members of the Senate change their minds on the merits of a bill, especially a bill that helps veterans, the most vulnerable veterans in this country, veterans who are dealing with cancer and respiratory illnesses.

The less charitable explanation is this. Republicans are mad that Democrats are on the verge of passing climate change legislation and have decided to take out their anger on vulnerable veterans because that is the other thing that has changed in the last 3 weeks. Republicans thought that Democrats weren't going to be able to pass a bill asking corporations to pay a little bit more, tackling climate change. Yesterday, news emerged that there is an agreement that makes it likely that a climate change bill is going to proceed on the Senate floor, and, magically, 30 votes flipped.

That is the less charitable explanation because that would be pretty horrific if Republicans were mad about a climate change bill and decided to take out their anger on veterans—on vulnerable veterans.

So maybe in the coming days we will figure out which one it was. Maybe we will figure out if 30 votes flipped because the merits of the bill dictated that flip or maybe we will find out that Republicans have decided to just take out their anger about the reconciliation bill on veterans. Either way, this is not a good day for veterans in this country.

Democrats are standing up for veterans. We are going to keep voting for the PACT Act. We are going to bring it back. But 30 Republicans who thought helping veterans was a good idea just 3 weeks ago all of a sudden abandoned the cause.

WOMEN'S HEALTHCARE

Mr. President, I came down to the floor to talk about something that happened yesterday as well. That was an effort by Democrats to get a bill on the floor that would protect women's access to contraception, and Republicans, predictably, blocked that bill from receiving consideration. I want to talk about the broader picture of what is going on here today.

J.D. Vance is a candidate for the U.S. Senate. He is a Republican star, maybe the party's highest profile candidate running for the Senate. Here is what he said about men who beat up their wives. He said: ''[O]ne of the great tricks that I think the sexual revolution pulled on the American populace'' was convincing people in ''unhappy'' or ''violent'' marriages that getting divorced would ''make [them] happier.''

Women should stop complaining, he suggests, about getting the crap beat out of them, stop trying to leave abusive husbands and just stick it out.

Senator HAWLEY, a few months ago, gave a whole speech explaining how men have certain virtues critical to the maintenance of the American Republic like aggression and competitiveness and independence that women don't have in equal measure. He made a pretty unapologetic case for the superiority of men over women.

MARJORIE TAYLOR GREENE, who is the biggest draw in the Republican Party right now—nobody gets a bigger crowd than she does. She says that women should just accept that they are the ''weaker sex.''

A few weeks ago, on this floor, Republicans refused to allow a debate on a bill that simply said government can't tell women which States they can travel to in order to receive healthcare. And yesterday, Republicans blocked proceeding to a bill that simply says that men shouldn't be able to stop women from buying birth control.

So put that all together. Do you see the pattern emerging here? Do you see what is going on? This is a pretty coordinated, industrial-scale effort to bring women under control of the State, to take away decades of rights accumulation for women, and put them back where they were in the 1940s and the 1930s.

This is a massive, coordinated effort by Republicans to put more women under government control: no more abortion services, no more divorces from your abusive spouses, no more driving your car wherever you want, no more birth control. Women are on their way back to becoming second-class citizens. That is what the cumulative agenda looks like here.

And I don't think I am paranoid. I don't think I am overreading the tea leaves. I am just picking up the pieces that Republicans keep putting down day after day after day.

I know Republicans will dispute this characterization, but if they do, we are going to continually give them the chance to prove us wrong—vote for a bill that says States can't ban birth control, vote for legislation that says States can't tell women where they can drive. What we are asking for is not an expansion of women's rights, just a protection to make sure that we don't take these big leaps backward.

Other Republicans will say that these are imagined crises; that States really aren't going to ban birth control. But just pay attention to what is happening in State legislatures right now all over the country. States are trying to restrict women from accessing contraception because many Republicans will tell you that protecting life, in their view, involves banning the use of birth control.

In Texas, the State already bans its family planning centers from distributing birth control. In Missouri, conservatives are trying to block healthcare providers who receive Federal funds from prescribing contraception. And the Supreme Court in the Dobbs decision basically briefed that it is likely to strike down the right to birth control sometime soon.

So this isn't a fake crisis; this is real. And I am not making up this new wholesale Republican effort to try to drag women back 100 years and to sideline them in a way that we thought was history. That is all real too. And we will give Republicans the chance, over and over again, to prove that wrong.

I yield the floor.

The PRESIDING OFFICER. The Senator from Kansas.

PACT ACT

Mr. MORAN. Mr. President, I want to talk just a few minutes about the circumstances we now find ourselves in, in passing what I consider to be one of the most important pieces of legislation—perhaps the most important piece of legislation that is currently pending certainly before the U.S. Senate—and that is what we have been referring to as the PACT Act.

It is legislation that we have talked about many times on the Senate floor. It is a piece of legislation that I and Senator TESTER introduced. It is a piece of legislation that follows a long line of bills coming from the Senate Veterans' Affairs Committee with broad bipartisan support that have consequential outcomes for the veterans of our Nation.

We started years ago, several years ago, in regard to the MISSION Act. We followed that with the John Scott Hannon Act.

The MISSION Act provided additional opportunities for veterans to access care in settings across the country to bring medical care to veterans closer to home to make it more available.

And we followed that with the John Hannon Act, which dealt with mental health and trying to reduce and eliminate the use of suicide in veterans' lives.

And then, finally, we have this major piece of legislation that has been a long time coming—way too long—in meeting the needs of those veterans who served, now, a long time ago in Vietnam and in Southeast Asia and our veterans who more recently served in Iraq and Afghanistan. It is the subject of toxic exposure, where veterans come into contact with something that maybe not at the time created any healthcare concerns for them but over time has become a significant medical and healthcare challenge for those who served in those areas, in Iraq and Afghanistan, their location in relation to the location of a burn pit—where many things were burned and caused toxic exposure for those veterans in the vicinity—and going back to Vietnam, Agent Orange, which has been so devastating to so many people.

Veterans have waited for a long time. The process to date has been so slow. The legislative efforts, while they have occurred, were never sufficient to meet the needs of those who served our Nation.

And the actions at the Department of Veterans Affairs have delayed decisions for veterans that would make certain that those who encountered these traumatic and damaging healthcare consequences of their service to our Nation receive the medical care that they deserve and the benefits, the financial benefits, that come from being disabled as a result of military service.

I want to reiterate my support for that piece of legislation. The PACT Act needs to—as it came out of our committee by a unanimous vote. It passed the Senate previously with 84 votes. And we need to continue the practice of taking care of our Nation's veterans in a way that is not partisan on either side of the issues.

I often tell my constituents, with some level of pride, that I serve on a committee, and, unfortunately, one of the few remaining committees in which it is difficult sometimes to tell whether there is a Republican chairman or a Democratic chairman. I have been a ranking member and the ranking member of that committee and I have been the chairman of that committee. The Senator from Montana and I have worked hard. And in many ways, because of our veterans, it is a natural occurrence that we find common ground, and our committee members have done the same.

We are now at the point in which we need to make certain that the PACT Act be considered, that cloture be invoked, the difficulties we have had with whether there needs to be an amendment or amendments need to be resolved, and this issue needs to pass the U.S. Senate in short order.

Our veterans need to be reassured. I would do this to the best of my ability to reassure veterans that, for whatever is in my capabilities, I am going to be the advocate, the spokesperson, the one who is trying to make—along with my colleagues. I am not trying to single myself out as the only one who cares about this issue. But for what I can do, I am going to do it to make sure that we have success in this legislation. Success, to me, is passage by the Senate, passage by the House, and signed by the President, and a law that then can be implemented by the Department of Veterans Affairs.

I have said many times that there are lots of challenges still to come. No piece of legislation that we pass is easily implemented by the Department of Veterans Affairs, and we will have our work to do. But at the moment, the work before us, the work that needs to be accomplished today, now, this week, is the passage of the PACT Act so that our veterans who are encountering significant medical challenges have the care and benefits that come from being a veteran.

I am one of those who agree with the thought, the belief, that if you serve in our military, we owe you to live up to the promises we made. I am of the belief that the costs of war—they certainly come with the service. We then have an obligation not only to fund the military activities but to fund the programs and benefits that are necessary to care for those who serve who, as a result of their service, are damaged mentally, physically, socially, and emotionally.

Again, I ask the leaders of the U.S. Senate and my colleagues here to—let's get this resolved, let's get it resolved quickly, and let's make certain that our veterans, as we want to serve them, are served in the way they should be.

I just would only add that time is of the essence. This bill has been pending before the Senate for a while and, before that, in the U.S. House of Representatives. But it has been a conversation by our veterans service organizations, their members; it has been a conversation by veterans organizations across the country now for decades: Solve this problem.

We are on the cusp of doing so, and we should not let this moment pass. There are veterans who are dying every day. There are veterans who have died since this legislation was introduced. I would like to make certain that there is no veteran, even if he or she is nearing that time of the end of their life, worried about whether their children or their spouse is going to receive the care and treatment and the benefits that they earned by their service.

So, Mr. President, please, my colleagues of the U.S. Senate, please, let's make certain we do our work to honor their service.

I yield the floor.

The PRESIDING OFFICER. The Senator from Mississippi.

VLADIMIR KARA-MURZA

Mr. WICKER. Mr. President, I rise this afternoon to make sure that the plight of Russian leader Vladimir Kara-Murza is not forgotten, that the outrageous imprisonment of Vladimir Kara-Murza by the Russian dictator Vladimir Putin is not forgotten.

We remember three decades ago what hope we had for a new Russia. Russia had entered a new age of possibility some three decades ago. After more than 70 years of communist repression, the Soviet order had collapsed, and with it, the Iron Curtain that kept freedom away from millions was torn down.

As the red flags came down in Moscow, the free world watched with anticipation, hoping that democracy and the rule of law might finally take root in a free Russia. Regrettably, that has not happened. Instead of democracy and freedom, the Russian people got Vladimir Putin, a man who has used his office to murder, imprison, and force into exile anyone who threatens his grip on power, all the while enriching himself beyond anyone's wildest imagination while ordinary Russians, especially out in the countryside of Russia, live in squalid conditions.

One of his latest victims is Vladimir Kara-Murza, a Russian patriot and a friend I had the privilege of hosting in my office just 4 months ago. As a matter of fact, I have hosted him several times.

Today, Vladimir Kara-Murza spends his days in a prison cell, where the only thing he can see through the window is a barbed wire fence. What was his crime? He simply spoke the truth about Putin's war on Ukraine. His trial—if it can even be called a trial—was held in secret. No journalists, no diplomats, or spectators of any kind were allowed to be there. And for his offense of talking about the Russian war against Ukraine, he now faces up to 15 years in prison.

This is not the first time the Russian dictator has tried to silence him. Mr. Kara-Murza has been poisoned twice—in 2015 and 2017—and almost died in both cases. Since then, his wife and three children have had to live abroad, although he himself has chosen to spend most of his time in Russia.

In a recent interview with National Review, his wife Evgenia explained why he insists on working in Russia:

> He believes that he would not have the moral right to call on people to fight if he were not sharing the same risks.

As Mr. Kara-Murza put it in a recent CNN interview the day of his arrest, he said:

> The biggest gift we could give the Kremlin . . . would be to just give up and run, and that's all they want from us.

What a contrast in character to the man currently running the Kremlin.

The National Review story goes on to describe Mr. Kara-Murza's courageous work for democracy through the eyes of his wife Evgenia, as well as the costs that he and his family have endured, along with so many other Russian dissidents.

Mr. President, I ask unanimous consent at this point to have printed in the RECORD the National Review story that I referred to.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

[From the National Review, May 31, 2022]

IN DARK TIMES, A BRAVE MAN

(By Jay Nordlinger)

On March 15, Vladimir Kara-Murza gave a speech to the Arizona legislature. ''These are very dark times in Russia,'' he said. ''These are times when we have hundreds of political prisoners, and that number is only going to grow.'' Less than a month later, Kara-Murza himself became a political prisoner.

Born in 1981, he is one of the most prominent opposition figures in Russia. (Given the state of things, we should probably return to the word ''dissidents.'') He is a politician, journalist, and activist. A proponent of democracy. For 15 years, he worked alongside Boris Nemtsov, the opposition leader. They became the closest of friends. Nemtsov was godfather to one of Kara-Murza's children. (''In Russia,'' Kara-Murza once told me, ''that makes you family.'')

Together, they worked for passage of the Magnitsky Act in the U.S. Congress. This is the act that allows the government to sanction individual human-rights abusers rather than whole peoples or societies. Nemtsov and Kara-Murza were sitting in the gallery on November 16, 2012, when the House passed the act. Nemtsov commented, ''This is the most pro-Russian law ever enacted by a foreign government.'' At last, the persecutors of Russians would face consequences.

On February 27, 2015, Boris Nemtsov was murdered—gunned down within sight of the Kremlin. This had a deep impact on the Russian democracy movement, and it had a deep impact on Vladimir Kara-Murza, personally. He told me, ''My life is divided into before and after February 27, 2015.''

His wife, Evgenia, confirms the importance of Nemtsov's murder to her husband. ''He will never come to terms with it. I just know him all too well. Boris Nemtsov was his teacher, his mentor, and then he became his close friend.'' Plus, ''he was family.''

Three months after Nemtsov's murder, Vladimir Kara-Murza himself was nearly murdered. He was subject to a poison attack, of the kind for which Vladimir Putin's agents have become infamous. After he recovered, Kara-Murza kept working, not scared off. Approximately two years later—in February 2017—he was again almost murdered. Again in a poison attack.

On the floor of the U.S. Senate, John McCain made a statement about Kara-Murza, a friend: ''Vladimir has once again paid the price for his gallantry and integrity, for placing the interests of the Russian people above his own interest.'' Congressman Ed Royce, then the chairman of the House Foreign Affairs Committee, called Kara-Murza ''one of the bravest people I know.''

For the record, lots of people have called Kara-Murza ''one of the bravest people I know.'' Also for the record: McCain asked Kara-Murza to serve as a pallbearer at his funeral, which he did, when the time came (September 2018).

After the second poison attack, doctors told Kara-Murza, ''If there's a third one, you won't survive it.''

Last year, a team of independent investigators was able to identify the exact unit of the Russian secret police that poisoned Kara-Murza—and Alexei Navalny and others. (Navalny is the current Russian opposition leader, and also a political prisoner.) The investigators pinpointed the agents who carried out the attacks.

Wrote Kara-Murza, ''My emotions are difficult to express with words. It's one thing to know intellectually that someone has tried to kill you—and it's quite another to see the names and photographs of the actual people who did this.''

For some years, Evgenia Kara-Murza and the couple's children have lived abroad. ''Obviously, it's not an ideal situation,'' Vladimir told me in 2017, ''but it has to be this way. I go back and forth, but I spend most of my time in Russia.'' He was willing to put his own neck on the line, but he was not willing to do the same with his family's.

Many people asked him, or pleaded with him, to work in the West, rather than in Russia itself. That way, he would be safer, if not entirely shielded from danger. Nemtsov was dead. Kara-Murza almost died, twice. Wasn't this enough? Hadn't he paid his dues, so to speak? Did he really need to be on Russian soil, making it easier for Putin's men? Kara-Murza rejected all entreaties, saying that he belonged in Russia.

''What does Evgenia think of all this?'' I asked him in 2017. He answered, ''If you ask her, she'll say, 'I knew what I was signing up for.' '' Then, with a hint of a blush, he said, ''I'm grateful to have such a woman in my life.''

Today, Evgenia tells me the following: ''When we were dating, 20 years ago, I was looking at him and thinking, 'You know, I can imagine spending my life with this man. He's smart, he's funny, he's honorable. He has so much integrity.' Later, when the poisonings and persecutions began, I thought, 'I wish our lives could be a little more boring.' But I do admire Vladimir. I've always admired and respected him for his principled stand, and I would never have him any different.''

Explaining Vladimir's insistence on working in Russia, Evgenia says, ''He believes that he would not have the moral right to call on people to fight if he were not sharing the same risks.''

Back in 2017, I asked Vladimir whether his name would protect him. He was a friend of U.S. politicians, he had been featured on 60 Minutes, he had spoken at forums around the world. He was a bit of a celebrity. Kara-Murza looked at me and said, in effect, ''Are

you kidding?'' Then he said (I will quote directly), ''If they can kill the leader of the opposition on the bridge next to the Kremlin''—he was speaking of the Nemtsov murder—''they can do anything.''

Vladimir Putin launched his all-out assault on Ukraine on February 24 of this year. Kara-Murza, naturally, cried against this assault. On March 15, he gave his speech to the Arizona legislature. On April 11, he appeared on CNN, from Moscow. He spoke of the Putin regime's history of murder. Mincing no words, he said, ''This regime that is in power in our country today—it's not just corrupt, it's not just kleptocratic, it's not just authoritarian. It is a regime of murderers. And it is important to say it out loud.''

He went on to say, ''It's tragic, frankly, that it took a large-scale war in Europe for most Western leaders to finally open their eyes to the true nature of this regime.''

His interviewer asked him about being in Russia, after all that had happened to him, and others. Wasn't he afraid of being killed? Kara-Murza answered, ''Look, I'm a Russian politician, I have to be in Russia, it's my home country. I think the biggest gift we could give to the Kremlin—those of us who are in opposition—would be to just give up and run, and that's all they want from us.''

He was arrested that night. Five or six agents rushed at him when he was returning to his apartment building and parking his car. They dragged him into a van and took him to a police station. He was denied the right to call a lawyer. The next day, the authorities sentenced him to 15 days in prison for resisting arrest (something Kara-Murza had not done). It is typical for the government to sentence a dissident to 15 days on some little charge, while they cook up a bigger charge. Agents took Kara-Murza to a detention center.

Eventually, he did have lawyers, and very good ones: Vadim Prokhorov and Olga Mikhailova. (The latter is also lawyer to Navalny.) Kara-Murza does not have access to a phone or the Internet or anything like that. But, in detention, he was able to dictate a column to one of his lawyers.

On this matter of resisting arrest, Kara-Murza said the following:

Sofia Kalistratova, the legendary Moscow lawyer who defended dissidents in the ''anti-Soviet'' trials of the 1960s and 1970s, told her charges: ''Everyone else may cross the street on a red light, but you must always cross on green.'' She knew that her clients couldn't give the authorities the slightest excuse to accuse them of breaking the law.

I have always tried to follow this principle.

In the column he dictated, Kara-Murza also reported a very interesting detail. When agents brought him to the detention center, they rang the doorbell and said to the person opening, ''Here's a political for you. They should have called you from headquarters.'' (By ''a political,'' they meant a political prisoner, not a common criminal.)

''Among the inmates in the special detention center,'' said KaraMurza in his column, ''are a young man and woman who had staged a protest in response to the murders in Bucha, Ukraine.'' Also, there were ''students of the Higher School of Economics who were detained for an antiwar demonstration.''

Altogether, some 15,000 Russians have been detained for protesting the assault on Ukraine. These people have assumed great risks and have exhibited notable bravery. In a column before his arrest, Kara-Murza recalled the seven people who protested in Red Square against Moscow's invasion of Czechoslovakia in August 1968. (Horrible things happened to them, naturally.) The Kremlin of the time was saying that the whole nation supported the invasion. One of the protesters, Natalia Gorbanevskaya, a poet, reflected on those days, many years later.

''A nation minus me,'' she said, ''is not an entire nation. A nation minus ten, a hundred, a thousand people is not an entire nation.'' So, thanks to the Red Square protest, the government ''could no longer say that there was nationwide approval for the invasion of Czechoslovakia.''

On April 22, when Kara-Murza had been in prison for a week and a half, the authorities lodged their bigger charge against him. They accused him of violating a new law, instituted on March 5. This law essentially criminalizes any criticism of the Ukraine war whatsoever. It is punishable by up to 15 years in prison.

Before the war, there were a few independent media outlets left in Russia—the venerable radio station Echo of Moscow, for example, and the venerable newspaper Novaya Gazeta. (Over the years, six of the paper's correspondents have been murdered.) Now all independent media have been shut down. Social media have been blocked. In another of his pre-arrest columns, Kara-Murza wrote, ''Near-total darkness has descended on Russia's information space with frightening speed.''

The first person charged under the new law—the March 5 law—was a blogger, Veronika Belotserkovskaya, who does not live in Russia, but in France. Her response: ''I was officially recognized as a decent person!'' In Kara-Murza's case, the authorities cited the Arizona speech in particular. As of this writing, he is awaiting a court date.

Earlier this year, I talked with Kara-Murza about what seemed to me the increasing, galloping re-Sovietization of Russia. The government had shut down Memorial—the leading civil-society organization in the country. Memorial was founded at the urging of Andrei Sakharov in the late 1980s. Sakharov—the great scientist and dissident—was its first chairman. The purpose of the group was to uncover and tell the truth about the past, and to promote freedom and democracy in the present.

As Kara-Murza pointed out to me, plenty of Soviet men are in the Russian government now—starting with the KGB colonel at the top. Who wants to be reminded of his past crimes? Or his present ones?

In Russia's supreme court last December, the chief prosecutor, Alexei Zhafyarov, said, ''Memorial creates a false image of the Soviet Union as a terrorist state.'' He also said that Memorial ''makes us repent of the Soviet past, instead of remembering glorious history''—and ''probably because someone is paying for it.''

Over the past eight years—since Putin's initial invasion of Ukraine—Kara-Murza and I have had several conversations about just that: Ukraine. Kara-Murza's view is that Putin is very, very nervous about a democratic example in that country. It's one thing if New Zealand, let's say, is a democracy. New Zealand is far away, and, besides, it's ''Anglo.'' But Ukraine? There are many ties between Ukraine and Russia: cultural, religious, linguistic. Millions of families have direct ties across the border. And if Russians see that Ukraine has a decent, open, democratic society . . . they may demand the same for themselves, which makes Putin and his men very nervous indeed.

In one of our conversations, Kara-Murza put it this way: ''A successful democratic experiment to Ukraine presents an existential threat to Vladimir Putin's authoritarian kleptocracy in Russia.''

It is Kara-Murza's strong belief that Russia, one day, will be free and democratic. People should avoid ''cultural condescension,'' he says. That is a phrase he borrows from Ronald Reagan. In his Westminster speech of 1982, Reagan said, ''Democracy already flourishes in countries with very different cultures and historical experiences. It would be cultural condescension, or worse, to say that any people prefer dictatorship to democracy.'' Earlier this year, Kara-Murza told me, ''I have absolutely no doubt that one day we will have a normal, modern, accountable democratic government in Russia. There's no reason that our nation is destined to be an outlier in Europe or the world, and to live under the yoke of a dictatorship.''

At the moment, Vladimir Kara-Murza sits in prison, and faces many years of it. His friends and allies are making as much noise as they can. Charles Krauthammer once told me about something that Meg Greenfield had said to him. She was the editorial-page editor of the Washington Post. When the life of Sakharov hung in the balance, she wanted something about him in her pages at least once a week, she said. That way, the Post might help keep him alive.

Chief among the shouters, or campaigners, today for Kara-Murza is his wife. I think of Avital Sharansky, who campaigned for her husband, Anatoly (later Natan), during his nine years in the Gulag. She had obtained a visa to go to Israel, he had not. Sharansky told me a few years ago, ''The biggest mistake the KGB made was letting Avita I out.''

''I've never been a public person,'' Evgenia Kara-Murza says, ''and I've never enjoyed being in the public eye. I am a quite introverted person, so I like working from home, and I like taking care of the kids, but unfortunately the situation sometimes changes, and I emerge when my husband is either poisoned or thrown in jail, because this is my partner, my soulmate, and I am prepared to do everything I can to bring my children's father home.''

Mr. WICKER. Mr. Kara-Murza's imprisonment is part of Mr. Putin's larger assault on what remains of political freedom in Russia. In Mr. Kara-Murza's words, Putin's regime has gone ''from highly authoritarian to near-totalitarian almost overnight.''

In March, Russian officials passed a new censorship law forbidding all criticism of Mr. Putin's war in Ukraine. That law has been the basis for more 16,000 arrests since the war began in February, including that of Mr. Kara-Murza. Another 2,400 Russians have been charged with administrative offenses for speaking out against the war. Meanwhile, Putin's propaganda machine is ramping up. Independent Russian media outlets have all but vanished, having been blocked, shut down, or forced out of the country by the Kremlin.

The last embers of freedom in Russia are going cold. Putin's crackdown on domestic freedom began in 2003, when Mikhail Khodorkovsky was arrested on trumped-up charges of tax fraud after he simply criticized the government. A former member of the elite, Mr. Khodorkovsky had successfully led the Yukos Oil Company through privatization after the Iron Curtain fell. And contrary to the Kremlin's claims, the company consistently paid its taxes. But that didn't stop Vladimir Putin from plundering its assets and throwing Mr. Khodorkovsky in jail, where he stayed for 10 years.

I would note that just before his arrest, Mr. Khodorkovsky displayed the

same courage and patriotism that we now see in Vladimir Kara-Murza. Like Mr. Kara-Murza, he knew very well he could go to jail for speaking out against the government, but Mr. Khodorkovsky did so anyway and refused to flee the country, saying:

I would prefer to be a political prisoner rather than a political immigrant.

Of course, by then, Mr. Putin had already shown himself willing to violate the international laws of war, having leveled the Chechen capital of Grozny in his own Republic of Russia in 1999. In 2008, he launched a new assault on international law with the invasion of Georgia. In 2014, he started a bloody war in eastern Ukraine. In 2016, Russian dictator Putin and his forces attacked the Syrian city of Aleppo, killing hundreds of civilians and prolonging the rule of Bashar al-Assad.

Meanwhile, Putin ramped up his attacks on domestic freedom as well. In 2015, Boris Nemtsov, leader of the democratic opposition, former Deputy Prime Minister of Russia, was shot to death in broad daylight just yards away from the Kremlin. Three months later, Mr. Kara-Murza was poisoned for the first time. More recently, in 2020, Alexei Navalny, the current leader of the opposition, was himself poisoned and had to seek treatment in Berlin. This is Vladimir Putin's Russia today. When Navalny recovered, he chose to return to Moscow, knowing the risks, and immediately upon landing, he was arrested.

This is the deplorable state of Russia and freedom under Vladimir Putin. Time and again, he has shown that he is bent on stamping out the aspirations of his people for freedom and the rule of law.

As leader of the free world, America must continue to condemn Putin's lawless acts and stand in solidarity with our Russian friends who are courageously fighting against all odds for a better future in Russia and are suffering as a result.

These are modern-day heroes—Alexei Navalny, Vladimir Kara-Murza—and we should not forget them.

My friend the distinguished senior Senator from Maryland, Mr. CARDIN, and I, along with Congressmen STEVE COHEN and JOE WILSON, are the four House and Senate leaders of the Helsinki Commission, which monitors human rights in former Soviet countries. We recently sent a joint letter to President Biden calling on the administration to name and sanction all of those who have been involved in the arrest, detention, and persecution of Vladimir Kara-Murza. I issue that call again today, and I invite my colleagues from both parties to stand with Vladimir Kara-Murza and work for his release.

I yield the floor.

The PRESIDING OFFICER. The Senator from Hawaii.

Ms. HIRONO. Mr. President, I ask unanimous consent to be able to complete my remarks.

The PRESIDING OFFICER. Without objection, it is so ordered.

UNANIMOUS CONSENT REQUEST—EXECUTIVE CALENDAR

Ms. HIRONO. Mr. President, I rise today in support of the confirmation of Dr. Lester Martinez-Lopez to be an Assistant Secretary of Defense for Health Affairs, or ASDHA.

The Defense Department is responsible for the health and welfare of over 1.3 million Americans who are entrusted with protecting our Nation. In order to ensure they get the care they need and deserve, the DOD must have an Assistant Secretary of Defense in place to lead their health affairs.

This position is the principal adviser to the Secretary of Defense for all health and force health protection policies, programs, activities, and the Integrated Disability Evaluation System. The ASDHA is responsible for the execution of the DOD medical mission, to provide and maintain physical and mental health readiness for medical services and support to members of the military services, their families, and those held in the control of the military services.

Dr. Martinez-Lopez is eminently qualified for the position and has an impressive history of public service. Dr. Martinez-Lopez graduated from medical school in 1978. He retired from the U.S. Army as a major general and was the first Latino to head the Army Medical Research and Materiel Command at Fort Detrick, MD. He is the former director of the Army's worldwide medical research, acquisition, and logistics program, overseeing a vast research portfolio that included cancer, trauma, infectious diseases, aviation medicine, and telemedicine research.

Dr. Martinez-Lopez also directed the premier national biological and chemical defense laboratories and research program and led the development of the National Biodefense Campus at Fort Detrick.

He served as the commanding general of the Center for Health Promotion and Preventive Medicine, where he directed a worldwide public health organization and was responsible for preventive medicine, health promotion and wellness, global medical surveillance, occupational and environmental health, and health risk communication.

Dr. Martinez-Lopez has an extensive military and medical background that makes him eminently qualified to fill this critically important role. But Republican obstruction has left us without a confirmed Assistant Secretary for Health Affairs for nearly a year, endangering the health of our servicemembers and the safety of our Nation.

Unfortunately, Dr. Lopez is not the only critically important civilian DOD nominee Senate Republicans are blocking. Just yesterday, Chairman REED came to the floor to ask for unanimous consent on the nominees to serve as inspector general of DOD, Assistant Secretary of the Navy, and a judge of the U.S. Court of Appeals for the Armed Forces.

This unprecedented obstruction must end, and we must fill these important positions, including Dr. Martinez-Lopez, as quickly as possible.

I urge my colleagues to confirm this nominee.

Mr. President, I ask unanimous consent that the Senate consider the following nomination: Calendar No. 779, Lester Martinez-Lopez, of Florida, to be an Assistant Secretary of Defense; that the Senate vote on the nomination without intervening action or debate; that the motion to reconsider be considered made and laid upon the table; and that any statements related to the nomination be printed in the RECORD.

The PRESIDING OFFICER. Is there objection?

The Senator from Kansas.

Mr. MARSHALL. Mr. President, reserving the right to object, I rise in objection to this nominee due to his support of President Biden's irrational and now proven foolish vaccine mandates for our military.

Last August, the Biden administration imposed a COVID–19 vaccine mandate across the entire military. This led to the expulsion of thousands of qualified, honorable servicemembers who elected not to receive the vaccine. This DOD mandate failed to account for immunity to the virus many troops gained through natural infection, which we now know is equal to or greater than the effectiveness of the vaccine. The mandate also failed to account for the fact that these men and women are our bravest and healthiest Americans, with strong immune systems.

Recently, we learned that the Army cut roughly 60,000 National Guard and Reserve members from pay and benefits for refusing to take the COVID vaccine at the beginning of July. This decision was made at a time when more than 30 percent of its recruitment slots are not fulfilled.

The recruiting crisis has gotten so bad that the Army is now placing enlistees who exceed body fat standards into a dietary and exercise program in order to lose weight. This manpower shortage could result in undermanned units and potentially longer deployments as well as greater dependence on National Guardsmen to meet mission goals.

These personnel shortages are clear and obvious, and they are getting worse. Yet the ideologues in charge of this administration refuse to drop the vaccine mandate for the military. There is no longer any rational basis to persist in this demand other than as a deliberate campaign to punish dissenting opinions and oppress political enemies.

The Department also appears to be going out of its way to deny religious accommodations for our troops. More than 24,000 members across the branches have submitted religious accommodation requests. Almost all have

been rejected. The Air Force approved fewer than 130 of the more than 9,000 religious requests submitted by airmen.

It is time for this administration to do what is morally right and patriotic, what is decent and sensible and prudent for the readiness of our military, and drop this vaccine mandate. Further, the Defense Department should reinstate those servicemembers who have been expelled for this reason, return them to their previous positions, and provide backpay for time missed.

But until they do so, I will continue to object to this nominee. And, therefore, I object.

The PRESIDING OFFICER. Objection is heard.

The Senator from Hawaii.

Ms. HIRONO. Mr. President, very briefly, the fact that my colleague is objecting to the consequences of not adhering to the requirement for vaccination is not within the purview of Dr. Lester Martinez-Lopez. So, therefore, their objection as to this particular nominee is misplaced and, in my view, irrelevant.

I again call on my colleagues to enable this nominee to come forward under unanimous consent.

VOTE ON PRESSMAN NOMINATION

The PRESIDING OFFICER. Under the previous order, the question is, Will the Senate advise and consent to the Pressman nomination?

Ms. HASSAN. I ask for the yeas and nays.

The PRESIDING OFFICER. Is there a sufficient second?

There appears to be a sufficient second.

The clerk will call the roll.

The bill clerk called the roll.

Mr. SCHUMER. I announce that the Senator from Illinois (Ms. DUCKWORTH), the Senator from Illinois (Mr. DURBIN), the Senator from Vermont (Mr. LEAHY), the Senator from West Virginia (Mr. MANCHIN), and the Senator from Vermont (Mr. SANDERS) are necessarily absent.

Mr. THUNE. The following Senators are necessarily absent: the Senator from North Carolina (Mr. BURR), the Senator from Oklahoma (Mr. INHOFE), the Senator from Alaska (Ms. MURKOWSKI), and the Senator from Nebraska (Mr. SASSE).

The result was announced—yeas 61, nays 30, as follows:

[Rollcall Vote No. 274 Ex.]

YEAS—61

Baldwin	Crapo	Merkley
Bennet	Feinstein	Moran
Blumenthal	Gillibrand	Murphy
Blunt	Graham	Murray
Booker	Hassan	Ossoff
Brown	Heinrich	Padilla
Cantwell	Hickenlooper	Peters
Capito	Hirono	Portman
Cardin	Kaine	Reed
Carper	Kelly	Risch
Casey	King	Romney
Collins	Klobuchar	Rosen
Coons	Luján	Rounds
Cornyn	Markey	Schatz
Cortez Masto	McConnell	Schumer
Cramer	Menendez	Shaheen
Sinema	Toomey	Whitehouse
Smith	Van Hollen	Wyden
Stabenow	Warner	Young
Tester	Warnock	
Tillis	Warren	

NAYS—30

Barrasso	Grassley	Marshall
Blackburn	Hagerty	Paul
Boozman	Hawley	Rubio
Braun	Hoeven	Scott (FL)
Cassidy	Hyde-Smith	Scott (SC)
Cotton	Johnson	Shelby
Cruz	Kennedy	Sullivan
Daines	Lankford	Thune
Ernst	Lee	Tuberville
Fischer	Lummis	Wicker

NOT VOTING—9

Burr	Inhofe	Murkowski
Duckworth	Leahy	Sanders
Durbin	Manchin	Sasse

The nomination was confirmed.

The PRESIDING OFFICER (Mr. VAN HOLLEN). Under the previous order, the motion to reconsider is considered made and laid upon the table, and the President shall be immediately notified of the Senate's action.

The majority leader is recognized.

LEGISLATIVE SESSION

Mr. SCHUMER. Mr. President, I move to proceed to legislative session.

The PRESIDING OFFICER. The question is on agreeing to the motion.

The motion was agreed to.

EXECUTIVE SESSION

EXECUTIVE CALENDAR

Mr. SCHUMER. Mr. President, I move to proceed to executive session to consider Calendar No. 1068.

The PRESIDING OFFICER. The question is on agreeing to the motion.

The motion was agreed to.

The PRESIDING OFFICER. The clerk will report the nomination.

The senior assistant legislative clerk read the nomination of Elizabeth Wilson Hanes, of Virginia, to be United States District Judge for the Eastern District of Virginia.

CLOTURE MOTION

Mr. SCHUMER. Mr. President, I send a cloture motion to the desk.

The PRESIDING OFFICER. The cloture motion having been presented under rule XXII, the Chair directs the clerk to read the motion.

The senior assistant legislative clerk read as follows:

CLOTURE MOTION

We, the undersigned Senators, in accordance with the provisions of rule XXII of the Standing Rules of the Senate, do hereby move to bring to a close debate on the nomination of Executive Calendar No. 1068, Elizabeth Wilson Hanes, of Virginia, to be United States District Judge for the Eastern District of Virginia.

Charles E. Schumer, Christopher Murphy, Tammy Baldwin, Tina Smith, Christopher A. Coons, Elizabeth Warren, Jeanne Shaheen, Jeff Merkley, Alex Padilla, Richard J. Durbin, Jack Reed, Gary C. Peters, Edward J. Markey, Sherrod Brown, Tim Kaine, Ben Ray Luján, Mazie K. Hirono.

Mr. SCHUMER. Finally, I ask unanimous consent that the mandatory quorum call for the cloture motion filed today, July 28, be waived.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. SCHUMER. I yield the floor.

The PRESIDING OFFICER. The Senator from Texas.

INFLATION REDUCTION ACT

Mr. CORNYN. Mr. President, a few weeks ago, the fate of the CHIPS Act, our collective effort to shore up the vulnerable semiconductor supply chain, was in limbo. Republicans said we would not move forward with what was then known as USICA, the U.S. Innovation and Competition Act, while Democrats were crafting a partisan reckless massive tax and spending bill behind closed doors.

Then Senator MANCHIN, the Senator from West Virginia, made a decision that angered most of his Democratic colleagues—he slammed the door on the climate and tax provisions and reconciliation. He said:

Until we see the July inflation figures—

Which we haven't seen yet—

until we see the July Federal reserve interest rates, then let's wait.

He noted that families were struggling to buy such essentials as gasoline and groceries and added:

I can't make that decision basically on taxes of any type.

That was what I will call the old Joe.

After we received assurances privately from some Senate Democrats, including the staff of the Senate majority leader, that the tax and climate provisions were off the table, we were able to move forward with USICA and the funding of this vulnerable semiconductor supply chain that is an important part of the bill that the House is voting on today.

So Republicans and Democrats went to work, negotiating in good faith to reach an agreement because we recognized that the vulnerability of our semiconductor supply chain was an economic and national security existential threat because 90 percent of the advanced semiconductors in the world that power everything from your cell phone to the F–35, to the Stinger or the Javelin missiles that are being used in Ukraine today—90 percent of those come from overseas, and the United States makes zero percent of them. That was the vulnerability and the risk we were exposed to, so that is why we worked so hard on a bipartisan basis to pass what used to be called Endless Frontier. I guess it has had about four or five different names so far, but it started, in my mind, with the CHIPS for America Act that Mr. WARNER, the Senator from Virginia, and I introduced in June of 2020.

So we all celebrated with a bipartisan press conference just in the LBJ Room over here, but then shortly after that bipartisan announcement, we learned some astonishing news: The climate and tax provisions apparently

were never off the table despite what we had been told.

Apparently, Democrats—specifically, the majority leader and Senator MANCHIN—just moved those discussions out of the public eye, into a secret back room. And I pretty much believe that other Democratic colleagues were not clued in on those negotiations. That is my impression. It was a secret deal between the majority leader and Senator MANCHIN.

Well, as I said, the CHIPS Act was part of this larger China competitiveness bill passed around 1 o'clock, and it was just 4 hours later that Senator MANCHIN sent out a press release that ''Build Back Broke'' was now on track. After saying repeatedly he would not support such reckless policies, he has done an Olympic-worthy flip-flop, and there is simply no denying it.

Let me talk about the new JOE.

It simply can't be overstated how dramatic this reversal is. Democratic Senators called me and texted me yesterday after Senator MANCHIN's announcement.

One said:

I am so shocked and upset.

Another said:

I am appalled.

A member of the President's Cabinet said:

I hope you know and trust that I had absolutely no idea this was going on.

Just 2 weeks ago, Senator MANCHIN said he wouldn't support the climate policies and tax increases out of fear that it would fan the flames of inflation.

Last month, as we will recall, inflation hit a new four-decade high. Everyday expenses for food, groceries, and other necessities of life were up more than 9 percent from just a year ago. Our colleague from West Virginia said he told the Democratic leader it would be ''wrong'' and ''not prudent'' to move forward while inflation was at a record high. Unfortunately, it didn't take long for that sense of fiscal responsibility to fade.

I don't know the details about the secret deal between Senator MANCHIN and Senator SCHUMER that resulted in this reversal, but I have to say, it was ugly. Now Senator MANCHIN not only supports the ''Build Back Broke'' bill, he now said it is his proposal—he, in effect, wrote it—and it includes the same policies that he previously opposed.

Tax hikes on working families and small businesses, Green New Deal climate policies, socialist price controls on prescription drugs, things like subsidies for wealthy purchasers of electric vehicles—forget the fact that somebody who can't afford an electric vehicle, who has to drive an old clunker, perhaps, or buy a used car—they are the ones subsidizing wealthy people buying electric vehicles—it is all in there.

Democrats could not have picked a worse time to push this reckless, irresponsible bill. This morning's news on the state of the economy confirms what millions of Americans have known for months: that the Biden recession is officially here. Our economy is not just stuck in the mud; it is sinking. Families and small businesses deserve better than a toxic combination of higher prices and feeble economic growth. Instead of helping the people survive this recession, our Democratic colleagues want to push them even deeper into the hole.

In 2008, Senator SCHUMER himself, the majority leader, said that raising taxes during a recession was a bad idea.

President Obama said exactly the same thing. In 2009, President Obama—in the aftermath of the great recession due to the financial crisis in 2008—President Obama said virtually the same thing that Senator SCHUMER said:

The last thing you want to do is raise taxes in the middle of a recession.

And that is exactly where we are.

The following year, in 2010, Senator MANCHIN agreed with Senator SCHUMER and President Obama. He said:

I don't think during a time of recession you mess with any of the taxes or increase any taxes.

That is the old JOE. That is the same Senator who is now proposing to raise taxes on families in the middle of a recession.

Now, here is the real joke, but I guess the joke is on all of us: They are calling it the Inflation Reduction Act. What an insult to the intelligence of the American people. Do they think anybody will be fooled? Do they think the American people are so stupid that they will believe this is an honest attempt to address inflation? There is not a chance. This proposal is a wolf in sheep's clothing. Our Democratic colleagues can try to rebrand the ''Build Back Broke'' bill that they tried to pass earlier this year all they want, but it is filled with the same rotten policies that will hurt families, small businesses, and energy producers, while the President, by the way, goes to Saudi Arabia hat in hand, asking the leader of the Kingdom of Saudi Arabia to produce more oil overseas rather than encourage domestic production here in America.

If this bill were to pass, it would eliminate any chance we had of escaping the recession policies that Democrats have landed us in.

Families are being crushed by the worst inflation in four decades. For every dollar you have, it is worth 91 cents in purchasing power because of the broken policies of the Biden administration. But it is not the politicians who pay the price; we are doing just fine. It is the working families all across this country who are paying the price for Democrats' war on American energy, for example. And they are sick and tired of being told by Washington Democrats that you can tax and spend our way out of this mess.

I have some bad news: If the Democratic leader can manage to keep all 50 Democrats on board, it is going to get worse. Our only hope is that a single Democratic Senator will oppose this massive, irresponsible bill, and it only takes one in a 50–50 Senate.

Not only will this bill have a devastating impact on the American people, it will absolutely paralyze this Chamber.

There have been recent discussions about, well, amidst polarization, there is possibility for bipartisan cooperation, and I have been proud to be a part of some of that bipartisan cooperation. I think we have done some important things for the American people.

But the Senate functions on trust. There are only 100 of us, and the relationships and the confidence that we have that when somebody looks you in the eye and tells you something, that they are going to stick with it, is important to negotiating in good faith and building consensus that is necessary to pass legislation. That is the only way we can pass legislation—work in a bipartisan, candid, good-faith way to get things done, like our mental health and school safety bill recently. That trust was eviscerated yesterday.

Senators MANCHIN and SCHUMER did not draft this 725-page bill in the 4 hours between the passage of the CHIPS Act and Senator MANCHIN's press release. They have been working on this the entire time, when they told us it was off the table. How is this Chamber supposed to function if we don't have at least some modicum of trust in what our colleagues tell us? How can we negotiate in good faith, compromise where necessary, and get things done together after the majority leader and the Senator from West Virginia pull a stunt like this?

The American people are sometimes left to wonder whether our institutions, including this one, can work anymore. Well, I can only speak for this Senator when I say: This betrayal is an absolute declaration of political warfare.

For years, many of our Democratic colleagues have claimed that the Senate is broken because of the filibuster. They act as though a procedural vote with the 60-vote threshold is an end of democracy as we know it. But look where we are now. The Democratic leader is crafting secret deals in back rooms. He is keeping members of his own political party in the dark, such that they have to apologize to people like me who have been willing to trust that what people say—that their word is their bond.

Look, if somebody can't agree with me, I would prefer they tell me outright, and then we can figure out where we can agree if we can't agree in some areas. But to look you in the eye and tell you one thing and then to do another is absolutely unforgiveable.

Now the majority leader is trying to abuse the rules of the Senate to pass a $700 billion partisan spending bill in the next week, in the next matter of days—a bill that was only announced in a press release yesterday.

The Senate is not broken, but I am afraid, if this stunt pays off, Democrats are about to break it.

The PRESIDING OFFICER. The Senator from Idaho is recognized.

NATO

Mr. RISCH. Mr. President, I rise today, colleagues, to urge the Senate to proceed quickly—quickly—to the consideration of the accession protocols for Finland and Sweden to join NATO.

Once again the Senate has been given the responsibility of offering advice and consent to ratifying the accession of two new members to the North Atlantic Treaty Organization. We have been advising aggressively for quite some time, and it is time now to move to the consent portion of getting this done. NATO is the most successful political-military alliance in history. It helped bring down the Soviet Union, and it united Europe so it could rebuild economically.

The Senate has the opportunity to expand NATO and bring both Finland and Sweden into the alliance. Over the years, these countries never sought membership. They were content to just partner with NATO, but they did not join. However, Putin's attempt to rewrite the security landscape in Europe with his invasion of Ukraine convinced the people of Finland and Sweden that they should become formal members of NATO. Why wouldn't they?

After the past 2 weeks—and really the entire summer—the Senate Foreign Relations Committee has carefully considered and discussed the prospective membership of our longtime partners, Finland and Sweden.

The Senate has already shown bipartisan support for Finland and Sweden joining NATO. As my colleagues and I have laid out in a resolution of support in public statements at Senate Foreign Relations Committee meetings and hearings in June and in the committee report submitted to the floor along with the protocols, Finland and Sweden will make model members of the NATO alliance.

Once approved by all 30 current members of NATO, these two nations will become integral members of the alliance. Both have strong and capable militaries and are already net contributors to the security alliance. Although militarily unaligned for decades, Finland and Sweden have long defended Europe's high north—a region becoming even more important with the competition from Russia and China in the Arctic.

Both have already demonstrated the interoperability and commitment necessary to join the alliance. Finland already spends more than 2 percent of its GDP on defense, and Sweden laid out its plan to reach that mark shortly—both requirements for joining NATO.

These countries also bring additional capabilities to NATO. Both are intimately familiar with the north and east flank of Europe. Finland also trains U.S. forces in cold weather operations and the Finnish Navy is especially suited to operate and defend the Baltic Sea, where some Navy ships have less maneuverability, being a blue-water Navy.

They have both participated in NATO missions in Afghanistan, the Balkans, and Iraq. In fact, these countries operated with less restrictions on their militaries in these missions than other NATO members. Finland and Sweden also share our democratic values, have strong military and defense industries, and extensive experience in Russian matters.

One only has to take a look at a map to see the benefits of adding Finland and Sweden to NATO. With their proximity to the Baltic States—the Baltic States, which are small—they are well-positioned to provide support, if needed, to our current Baltic NATO allies, just as the rest of NATO would if the Baltic States have a problem with Russia.

Adding these two nations as full members to our alliance will further deter any temptation by Russia to engage in military adventurism in the Baltic area or the Arctic regions. Although my sense is Russia has already learned this year of the ineptitude, clumsiness, and just plain inabilities of its way-overrated military, which can't even win against a small, substantially less-equipped adversary, even when Russia used barbaric medieval tactics. Russia's efforts have been pitiful and, at the same time, despicable.

Many Senators have already given firm statements of support for this succession, and we deserve the timely chance to make our support known through a vote. Let's get on with it.

There are few things more important than voting on accession for Finland and Sweden to NATO. This accession process is an important chance for the United States to demonstrate leadership in NATO and commitment to its modernization and, very importantly, NATO's future.

When the shooting is over in Ukraine, it won't be over. There is no doubt that NATO is going to take a long, hard look at what it is doing, what its priorities are, and, very importantly, hardening the eastern and northern flanks.

Since this wave of NATO enlargement was first announced, the Senate Foreign Relations Committee has carefully consulted and coordinated with our NATO allies, the governments of Sweden and Finland, with the administration, and within the Senate itself to ensure this process can move as efficiently and quickly as possible. I can't count the number of meetings and conversations we have had in this regard.

We now have only one step left until ratification, and it makes no sense to dillydally at this stage. There should be no issue with moving this treaty as quickly as possible. The Senate's quick ratification of Finland and Sweden as new members of NATO will both send a strong message of transatlantic unity to a now foundering Russia and will strengthen NATO against Russia's growing threat.

I yield the floor.

The PRESIDING OFFICER. The Senator from Delaware.

CHIPS ACT OF 2022

Mr. CARPER. Madam President, I rise today to discuss the CHIPS and Science Act, a bill approved by the Senate yesterday and, I am told, just approved literally in the last several minutes by the House of Representatives, a bill that I am proud to be able to support, along with many of my colleagues.

This bipartisan legislation will invest in our Nation's semiconductor industry, strengthen America's manufacturing competitive edge over foreign competitors, and reduce supply chain burdens that exist with respect to our country and our people. Yesterday's vote marked an important step in providing America the authority to set the rules of the road for a 21st-century economy.

I was pleased to join so many of our colleagues in support of this bill so that States like Delaware and like Nevada can continue to punch above our weight in the global economy for years to come.

We probably all heard the saying before: ''Today, they don't make cars like they used to.'' Well, some of my colleagues know and many folks in Delaware know I can attest to that personally. For two decades, I drove a 2001 Chrysler Town and Country minivan, a silver one, affectionately called by many the Silver Bullet. It had 600,000 miles on it.

When I went to the DMV and took with me the young man who wanted to buy it, they asked me how much I was going to sell it for.

I said: $1.

The lady there at the desk at the DMV said: Well, what you have to do, you have to turn it over and sign on the back of title ''$1.''

So I wrote ''$1,'' and I signed the document, as did the purchaser.

Then the lady at the DMV said: There is a transfer fee you have to pay for the vehicle.

I said: What is it?

She said: 3 percent.

I said: 3 percent of $1?

She said: Yes.

I pulled a nickel out of my pocket and gave it to her and said: Keep the change.

But my old minivan is more popular and famous in my little State in a lot of places than I was.

But anyway, that vehicle had seen every corner of the First State, with some 600,000 miles to her name. She carried ''Carpertown'' staffers, constituents, family members, and even a future President—even a future President.

When it came time to retire her early last summer, through anguish and heartache, I opted for a slight upgrade: a red Tesla Y that maybe someday will have 600,000 miles on it. We will see.

Let me tell you, though, they don't make cars like they used to. They make them a lot better, a whole lot better and a whole lot cleaner as well.

On top of being fully electric—and let me just say that 2, 3, 4 years ago, our selection of electric vehicles, low-emission, no-emission vehicles, was limited, very limited, and folks from Tesla were largely outside of the gate.

First, the people from GM had come up with a very good hybrid vehicle for a number of years, but it took a long time for us to actually get into the business—both domestic manufacturers and foreign manufacturers—of building and selling fully electric vehicles.

But on top of being fully electric, right when you step into these new cars, including the one I own, you see a world of technology in front of us—a state-of-the-art touchscreen GPS system, backup cameras, digital heating and air-conditioning controls. It is a far cry from my own minivan that drove so many miles.

The odometer actually died on me at 500,000 miles. I don't know exactly how many miles it did have, but it had a lot. But at 500,000 miles, we went to Dover Downs, the Miracle Mile, the Monster Mile, where they do auto racing and NASCAR racing. They let me drive my minivan around the track as fast as it would go. Holding the starter flag out the window, I thought it was going to rip my arm off, but it didn't. But it didn't.

One ride in a car like my new one, and it is clear, automotive technology and the American economy have drastically advanced in the last 20 years. That is thanks, in part, to the advances of semiconductor technology or, as we sometimes say, chips.

Now, folks at home might have read about chips or may have heard about some connection with semiconductors and our supply chain woes on the nightly news, but they still wonder what that has to do with their everyday lives. So here it is, a little bit of chips 101, a little bit of chips 101 before I get in my new vehicle and head for the Delaware State Fair as fast as I can go—legally, legally.

Chips 101: a semiconductor, oftentimes referred to as a chip, is commonly used material in tech manufacturing made of elements like silicon that are valued for their ability to manage the flow of electricity.

In our technology, a chip as small as a puzzle piece or even smaller than a fingernail is vital to creating the phones that we carry in our pockets or in our purses, the washing machine in our basements, the television in our family rooms, and, yes, all that technology in our new vehicles.

But more than that, the semiconductors have a vital role to play in some of the medical equipment that monitors our health and in the weapons systems that protect our country.

But after 2 years of the COVID–19 pandemic and economic shock, unpredictable shutdowns, along with labor shortages and logistic failures, have led to severe supply chain constraints. These supply chain issues have caused the same inflation that Americans have seen play out in empty shelves at your local grocery stores or in new technology that they have saved up for years to buy but are having a hard time finding on the market as of late.

Just last month, Senator JOHN CORNYN and I chaired a Finance Trade Subcommittee hearing, and it was a hearing on supply chain resiliency. We did it in order to take a look at what is causing supply chain backlogs and hurting American consumers.

We heard that day from the experts about the need for greater investments in semiconductor manufacturing here at home and about the vulnerabilities we face when companies thousands and thousands of miles away—maybe on the other side of the world—can determine the economic success of entire American industries. Because our manufacturing sector relies on this technology, we are beholden to the companies that produce semiconductors and we are hamstrung—hamstrung—by the delays that slow these companies down.

That is increasingly a problem when America's share of global chips production drops from 37 percent—37 percent—in 1990 to just 12 percent today or when more than 75 percent of chips are manufactured in Asia on the other side of the world. This reliance on foreign manufacturers makes our economic and our national security vulnerable to geopolitical shocks from halfway around the planet.

And that is a problem for companies in my State of Delaware and your State of Nevada, Madam President. But one of the companies that I would mention from our State is Hologic, and they are located in Newark, DE, near the University of Delaware, the northern part of our State. They rely on a reliable stream of chips to produce mammography machines. For Hologic, a shortage of chips means not just slower production of new mammography machines but a struggle to replace and repair old machines that women across our country rely on for vital preventive care to detect breast cancer.

After more than 2 years of this pandemic and cancer screenings all too often delayed for months, that means more clinics and doctors' offices with outdated equipment will offer limited screenings, and that means more women in States like mine and like yours across America will have to put screenings that could save their lives on the back burner.

That is just one very serious, real-world example of why these investments are critical to families and they are critical to businesses up and down the ''First State'' and across the United States. So, Madam President, we can and we should take action to address some of the weaknesses in our economy and to compete with countries like China in the process.

That is why I am proud to support the CHIPS and Science Act. It is a much needed investment for the manufacturing of semiconductors and the development of other critical technologies in our country, and it will provide tax incentives to make our tech sector the envy of the world once again.

By investing in American-made chips, we can reduce costs of technology for Americans, improve supply chain reliability, and we can create new opportunities and jobs for a lot of American workers.

And by investing in the National Science Foundation and the American innovation hubs, we have an opportunity to jump-start American innovation and growth once again.

This legislation will make life a bit easier for businesses and consumers across America, from car dealerships in Delaware, on the east coast, and in your State of Nevada, out there in the middle of the great West—from car dealerships in Delaware that don't have enough inventory to meet customer demands to manufacturers struggling to access critical parts and inputs.

As Secretary of Commerce Raimondo and the Defense Secretary have made clear over the last couple of weeks, including in a briefing that they held with us, this bill will bolster both our economic and our national security—but not only that. To not act, to not invest in American jobs and manufacturing, as Secretary Raimondo described it, would cause—her words—''irreparable harm to the United States economy and the United States military operations''—because when America isn't in the driver's seat, someone else is taking the wheel, and Americans may well fall behind as a result.

So we have not just an opportunity, I think we have an obligation to American consumers and to our Nation's workforce to invest right here at home. The action we are taking should be the beginning rather than the end of our efforts to strengthen, once again, American economic competitiveness.

There were many bipartisan ideas on the table through the debate over this legislation, some ideas that didn't make it into the final bill. Many of them are worthy of our future consideration. And as the chairman of the Finance Subcommittee on International Trade that I lead with Senator CORNYN, I will continue advocating for greater economic engagement with our allies across the globe and especially—especially—in the Asia-Pacific.

There is more we can do. I will say that again. There is more we can do—and must do—to strengthen supply chain resiliency, combat unfair trade practices, and support the American worker and innovation.

I was proud to vote in favor of the CHIPS and Science Act because, first and foremost, I serve the people of the ''First State.'' And yesterday's vote will mean investments that create jobs

for Delaware workers and States around us. We have a lot of people in other States who work in Delaware even though they live in Pennsylvania or New Jersey or in Maryland.

Yesterday's vote will mean support for the technology that keeps our loved ones healthy and safe, and it will also mean more affordable goods, delivered faster, to families in the ''First State'' and every other State.

I want to commend the House of Representatives for the action that they took today in passing this legislation. And when I leave here today, I am going to go out and get in that red sports car that I drive these days. And it has incredible music, just incredible music, as you probably know. Most cars have that these days. And I think that, first, I am going to head for the Delaware State Fair, which I love. The first time I ran for office, that was sort of like where I announced it a million years ago.

I will probably pick out some music to listen to, and the first song, I think, is a Willie Nelson song. It is a Willie Nelson song: ''On the Road Again.'' And I am going to get on the road again and head for the ''First State,'' for the Delaware State Fair, and look forward to meeting a lot of people.

I wish you a great weekend. To my colleague DAN SULLIVAN from Alaska, the marine colonel who is about to take the floor, have at it. Danny, it is all yours.

I yield the floor.

Mr. SULLIVAN. Madam President, I want to compliment my colleague from Delaware, whom I enjoy working with very much on the EPW Committee.

Normally at this time, the end of the week, I talk about the Alaskan of the Week. So stay tuned for next week when we continue that series. It has been going on for 6 years.

NEPA

Madam President, today, actually, I want to talk about the Americans of the century, the Americans of the century. This is an iconic, iconic picture of the men—and, of course, women—who built our great Nation: the working families, the union members who built our great Nation, won World War II.

This is, by the way, the Empire State Building. Some of our workers built that. I want to talk about that here in a minute. They are having a little bit of lunch. But these are the workers who built America, certainly helped us win World War II: the machinists, electricians, welders, builders.

And, Madam President, next week, my colleagues are going to be put to the test, and it is going to be a simple test. It is a question that is a really important one right now: Where do you stand? Do you stand with the working men and women of this great Nation, the ones who built our country and their incredible heritage of building America, or do you stand with the coastal elites—represented by this individual—who are actually focused on not building the country but in many ways shutting it down?

Well, I will tell you where I stand. I stand right here with the men and women who have built this great Nation.

Here is what is going to happen next week. I am bringing together a joint resolution of disapproval under the Congressional Review Act, what we call a CRA, that will be a simple vote to nullify a recent Biden administration regulation that clearly is going to make it harder in America to build infrastructure projects—to build buildings, to build energy projects. These regulations will waste taxpayer dollars, but the biggest thing they will do is they will prevent workers from working and building the country.

So that is it. We are going to have a simple vote on whether you stand with the people who take a shower before work or the people who take a shower after work, the people who spend their day holding tools to build things or holding lattes—the people with dirt under their fingernails.

The vote will answer the question posed by the late folk singer Pete Seeger: Which side are you on? Now, right now, there are 50 Republican Senators who are on the side of the working men and women. They cosponsored my resolution. So let's talk a little bit about the background of what we are going to vote on next week.

This is a very famous structure in America, the Hoover Dam, and it is part of a great American tradition that we are all proud of—every single American—that we used to build big things: our roads, our dams, our ports, our bridges, our pipelines. We built engineering marvels in the world, a source of immense pride for all Americans. The Hoover Dam—look at that—5 years—actually, less than 5 years—to build that dam. The Empire State Building, you just saw a picture of men and women building that. It took 410 days to build the Empire State Building. The Pentagon, the biggest office building in the world: 16 months.

Let me talk a little bit closer to home. The 1,700-mile Alaska-Canada Highway, through some of the world's most rugged terrain: 11 months. We did that. America did that. Workers did that. The Trans-Alaska Pipeline—think of this: 70,000 sections of 48-inch-wide pipe, joined and laid—70,000 sections—across three mountain ranges, 800 riverbeds, tundra, forests, lakes, from the Arctic Ocean to the Pacific—800 miles—3 years. Incredible.

The American worker can build anything, can build anything. And then the engineering. We put a man on the Moon in less than 10 years. We used to do big things, big infrastructure. And the men and women of America have always been the best, most productive workers in the country.

Well, that is no longer, unfortunately, the legacy of America. And here is part of what is going to happen next week. Let me talk a little bit of a background issue here. And I know some of my colleagues aren't going to like to hear it, but the Democratic Party was once home to these great American workers. That is true.

My family was part of this tradition—Irish-Catholic immigrants, Democrats. My great-grandfather Frank J. Sullivan was one of the founding members of the IBEW, International Brotherhood of Electrical Workers. He passed on the values of hard work throughout his family. And the Democratic Party long supported the union members, the workers who built not just America but the middle class. And I think that is a proud tradition. I think that is a proud tradition—certainly something that my family was part of. But that has been abandoned.

Right now, the focus is much more on coastal, progressive elites and what they want versus what these men and women want. That was yesterday's Democratic Party. You are seeing headlines more like this: ''The Democrats' Working Class Voter Problem.'' That is a headline from the Democratic ally blog titled ''The Liberal Patriot.''

Newsweek: ''Democrats Have Forgotten the Working Class.''

Here is a doozy from the Economist recently: Democrats in America are realizing they must moderate or die.

Now, some attribute this problem to cultural issues. As James Carville said ''Wokeness is a problem.''

Cultural issues, wokeness, and all that implies are certainly issues driving the working class away from the Democratic Party. But I believe the problems that the Democrats are having with the working class run much deeper than wokeness. I believe they are structural. And at the end of the day, they are pocketbook issues. One issue that impacts everybody, but especially America's workers, is the regulatory system—the permitting system that we have in America.

It hurt so much of our country. But I will tell you who it really hurts: the men and women who build things. They are on the ground. They see their projects being delayed when they are killed. They are the ones who get the pink slips when there is endless litigation on a resource development project in Alaska. They are the ones worrying about feeding their families because they don't have good work because they can't build things anymore. They are the ones who are attacked by the far left because they produce things like American energy, which we all need.

We live in a nation now that is increasingly divided into two countries: one of builders and doers, of working men and women, of working families, and the other side that soaks up the spoils of those workers and then figures out ways to make their job even harder, oftentimes resulting in putting them out of work altogether.

And I have seen this time and time again in my State—in my State. When

these men and women try to build things—and there is a choice with my Democratic colleagues between the coastal elites who want to shut things down and the men and women in America who want to build things—unfortunately, the default position for them is the coastal elites, forsaking the working men and women of our country.

So why am I so animated by this? It is because our great Nation that built so many great things is now caught up in redtape. It is now caught up in redtape. So I want to talk a little bit more about my resolution and the vote we are going to have next Wednesday, or next Tuesday. The National Environmental Policy Act was a good idea when it passed in late 1969. It required environmental impact statements when things were being built so the public could be engaged.

That act, called NEPA, resulted in people participating in the permitting process but not overburdening it. So normally, a NEPA Environmental Impact Statement—an EIS—at the beginning, when it was first passed, would take less than a year, a couple hundred pages. That was it.

Now you look at the system in America. To try to build things, the average EIS takes 4 to 6 years to just complete—4 to 6 years to just complete. And it usually costs several million dollars just to build anything in this country. That wasn't the purpose of NEPA. We are killing ourselves as a nation with our inability to build infrastructure because we are tangled up in redtape.

In his recent reporting, the progressive New York Times writer Ezra Klein looks at the cost of building things in America relative to other industrialized countries. Klein writes that Japan, Canada, and Germany build a kilometer of rail for $170 million, $254 million, and $287 million, respectively. That seems like a lot, until you get to the United States. One kilometer costs $538 million, way more than any other industrialized country. Delays are costs. Of course, we know that.

According to the GAO—and this is a study several years ago; I am sure it is much worse—a new U.S. highway construction project, just to build a highway normally takes 9 to 19 years.

Come on, America. We built the Alcan Highway, 1,100 miles, in 11 months.

This is a topic that I am very passionate about. It sounds kind of geeky. Permitting, rules, regulations—it is the core of our economy, and it is the core of what is keeping so many working families down.

Let me give you a couple of other examples. The new—not new now—recently expanded runway at the Seattle-Tacoma Airport took about 3 years to build. We had a hearing on the Commerce Committee. I asked the head of the Sea-Tac Airport, ''How long did it take you to get the permits before you could build that?'' New runway, Sea-Tac needs it. He looked at me, and he said ''Senator, 15 years.''

Fifteen years to get permits to do a runway expansion at Sea-Tac Airport.

He actually said:

> By the time we got the permits and the construction time, almost 20 years. I think that the ancient Egyptians would have built the pyramids by then.

This is what we are talking about. Every State, every city, every community sees this problem.

Let me give you a couple of other examples. The Gross Reservoir in Colorado, which is going to offer clean water to all the people of Colorado, has taken two decades—20 years—to get this project permitted. California's bullet train that they are still working on—approved in the late 1990s—is still not built because of permitting delays. The costs have gone from $33 billion to $105 billion.

The Mountain Valley Pipeline in Virginia and West Virginia, trying to transport natural gas—litigation is stopping that.

Of course, in Alaska, we are ground zero for a lot of this. The Kensington Mine right now is producing gold for our country. Hundreds of people are working there. The average wage is $110,000. Those are good jobs. Twenty years to permit that line, if you include the litigation—20 years.

Here is how James Callahan, great American worker, president of the International Union of Operating Engineers—the men and women who really build America, the operating engineers—put it in a letter supporting my resolution next week. You can see it right here. He nails it:

> Since its modest beginnings, NEPA has evolved into a massive edifice, capable of destroying project after project—

Destroying, not helping—

> job after job, in virtually every sector of the economy.

He goes on:

> Dilatory strategies employed by project opponents frequently exploit provisions in NEPA, weighing down projects, frustrating communities, and raising costs to the point that many applicants, whether public or private, simply walk away.

By the way, when I talk about the coastal elites—the radical environmental groups—that is their goal, to use NEPA to just kill projects. And they are really, really good at that.

So what happens, as James Callahan says—when that happens, when the applicants simply walk away—well, we know what happens. Work dries up. Layoffs happen. The dignity of work and hope that can lift entire communities dissipates. Families struggle. Communities struggle.

When we talk about good-paying jobs in our country, we are talking about so much more than men and women punching a clock. We are talking about the health of families, the pride in communities, the pride in our country.

Look at the pride of those men and women who built the Empire State Building, the pride of men and women who built the Alaska pipeline. We see it over and over again that communities without hope, without an economic future, without good-paying jobs, who get crushed by these burdensome regulations and groups that want to shut them down, are much more prone to experiencing violence, crime, succumbing to kinds of huge challenges like the opioid crisis.

And so these issues matter across the country. But, again, they matter to working families more than anyone.

So what are we going to do next week? Well, a surprise to me—and I must admit, it was a surprise; I came down here and talked about this a while ago—was that during the negotiations for the infrastructure bill that many of us voted on—I voted for it last year, in part because it had really good provisions—not as good as I would have wanted—but on permitting reform. These built on what I worked on with the Trump administration when they put out regulations as it related to building infrastructure that, by the way, was supported by millions and millions of Americans for the reasons I just talked about: streamlining permitting, getting projects online, not so costly.

So some of the NEPA reforms that we got in the infrastructure bill were things that we had built on during the Trump administration. Let me give you a couple of examples: one Federal agency in charge of all regulatory decisions, timelines on NEPA, limitations on the pages required by NEPA. These were commonsense reforms that we worked on with the Trump administration and some of which we got into the infrastructure bill.

So imagine, this is supposedly Joe Biden's top legislative achievement—4 months ago, kind of under the radar, the White House, the Biden White House—counts on environmental quality—put out new regulations.

And here is the Wall Street Journal's editorial on what these new regulations were meant to do. And anyone who has read them—and I encourage all Americans to read them—these regulations have one goal in mind: slowing down the ability to build American infrastructure, especially American energy infrastructure.

The new NEPA regulations from the Biden White House make it harder to build our country, when the President supposedly supported the infrastructure bill. I truly wonder if the President has any clue that his White House issued regs to undermine what we all viewed as a very important bipartisan achievement.

Now, I gave a speech a couple of weeks ago saying: How did this happen? How are we killing infrastructure on the sly through these regulations when, supposedly, this administration wants to build infrastructure, wants to support the working men and women of our country?

My view is like a lot of things. John Kerry, Gina McCarthy were probably behind it, but who the heck knows. But here is what I do know. The only people who like these rules—the rules that

are meant to slow down the building of American infrastructure—are certainly not the working men and women of America; it is the radical environmental groups, probably the trial lawyers. And I will give you another group that loves it when we do this to ourselves: the Chinese Communist Party. They look at us and go: Holy cow, these Americans can't get out of their own way. Nine years to permit a bridge. This is killing us in terms of competitiveness. Mayors don't like these rules.

So what we are going to do next week, my Congressional Review Act resolution is very simple. It says, we are going to rescind this Biden rule that is going to make it harder to build American infrastructure.

And here is the thing: Right now, we have a very big list of groups that are supporting my resolution. We got all the building trades of America; the operating engineers; the AFL–CIO of Alaska; the Laborers' International, LIUNA—the biggest construction union in America; and so many groups—farmers, independent business men and women. Dozens of groups are supporting our resolution to say we are not going to allow that. We want to build things. We want to build things.

President Biden likes to talk about his supposed blue collar roots. Well, I wonder where the President is going to be on my resolution because all the unions in America that build stuff are supporting it. Again, maybe he didn't even know his White House put it out there. Maybe he wants to support my Congressional Review Act resolution.

But I will tell you who this resolution is going to be really good for. It is going to be good for these men and women in America who built this country, who built this country.

I will end where I began. Next week, there is going to be a big vote here, a simple vote. I have 50 Republicans who cosponsored my resolution to get rid of the Biden administration regulation that is going to kill infrastructure. If you support the building trades and the labor unions who built America, you are going to vote yes on my resolution. If you support infrastructure for America and building it in a timely fashion, you are going to vote yes on my resolution. If you support American energy that we need so much in our country, that we have right here, that we don't need to import from Saudi Arabia or Russia or Iran or Venezuela, you are going to support my resolution. If you support the men and women who actually build this country, all of whom who are supporting my resolution, you are going to support my resolution.

But if you stand with the coastal environmental elites who want to shut down this country, shut down my State, shut down the economy, maybe you will vote the other way. Like I said in the beginning, it is going to be a test next week. Whose side are you on? Are you with these men and women and their heritage and their heroism who built this country, or are you going to be standing with this individual, the epitome of arrogant coastal elite, smugly telling Americans that they shouldn't build energy projects?

I know where I am standing next week. I am standing with the great men and women who built this country, the great men and women who continue to build this country, the great men and women who are supporting my resolution. And I sure hope all my colleagues vote the same way. This is an easy vote for America. This should be 100 to 0. That is the reason why.

I yield the floor.

The PRESIDING OFFICER (Ms. BALDWIN). The majority leader.

INFLATION REDUCTION ACT

Mr. SCHUMER. Madam President, it has been a momentous 24 hours here in the Congress.

A legislative one-two punch that the American people rarely see. A little while ago, the House voted to approve the largest investment in decades to lower costs, increase manufacturing, invest in science, and help fix the semiconductor crisis. The CHIPS and Science bill now goes to the President's desk after 3 long years.

And, last night, Senator MANCHIN and I announced an agreement on the Inflation Reduction Act of 2022, a bill that will take historic steps to lower costs, fight climate change, and make healthcare more affordable in this country.

Again, the past 24 hours have been a legislative one-two punch that Americans rarely ever see and which will benefit them immensely: first, a bill that will supercharge the American industry and now a bill that will fight inflation and mark a turning point in our fight against climate change.

This morning, I met with my Democratic colleagues to review the big wins contained in the Inflation Reduction Act of 2022, and we discussed our plan for passing it through reconciliation next week.

With the Inflation Reduction Act of 2022, this Senate majority will finally take on Big Pharma and lower prescription drug prices.

This Senate Democratic majority will tackle the climate crisis with the largest package on the climate ever. This Senate majority will ensure we close tax loopholes and make the wealthy corporations and individuals pay their fair share, and this Senate Democratic majority will fight inflation and reduce the deficit.

The Inflation Reduction Act is common sense; it is bold; and it is very much needed. For decades, many in Washington have promised to address these challenges. But where previous efforts have fallen short, Senate Democrats in this majority will move swiftly to deliver to the American people.

Now, there is so much to like in the Inflation Reduction Act. By a wide margin, this legislation will be the largest action on climate change ever passed by the Congress.

Like the creation of the EPA and the passage of the Clean Air Act half a century ago, this legislation will mark a turning point in our Nation's commitment to protect our planet for our children and our grandchildren.

Through this bill, we will at last put the United States on a path to roughly 40 percent emission reductions by 2030. And it will help us achieve climate justice for communities long left behind, especially communities of color. But that is not all, for many years, people in Washington—including President Trump, including the Republican Senate—promised to lower the cost of prescription drugs, but they failed to follow through.

Under this Senate Democratic majority, that is changing. Our proposal will finally lower the cost of prescription drugs by empowering Medicare—for the first time ever—to negotiate the prices of certain drugs in Part B and Part D.

We will prevent healthcare premiums from skyrocketing for millions of Americans in the coming months. And through it all, we will ensure that no small business or family making under $400,000 a year will see their taxes go up.

Republicans go on and on and on about how this is a tax on the American people. No, Republicans, you try to hide the truth. The truth is this bill will close tax loopholes exploited by the wealthiest Americans and largest corporations and will not touch Americans who make below $400,000 a year. Why don't you say that? Because you know your tax policies are so unpopular with the American people, which we proved in 2017. You tried the same shibboleth then. Oh, we are cutting taxes for the American people. We Democrats make clear to the American people, no, no, no, they were cutting taxes on the very wealthy. And by the time the 2018 campaigns rolled around, they didn't even mention it. We are going to do the same thing now. We are going to tell the truth.

Yes, we are raising taxes on very wealthy people and big corporations that pay no money, not on average Americans, and you are afraid to do that.

The American people want these tax reforms. They support making sure the ultrarich and big corporations play by the rules and pay their fair share. It is common sense. The American people know that.

So when Republicans fret and panic about taxes, the truth is what they really hate is the idea of increasing taxes on Big Business and those at the very top.

And they are afraid to admit to the American people that they know they are on the wrong side of the issue. As I said, Republicans should have learned their lesson in 2018 when the American people rejected their tax cuts for rich Americans.

We all saw what the results are, what happens when Republicans cut taxes for the ultrarich and corporations: It

fuels hundreds of billions in corporate stock buybacks, and since then, stock buybacks have only increased.

According to S&P, buybacks are forecast to reach a trillion dollars this year. The American people don't want a tax code that is skewed to the top 1 percent, which is what happened under Republicans, under President Trump when they had the majority.

Republicans really know that, so they, in fear—they distract and distort and ignore the fact that under our plan, small business and middle-class families making under 400,000 won't see their taxes go up at all.

It is the same thing for the deficit. For years, Republicans have howled at the Moon about lowering the Federal deficit, but when they were in the majority, they blew a $2 trillion hole in our deficit in order to pay for their gargantuan tax cuts to big corporations and the ultrarich.

The Democrats' proposal will actually lower the deficit significantly, which will go a long way to easing inflation.

If Republicans really care about fighting inflation, if they really care about lowering the deficit as they claimed, they should support our proposal, which would lower the deficit by hundreds of billions of dollars.

Now, at the end of the day, the American people want us to do a few commonsense things: Lower the cost of their daily expenses like healthcare, protect our planet for future generations, make sure everyone plays by the same rules and has a fair shot at achieving the American dream, and that is what the Inflation Reduction Act will do.

These are not easy matters, but we didn't come here to do easy things. To be sure, the work is not done. There is a lot we have to do in the coming days, but I am proud that right now we have a strong, bold package to move on, one that will lower inflation, fight the climate crisis, and help preserve America's place as a nation of immense opportunity into the 21st century.

Let us get to work and pass the Inflation Reduction Act of 2022.

LEGISLATIVE SESSION

MORNING BUSINESS

Mr. SCHUMER. Madam President, I ask unanimous consent that the Senate proceed to legislative session and be in a period of morning business, with Senators permitted to speak therein for up to 10 minutes each.

The PRESIDING OFFICER. Without objection, it is so ordered.

(At the request of Mr. SCHUMER, the following statement was ordered to be printed in the RECORD.)

VOTE EXPLANATION

● Mr. DURBIN. Madam President, I was necessarily absent for rollcall vote No. 273, had I been present for the vote I would have voted yea. I was necessarily absent for rollcall vote No. 274, had I been present for the vote I would have voted yea.●

THE BALTICS

Mr. GRASSLEY. Madam President, today is a very important date for the relations between the United States and the Baltic states of Estonia, Latvia, and Lithuania.

Today marks 100 years of continuous, uninterrupted diplomatic relations between our country and each of the Baltic countries.

Let me explain why I emphasize continuous, uninterrupted diplomatic relations. Last Saturday marked 82 years since Acting Secretary of State Sumner Welles issued a declaration that is remembered to this day in each of the Baltic countries. Soviet troops had entered the Baltic states, arrested leaders, and organized rigged elections to create pro-Soviet government.

The Welles Declaration decried the ''devious processes whereunder the political independence and territorial integrity of the three small Baltic Republics—Estonia, Latvia, and Lithuania—were to be deliberately annihilated by one of their more powerful neighbors.'' It was a clear, principled statement that the United States would not recognize Soviet control over these countries as legitimate.

During the 50 years the Soviet Union forcibly occupied Estonia, Latvia, and Lithuania, diplomats from each of the Baltic states continued their work in the United States, and we continued to recognize them as independent, sovereign countries under foreign occupation.

The Soviet Union justified sending troops to the Baltics on the basis of the threat from Nazi Germany. However, just a year before, the Molotov-Ribbentrop Pact between the Nazis and Soviets contained a secret protocol whereby Hitler and Stalin agreed to carve up their neighbors into ''spheres of influence.'' Under this agreement, the Baltics, Finland, eastern Poland, and what is now Moldova would be controlled by the Soviet Union, and the rest of Poland would go to Germany. Finland was able to fight back in the Winter War, retaining its sovereignty, but losing significant territory to Russia. The rest of the pact played out just as Stalin and Hitler agreed.

This isn't just history. This is directly relevant to Vladimir Putin's rhetoric, attitude, and actions in Ukraine. He believes he has a right to a sphere of influence over his neighbors just like Stalin and Hitler thought. To this day, Putin maintains that the three Baltics joined the Soviet Union in 1940 and ceased to exist as countries until the breakup of the Soviet Union in 1991. The Russian Duma has even threatened to repeal a Soviet law recognizing Lithuania's independence from the USSR—what a joke.

Let's be clear: The Baltic states are not former Soviet republics. They have been independent countries for over a century. Following in Stalin's footsteps, Putin justifies attacking Ukraine, at least to audiences outside of Russia, as a reaction to NATO encroaching on Russia. Putin casts NATO as a threat, even making up a claim that NATO was planning to put missiles in Ukraine targeting Russia.

The fact is, even our eastern flank allies in NATO do not currently have the kinds of defensive missiles they would need to repel a Russian invasion, which is unfortunate. Currently, we have meager ''tripwire'' forces that are insufficient to stop the kind of invasion we saw in Ukraine in February. Russia's military leaders know that NATO cannot begin to threaten Russian territory.

There were no allied reinforcements in any NATO country bordering Russia until the invasion of Ukraine in 2014. Ukraine was militarily neutral then, but seeking economic ties with the European Union, thus slipping away from economic dependency on Russia.

The fact that NATO has become attractive to Ukraine since Russia seized Crimea and part of the Donbas is a threat not to the territory of the Russian Federation, but to Russia's imperial desire for a sphere of influence. Putin blames Ukraine's westward turn on provocations by western intelligence agencies, failing to recognize that Ukrainians are making their own choices. Just like in 1940, the United States has refused to recognize another Russian occupation of a sovereign country as legitimate.

We were once a small collection of colonies seeking to chart our own, independent course free from European empires. That is why the Welles Declaration expressed admiration for the Baltic countries as they pursued self-government and democracy.

That is why the Welles Declaration made clear that the people of the United States oppose intervention or the use of force by large or powerful countries on smaller, weaker ones. That principle applies today to Ukraine. No one should decide Ukraine's fate except the Ukrainian people. True to our principles, the United States can never, directly or tacitly, consign Ukraine to Russia's sphere of influence.

As we celebrate 100 years of excellent diplomatic relations with our Baltic allies, there is no doubt in retrospect that we were right to stand up for their sovereignty, even when that seemed hopeless, even foolish. Fifty years of Russian occupation could not turn them into Russians, just as centuries of Russification policies have not convinced Ukrainians to accept the Russian view that they are just ''little Russians.'' The Baltic countries are thriving democracies with strong Western values and some of our closest allies. Thank God they regained their independence and are now in NATO.

WATER RESOURCES DEVELOPMENT ACT

Mr. RISCH. Madam President, I rise today to convey my support for the Columbia River Federal Power System. The congressionally-authorized Federal dams on the Columbia River System bring unparalleled benefits to the Pacific Northwest and stand as an example to other hydropower projects worldwide. The system's capacity to generate always-on, baseload carbon-free power is vital to the Northwest. As many other parts of the country have experienced rolling blackouts, the dams in the Columbia Basin have consistently kept the lights on.

In the Northwest, we enjoy numerous other benefits from this infrastructure, including flood control, irrigation, navigation, and recreation. Due to its remarkable lock and dam system, even my landlocked home State of Idaho benefits from a seaport, sending Idaho's agricultural and manufactured products around the world in a cost-effective, low-carbon manner. As additional challenges have risen, scientists and managers at the U.S. Army Corps of Engineers have adapted under the direction of Congress to ensure the dams are still simultaneously beneficial to humans and our natural environment.

It is due to these important considerations that I speak on the Water Resources Development Act before the Senate today. Among a list of studies that can generally be measured in acres or at most counties is a sweeping and far-reaching study directed at aquatic habitat restoration in the Columbia River Basin. The Columbia River Basin spans nearly 260,000 square miles over seven States. This is not just another small, localized review, but instead authorizes an exhaustive study on aquatic restoration in one of the largest basins in the country.

I have long supported improving salmon and steelhead populations in the Northwest. In fact, I worked tirelessly with colleagues on both sides of the aisle to pass legislation—ultimately supported by the entire Northwest delegation—to address the predation that was devastating salmon populations before they had a chance to go upriver. However, what I cannot support are the constant efforts to remove the benefits provided by our hydropower system under the guise of salmon recovery or ''aquatic restoration.''

We have studied this river and these dams ad nauseam. Most recently, the U.S. Army Corps of Engineers completed the 3-year Columbia River System Operations review, which intentionally and specifically considered whether dam breaching was necessary for fish recovery and determined the opposite. It has been proven, time and again, salmon and hydropower dams do, can, and should coexist. It is futile and irresponsible to spend further taxpayer dollars considering dam breaching. But this reality has not prevented the administration or other political actors from continually pushing against the intent of Congress to protect both the species and the numerous benefits from the Columbia River Federal Power System.

With this in mind, let us revisit the ecosystem study in title II. I deeply appreciate the chairman and ranking member's attention to this issue and work to create suitable limitations to ensure this study will be held strictly to the congressionally authorized purposes of the system and considerations that would maintain the energy, flood control, navigation, irrigation, and other benefits it currently provides. While I still regard this study as too far-reaching and unfocused to result in timely proposals for anadromous fish recovery—yet again wasting taxpayer dollars better utilized elsewhere in the region—with this vital check, I am able to support this version of WRDA overall and the many essential water infrastructure priorities contained within it. Should this proposed study be signed into law, I will take special notice and trust that it meets congressional intent of preserving the Columbia River Federal Power System, all of its current infrastructure as authorized by Congress, and its innumerable benefits.

Despite political maneuvering from the administration, it is an irrefutable fact that decisions regarding the Columbia River Federal Power System are solely the responsibility of Congress. I look forward to continue working with my colleagues to identify solutions to salmon recovery that do not inhibit the clean energy, flood control, navigation, agricultural, and recreation benefits of our Federal Power System.

NOTICE OF A TIE VOTE UNDER S. RES. 27

Mr. WYDEN. Madam President, I ask unanimous consent to print the following letter in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

U.S. SENATE,
COMMITTEE ON FINANCE,
Washington, DC.

To the Secretary of the Senate:

PN 2064, the nomination of Rebecca Lee Haffajee, of Massachusetts; to be an Assistant Secretary of Health and Human Services having been referred to the Committee on Finance, the Committee, with a quorum present, has voted on the nomination as follows—

(l) on the question of reporting the nomination favorably with the recommendation that the. nomination be confirmed, 14 ayes to 14 noes; and

In accordance with section 3, paragraph (l)(A) of S. Res. 27 of the 117th Congress, I hereby give notice that the Committee has not reported the nomination because of a tie vote, and ask that this notice be printed in the RECORD pursuant to the resolution.''

RON WYDEN.

VOTE EXPLANATION

Mr. HAWLEY. Mr. President, had there been a recorded vote, I would have voted no on the confirmations of Executive Calendar No. 1057, Enix Smith III, of Louisiana, to be United States Marshall for the Eastern District of Louisiana.

ARMS SALES NOTIFICATION

Mr. MENENDEZ. Madam President, section 36(b) of the Arms Export Control Act requires that Congress receive prior notification of certain proposed arms sales as defined by that statute. Upon such notification, the Congress has 30 calendar days during which the sale may be reviewed. The provision stipulates that, in the Senate, the notification of proposed sales shall be sent to the chairman of the Senate Foreign Relations Committee.

In keeping with the committee's intention to see that relevant information is available to the full Senate, I ask unanimous consent to have printed in the RECORD the notifications which have been received. If the cover letter references a classified annex, then such annex is available to all Senators in the office of the Foreign Relations Committee, room SD–423.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

DEFENSE SECURITY
COOPERATION AGENCY,
Washington, DC.

Hon. ROBERT MENENDEZ,
Chairman, Committee on Foreign Relations, Washington, DC.

DEAR MR. CHAIRMAN: Pursuant to the reporting requirements of Section 36(b)(1) of the Arms Export Control Act, as amended, we are forwarding herewith Transmittal No. 22–40, concerning the Air Force's proposed Letter(s) of Offer and Acceptance to the Government of Japan for defense articles and services estimated to cost $293 million. After this letter is delivered to your office, we plan to issue a new release to notify the public of this proposed sale.

Sincerely,

JAMES A. HURSCH,
Director.

Enclosures.

TRANSMITTAL NO. 22–40

Notice of Proposed Issuance of Letter of Offer Pursuant to Section 36(b)(1) of the Arms Export Control Act, as amended

(i) Prospective Purchaser: Government of Japan.

(ii) Total Estimated Value:
Major Defense Equipment * $257 million.
Other $ 36 million.
Total $293 million.

(iii) Description and Quantity or Quantities of Articles or Services under Consideration for Purchase:

Major Defense Equipment (MDE):

One hundred fifty (150) AIM–120C–7/C–8 Advanced Medium Range Air-to-Air Missiles (AMRAAMs).

Three (3) AIM–120 AMRAAM Guidance Sections.

Non-MDE: Also included are AIM–120 missile containers and control sections; weapon support and support equipment; classified software delivery and support; spare and repair parts, consumables, and accessories; classified publications and technical documentation; U.S. Government and contractor engineering, technical and logistical support services; and other related elements of logistical and program support.

(iv) Military Department: Air Force (JA-D-YAX, JA-D-YBD).

(v) Prior Related Cases, if any: JA-D-YAI, JA-D-YAK, JA-D-YAO, JA-D-YCM, JA-D-YAU.

(vi) Sales Commission, Fee, etc., Paid, Offered, or Agreed to be Paid: None known at this time.

(vii) Sensitivity of Technology Contained in the Defense Article or Defense Services Proposed to be Sold: See Attached Annex.

(viii) Date Report Delivered to Congress: July 25, 2022.

*As defined in Section 47(6) of the Arms Export Control Act.

POLICY JUSTIFICATION

Japan—AIM–120C–7/8 Advanced Medium-Range Air-to-Air Missiles (AMRAAMs)

The Government of Japan has requested to buy one hundred fifty (150) AIM–120C–7/C–8 Advanced Medium Range Air-to-Air Missiles (AMRAAMs); and three (3) AIM–120 AMRAAM Guidance Sections. Also included are AIM–120 missile containers and control sections; weapon support and support equipment; classified software delivery and support; spare and repair parts, consumables, and accessories; classified publications and technical documentation; U.S. Government and contractor engineering, technical and logistical support services; and other related elements of logistical and program support. The estimated total program cost is $293 million.

This proposed sale will support the foreign policy goals and national security objectives of the United States by improving the security of a major ally that is a force for political stability and economic progress in the Asia-Pacific region.

The proposed sale will improve Japan's capability to meet current and future threats by defending the Japanese homeland and U.S. personnel stationed there. Japan already has AMRAAMs in its inventory and will have no difficulty absorbing these missiles into its armed forces.

The proposed sale of this equipment and support will not alter the basic military balance in the region.

The principal contractor will be Raytheon Missile Systems, Tucson, AZ. There are no known offset agreements proposed in connection with this potential sale.

Implementation of this proposed sale will not require the assignment of any additional U.S. Government or contractor representatives to Japan.

There will be no adverse impact on U.S. defense readiness as a result of this proposed sale.

TRANSMITTAL NO. 22–40

Notice of Proposed Issuance of Letter of Offer Pursuant to Section 36(b)(1) of the Arms Export Control Act

Annex Item No. vii

(vii) Sensitivity of Technology:

1. The AIM–120C–7/C–8 Advanced Medium Range Air-to-Air Missile (AMRAAM) is a supersonic, air launched, aerial intercept, guided missile featuring digital technology and micro-miniature solid-state electronics. This potential sale will include AMRAAM Guidance Section. AMRAAM capabilities include look-down/shoot-down, multiple launches against multiple targets, resistance to electronic countermeasures, and interception of high and low-flying and maneuvering targets. The AIM–120C–8 is a form, fit, and function refresh of the AIM–120C–7 and is the next generation to be produced.

2. The highest level of classification of defense articles, components, and services included in this potential sale is SECRET.

3. If a technologically advanced adversary were to obtain knowledge of the specific hardware and software elements, the information could be used to develop countermeasures that might reduce weapon system effectiveness or be used in the development of a system with similar or advanced capabilities.

4. A determination has been made that Japan can provide substantially the same degree of protection for the sensitive technology being released as the U.S. Government. This sale is necessary in furtherance of the U.S. foreign policy and national security objectives outlined in the Policy Justification.

5. All defense articles and services listed in this transmittal have been authorized for release and export to the Government of Japan.

ARMS SALES NOTIFICATION

Mr. MENENDEZ. Madam President, section 36(b) of the Arms Export Control Act requires that Congress receive prior notification of certain proposed arms sales as defined by that statute. Upon such notification, the Congress has 30 calendar days during which the sale may be reviewed. The provision stipulates that, in the Senate, the notification of proposed sales shall be sent to the chairman of the Senate Foreign Relations Committee.

In keeping with the committee's intention to see that relevant information is available to the full Senate, I ask unanimous consent to have printed in the RECORD the notifications which have been received. If the cover letter references a classified annex, then such annex is available to all Senators in the office of the Foreign Relations Committee, room SD–423.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

DEFENSE SECURITY COOPERATION AGENCY,
Washington, DC.

Hon. ROBERT MENENDEZ,
Chairman, Committee on Foreign Relations, U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: Pursuant to the reporting requirements of Section 36(b)(1) of the Arms Export Control Act, as amended, we are forwarding herewith Transmittal No. 22–37, concerning the Air Force's proposed Letter(s) of Offer and Acceptance to the Government of Singapore for defense articles and services estimated to cost $630 million. After this letter is delivered to your office, we plan to issue a news release to notify the public of this proposed sale.

Sincerely,

JAMES A. HURSCH,
Director.

Enclosures.

TRANSMITTAL NO. 22–37

Notice of Proposed Issuance of Letter of Offer Pursuant to Section 36(b)(1) of the Arms Export Control Act, as amended

(i) Prospective Purchaser: Government of Singapore.

(ii) Total Estimated Value:
Major Defense Equipment* $14.7 million.
Other $615.3 million.
Total $630.0 million.
Funding Source: National Funds.

(iii) Description and Quantity or Quantities of Articles or Services under Consideration for Purchase:

Major Defense Equipment (MDE):

Ninety (90) MXU–651 Air Foil Groups (AFGs) for 2000LB Paveway II (PWII), GBU–10.

Ninety (90) MAU–169 or MAU–209 Computer Control Groups (CCGs) for 2000LB PWII, GBU–10.

One hundred forty (140) MXU–650 AFGs for 500LB PW–II, GBU–12.

One hundred forty (140) MAU–169 or MAU–209 CCGs for 500LB PWII, GBU–12.

Twenty (20) Joint Direct Attack Munition (JDAM) KMU–556 tail kits for GBU–31.

Twenty-two (22) JDAM KMU–572 tail kits for Laser JDAM, GBU–54.

Two hundred (200) FMU–152 Fuzes.

Fifty (50) MK–84 2000LB General Purpose (GP) Bombs.

Fifty (50) MK–82 500LB GP Bombs.

Six hundred twenty-five (625) Mk–82 500LB Inert Bombs.

Non-MDE: Also included are DSU–38 and –40 Precision Laser Guidance Sets (PLGS) for Laser JDAM, GBU–54; KGV–135A cryptographic devices; impulse cartridges, chaff, and flares; training rounds and practice bombs; classified and unclassified software delivery and support; classified and unclassified publications and technical documentation; integration support and test equipment; aircraft and munitions support and support equipment; telemetry kits; military exercise participation and support; transportation, airlift, and aircraft ferry support; jet fuel; aerial refueling support; personnel training, and training equipment and maintenance; medical and other exercise- and training-related services and support; personnel clothing and equipment; facilities and construction support; and U.S. Government and contractor engineering, technical, maintenance, and logistics support services, as well as other related elements of logistical and program support.

(iv) Military Department: Air Force (SN–D–NAA).

(v) Prior Related Cases, if any: SN–D–NAG.

(vi) Sales Commission, Fee, etc., Paid, Offered, or Agreed to be Paid: None known at this time.

(vii) Sensitivity of Technology Contained in the Defense Article or Defense Services Proposed to be Sold: See Attached Annex.

(viii) Date Report Delivered to Congress: July 25, 2022.

*As defined in Section 47(6) of the Arms Export Control Act.

POLICY JUSTIFICATION

Singapore—Munitions and Follow-On Training and Sustainment for PEACE CARVIN V (F–15 Training Detachment)

The Government of Singapore has requested to buy ninety (90) MXU–651 Air Foil Groups (AFGs) for 2000LB Paveway II (PWII), GBU–10; ninety (90) MAU–169 or MAU–209 Computer Control Groups (CCGs) for 2000LB PWII, GBU–10; one hundred forty (140) MXU–650 AFGs for 500LB PW–II, GBU–12; one hundred forty (140) MAU–169 or MAU–209 CCGs for 500LB PWII, GBU–12; twenty (20) Joint Direct Attack Munition (JDAM) KMU–556 tail kits for GBU–31; twenty-two (22) JDAM KMU–572 tail kits for Laser JDAM, GBU–54; two hundred (200) FMU–152 fuzes; fifty (50) MK–84 2000LB General Purpose (GP) bombs; fifty (50) MK–82 500LB GP bombs; and six hundred twenty-five (625) Mk–82 500LB inert bombs. Also included are DSU–38 and –40 Precision Laser Guidance Sets (PLGS) for Laser JDAM, GBU–54; KGV–135A cryptographic devices; impulse cartridges, chaff, and flares; training rounds and practice bombs; classified and unclassified software delivery and support; classified and unclassified publications and technical documentation; integration support and test equipment; aircraft and munitions support and support equipment; telemetry kits; military exercise participation and support; transportation, airlift, and aircraft ferry support; jet fuel; aerial refueling support; personnel

training, and training equipment and maintenance; medical and other exercise- and training-related services and support; personnel clothing and equipment; facilities and construction support; and U.S. Government and contractor engineering, technical, maintenance, and logistics support services, as well as other related elements of logistical and program support. The total estimated program cost is $630 million.

This proposed sale will support the foreign policy and national security objectives of the United States by improving the security of a strategic partner that is an important force for political stability and economic progress in Asia.

The proposed sale will enable the Singapore Air Force to continue its flight training program to develop mission-ready and experienced pilots to safely and effectively fly its F–15 aircraft, as part of the Peace Carvin V Detachment Training Program. The well-established pilot proficiency training program at Mountain Home Air Force Base will support professional interaction and enhance operational interoperability with U.S. Forces. Singapore will have no difficulty absorbing this equipment and support into its armed forces.

This proposed sale will not alter the basic military balance in the region.

There is no prime contractor involved in this proposed sale. Manpower support will be determined through competition with defense articles anticipated to come from U.S. inventory, as needed. Sources of supply may award contracts when necessary to provide the defense articles if items are not available from U.S. inventory or are considered long lead-time away. There are no known offset agreements proposed in connection with this sale.

Implementation of this proposed sale will not require the assignment of any additional U.S. Government or contractor representatives to Singapore.

There will be no adverse impact on U.S. defense readiness as a result of this proposed sale.

TRANSMITTAL NO. 22–37

Notice of Proposed Issuance of Letter of Offer Pursuant to Section 36(b)(1) of the Arms Export Control Act

Annex Item No. vii

(vii) Sensitivity of Technology:

1. The Paveway II (PWII) is a maneuverable, free-fall Laser Guided Bomb (LGB) that guides to a spot of laser energy reflected off the target. The LGB is delivered like a normal General Purpose (GP) warhead and the semi-active guidance corrects for many of the normal errors inherent in any delivery system. Laser designation can be provided by a variety of laser target markers or designators. A LGB consists of a non-warhead specific MAU–209 or MAU–169 Computer Control Group (CCG) and a warhead specific Air Foil Group (AFG) that attaches to the nose and tail of the GP bomb body respectively.

a. The GBU–12 is a 500LB GP bomb body fitted with the MXU–650 AFG to guide to its laser designated target.

b. The GBU–10 is a 2000LB GP bomb body fitted with the MXU–651 AFG to guide to its laser designated target. The inert GBU–12 uses a BDU–50 inert bomb body and MAU–169 CCG for training purposes.

2. The Joint Direct Attack Munitions (JDAM) is a guidance set which converts unguided bombs into an accurate, adverse weather ''smart'' munition. The Guidance Set consists of a Tail Kit, which contains the Inertial Navigation System (INS) and a Global Positioning System (GPS), a set of Aerosurfaces and an umbilical cover, which allows the JDAM to improve the accuracy of unguided, general purpose bombs. The JDAM weapon can be delivered from modest standoff ranges at high or low altitudes against a variety of land and surface targets during the day or night. The JDAM is capable of receiving target coordinates via preplanned mission data from the delivery aircraft, by onboard aircraft sensors (i.e., FLIR, Radar, etc.) during captive carry, or from a third-party source via manual or automated aircrew cockpit entry. The Guidance Set, when combined with a warhead and appropriate fuze, forms a JDAM Guided Bomb Unit (GBU).

a. The GBU–38 is a 500LB bomb body fitted with a KMU–572 guidance kit.

b. The GBU–31 is a 2000LB bomb body fitted with a KMU–556 guidance kit.

3. The Laser Joint Direct Attack Munition (LJDAM) is a JDAM that incorporates all the capabilities of the JDAM guidance tail kit and adds a precision laser guidance set (DSU–38 or DSU–40). The LJDAM gives the weapon system an optional semi-active laser guidance in addition to the INS/GPS guidance. This provides the optional capability to strike moving targets. The GBU–54 is a 500LB bomb body fitted with a laser guidance set and KMU–572 guidance kit.

4. The KGV–135A is a high-speed, general purpose encryptor/decryptor module used for wide-band data encryption.

5. The highest level of classification of defense articles, components, and services included in this potential sale is SECRET.

6. I. a technologically advanced adversary were to obtain knowledge of the specific hardware and software elements, the information could be used to develop countermeasures that might reduce weapon system effectiveness or be used in the development of a system with similar or advanced capabilities.

7. A determination has been made that Singapore can provide substantially the same degree of protection for the sensitive technology being released as the U.S. Government. This sale is necessary in furtherance of the U.S. foreign policy and national security objectives outlined in the Policy Justification.

8. All defense articles and services listed in this transmittal have been authorized for release and export to the Government of Singapore.

ARMS SALES NOTIFICATION

Mr. MENENDEZ. Madam President, section 36(b) of the Arms Export Control Act requires that Congress receive prior notification of certain proposed arms sales as defined by that statute. Upon such notification, the Congress has 30 calendar days during which the sale may be reviewed. The provision stipulates that, in the Senate, the notification of proposed sales shall be sent to the chairman of the Senate Foreign Relations Committee.

In keeping with the committee's intention to see that relevant information is available to the full Senate, I ask unanimous consent to have printed in the RECORD the notifications which have been received. If the cover letter references a classified annex, then such annex is available to all Senators in the office of the Foreign Relations Committee, room SD–423.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

DEFENSE SECURITY COOPERATION AGENCY,
Washington, DC.

Hon. ROBERT MENENDEZ,
Chairman, Committee on Foreign Relations, U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: Pursuant to the reporting requirements of Section 36(b)(5)(A) of the Arms Export Control Act (AECA), as amended, we are forwarding Transmittal No. 0F–22. This notification relates to enhancements or upgrades from the level of sensitivity of technology or capability described in the Section 36(b)(1) AECA certification 15–24 of June 9, 2015.

Sincerely,

JAMES A. HURSCH,
Director.

Enclosures.

TRANSMITTAL NO. 0F–22

Report of Enhancement or Upgrade of Sensitivity of Technology or Capability (Sec. 36(b)(5)(A), AECA)

(i) Purchaser: Republic of Korea.

(ii) Sec. 36(b)(1), AECA Transmittal No.: 15–24; Date: June 9, 2015; Military Department: Navy.

(iii) Description: On June 9, 2015, Congress was notified by Congressional certification transmittal number 15–24, of the possible sale under Section 36(b)(1) of the Arms Export Control Act of 3 Aegis Shipboard Combat Systems, 3 MK–41 Vertical Launching Systems, 3 Common Data Link Management Systems, 3 AN/UPX–29(V) Identification Friend or Foe Interrogators, spare and repair parts, support equipment, publications and technical documentation, personnel training and training equipment, tool and test equipment, U.S. Government and contractor technical, engineering, and logistics support services, and other related elements of logistics support. The estimated total cost was $1.91 billion. Major Defense Equipment (MDE) constituted $1.21 billion of this total.

On July 9, 2018, 0G–18 reported the addition of one (1) Global Positioning System (GPS)-based Positioning, Navigation, and Timing Service (GPNTS) (MDE); three (3) Command and Control Processors (C2P) (MDE); and three (3) Multifunctional Information Distribution System Joint Tactical Radio System (MIDS JTRS) (MDE). These additions did not result in a change to the estimated MDE value of $1.21 billion. The total estimated case value remained $1.91 billion.

On August 26, 2020, 0O–20 reported the inclusion of three (3) Multifunctional Information Distribution System (MIDS) On Ship (MOS), Modernization (MOS MOD) as MDE. The estimated total value of the MDE items was $2.7 million, resulting in a new MDE total of $1.217 billion. The total notified case value remained $1.91 billion.

This transmittal reports the inclusion of an additional two (2) GPNTS (MDE). The estimated total value of the new MDE items is $3.1 million, resulting in a new MDE total of $1.221 billion. These costs will not increase the total case value, which will remain $1.91 billion.

(iv) Significance: The inclusion of the additional GPNTS will provide the Republic of Korea Navy (ROKN) the ability to properly employ their Aegis Shipboard Combat Systems. By acquiring these upgraded capabilities, Korea can successfully perform missions with its destroyers and will provide greater protection for its forces.

(v) Justification: This proposed sale will support the foreign policy goals and national security objectives of the United States by improving the security of a major ally that is a force for political stability and economic progress in the Indo-Pacific region.

(vi) Sensitivity of Technology: The Sensitivity of Technology statement contained in the original notification, as amended, applies to items reported here.

The highest level of classification of defense articles, components, and services included in this potential sale is UNCLASSIFIED.

(vii) Date Report Delivered to Congress: July 26, 2022.

ARMS SALES NOTIFICATION

Mr. MENENDEZ. Madam President, section 36(b) of the Arms Export Control Act requires that Congress receive prior notification of certain proposed arms sales as defined by that statute. Upon such notification, the Congress has 30 calendar days during which the sale may be reviewed. The provision stipulates that, in the Senate, the notification of proposed sales shall be sent to the chairman of the Senate Foreign Relations Committee.

In keeping with the committee's intention to see that relevant information is available to the full Senate, I ask unanimous consent to have printed in the RECORD the notifications which have been received. If the cover letter references a classified annex, then such annex is available to all Senators in the office of the Foreign Relations Committee, room SD–423.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

DEFENSE SECURITY COOPERATION AGENCY,
Washington, DC.

Hon. ROBERT MENENDEZ,
Chairman, Committee on Foreign Relations, U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: Pursuant to the reporting requirements of Section 36(b)(5)(C) of the Arms Export Control Act (AECA), as amended, we are forwarding Transmittal No. 22–0K. This notification relates to enhancements or upgrades from the level of sensitivity of technology or capability described in the Section 36(b)(1) AECA certification 19–65 of October 29, 2019.

Sincerely,

JAMES A. HURSCH,
Director.

Enclosures.

TRANSMITTAL NO. 22–0K

Report of Enhancement or Upgrade of Sensitivity of Technology or Capability (Sec. 36(b)(5)(C), AECA)

(i) Purchaser: Government of Japan.

(ii) Sec. 36(b)(1), AECA Transmittal No.: 19–65; Date: October 29, 2019; Implementing Agency: Air Force.

(iii) Description: On October 29, 2019, Congress was notified by Congressional certification transmittal number 19–65 of the possible sale, under Section 36(b)(1) of the Arms Export Control Act, of the upgrade of up to ninety-eight (98) F–15J aircraft to a Japanese Super Interceptor (JSI) configuration consisting of up to one hundred three (103) APG–82(v)1 Active Electronically Scanned Array (AESA) Radar (includes five (5) spares); one hundred sixteen (116) Advanced Display Core Processor II (ADCP II) Mission System Computer (includes eighteen (18) spares); and one hundred one (101) ALQ–239 Digital Electronic Warfare System (DEWS) (includes three (3) spares). Also included were Joint Mission Planning System (JMPS) with software, training and support; Selective Availability Anti-spoofing Module (SAASM); ARC–210 radio, aircraft and munition integration and test support; ground training devices (including flight and maintenance simulators); support and test equipment; software delivery and support; spare and repair parts; communications equipment; facilities and construction support; publications and technical documentation; personnel training and training equipment; U.S. Government and contractor engineering; technical and logistics support services; studies and surveys; and other related elements of logistical and program support. The estimated total program cost was $4.5 billion. Major Defense Equipment (MDE) constituted $2.4 billion of this total.

This transmittal reports the addition of the following MDE items: one hundred three (103) AN/ALQ–250 Eagle Passive Active Warning Survivability System (EPAWSS) Electronic Warfare (EW) suites. The total cost of new MDE articles is $956 million. This does not increase the total net cost of MDE, which will remain $2.4 billion. The total case value will not increase, remaining $4.5 billion.

(iv) Significance: The inclusion of this MDE represents an increase in capability over what was previously notified. The proposed articles and services will support Japan's defense of its airspace.

(v) Justification: This proposed sale will support the foreign policy goals and national security objectives of the United States by improving the security of a major ally that is a force for political stability and economic progress in the Asia-Pacific region. It is vital to the U.S. national interest to assist Japan in developing and maintaining a strong and effective self-defense capability.

(vi) Sensitivity of Technology: The Eagle Passive Active Warning Survivability System (EPAWSS) is an advanced all-digital EW suite which provides the F–15 with fully integrated radar warning, geolocation, situational awareness, and self-protection solutions to detect and defeat surface and airborne legacy, current, and future threats in highly contested, dense signal environments. EPAWSS is equipped with advanced Radio Frequency (RF) Electronic Countermeasures (ECM), enabling deeper penetration against modern integrated air defense systems and providing rapid response capabilities designed to protect the aircrew.

The highest level of classification of defense articles, components, and services included in this potential sale is UNCLASSIFIED.

(vii) Date Report Delivered to Congress: July 26, 2022.

ADDITIONAL STATEMENTS

TRIBUTE TO OFFICER JAMES ASHLEY, OFFICER CLAYTON KELLY, AND OFFICER CONNOR MALONEY

• Mr. PAUL. Madam President, on Thursday, May 12, 2021, three Louisville Metro Police Department Officers bravely saved the lives of two citizens from their burning vehicles.

After another driver collided with a pulled-over vehicle, Officers James Ashley, Clayton Kelly, and Connor Maloney quickly responded to the scene. The circumstances in which these officers arrived were less than ideal. Both drivers were unresponsive in vehicles moments from being engulfed in flames on a dangerous and busy interstate. In addition, these relatively new officers had never been trained to extract people from burning vehicles. But without hesitation, these brave officers quickly jumped into action.

Officers Kelly and Maloney used a baton to bust out a window and pulled one of the drivers to safety. Officer Ashley did the same and communicated with the other driver allowing him to crawl from his burning vehicle.

Seventh Division Lieutenant Jeff Lauder stated, ''These people would not have survived had it not been for the quick decision making and bravery of these officers.'' The actions of these three officers directly saved the lives of two citizens in an extremely dangerous situation.

Officers Ashley, Kelly, and Maloney are brave servants to the city of Louisville and a true testament to the hardworking Louisville Metro Police Department. I am proud to salute these officers and have no doubt they will continue to be an incredible asset to citizens of Louisville.•

RECOGNIZING BUBBY'S BBQ

• Mr. PAUL. Madam President, as ranking member of the Senate Committee on Small Business and Entrepreneurship, each week I recognize an outstanding Kentucky small business that exemplifies the American entrepreneurial spirit. This week, it is my privilege to recognize Bubby's BBQ of Corbin, KY, as the Senate Small Business of the Week.

For as long as he can remember, Marcus ''Bubby'' Shepherd loved to cook. He appreciated how food could bring people together and create a sense of comfort for everyone at the table. After working as a truck driver for 15 years, Marcus decided to switch career paths and open a restaurant that showcased his specialty: cooking and smoking meat. Hence, Bubby's BBQ of Corbin, KY, was born and very quickly became a Shepherd family affair, spearheaded by Marcus.

From carefully crafted pulled pork barbecue to exceptionally crisp fried catfish, Bubby's BBQ has a vast selection of menu items that are undeniably delectable. Whether customers choose to order from the menu or opt for the all-you-can-eat buffet, it is certain that the food will always be excellent. Marcus ensures that all of the food served abides by his recipes, so that each meal eaten at Bubby's tastes as if Marcus had whipped it up himself. The barbeque is smoked for 10–12 hours each night using hickory wood, and everything is homemade, right down to the BBQ sauce. This attention to detail is what has made Bubby's BBQ widely recognized for its consistency and high-quality food. A testament to their success, Bubby's BBQ has won the People's Choice Award for Best Restaurant several years in a row in various categories.

The delicious food attracts thousands of customers from all over Kentucky, and the welcoming ambience and high-quality service at Bubby's makes people never want to leave. The waitstaff goes out of their way to guarantee the customers are always satisfied and their drinks are never empty. Everyone that visits Bubby's BBQ feels as if they

are part of the restaurant family, and a missing regular never goes unnoticed by the staff. Some will go to the restaurant as many as four to five times a week and never get tired of the food. Bubby's care is not limited to its customers; it extends to its local community. The restaurant hosts many fundraising events to raise money for the youth sports teams in the Corbin area. Bubby's BBQ also uses its resources to support those who do not have stable access to food through its involvement in the Corbin Community Backpack Program, an initiative that provides local schoolchildren, who have little or no food available at their home, backpacks full of food to last them over the weekends. Additionally, Bubby's BBQ assists with Operation James Scott, a veteran-led community activity that purchases Christmas presents for local children.

Bubby's BBQ has cultivated a famed reputation for its authenticity. There is a strong sense of comfort every guest can feel when they dine at Bubby's. With food that resembles family cooking, phenomenal service that prioritizes customer satisfaction, and interior design that reflects a southern country style, Bubby's makes you feel at home. This quality of care and intimacy with customers is distinct to small businesses. Everyone who goes to Bubby's BBQ knows there is just no place like it, nor could it ever be replicated. Marcus's ability to transform his passion into a successful business is an embodiment of the entrepreneurial spirit that uplifts this country. I want to thank Marcus Shepherd and the Shepherd family for all of the work they have done to support their community of Corbin and the American people. I look forward to watching your continued growth and success in Kentucky.●

TRIBUTE TO NICHOLAS BOSTIC

● Mr. YOUNG. Madam President, I rise today to formally express my gratitude for the heroic actions of Nicholas Bostic in Lafayette, IN, on July 11, 2022.

Just after midnight on Monday, July 11, Nicholas Bostic ran into a burning home and rescued five children inside. Nicholas was driving and observed a home engulfed in flames. He stopped to make sure the residents had left the building, and he saw a teenager and three younger children stuck inside. Nicholas ran into the building to help the four children exit safely. When he discovered one child was still missing, Nicholas immediately reentered the home to find the missing child. By the time he found her, the fire had spread, making it unsafe to exit through the downstairs door. Nicholas broke the second story window and jumped out, sheltering the girl from the fall by landing on his side. Thanks to Nicholas, the child escaped with only minor injuries, and the other four children were unharmed.

In helping shield the children from injury, Nicholas developed first-degree burns and suffered from smoke inhalation. I pray for Nicholas as he recuperates from his injuries and wish him a full and swift recovery. I also want to recognize and thank the first responders who helped put out the fire and treat Nicholas and the children.

Despite the danger, Nicholas did not hesitate to run into the burning building—twice—to make sure everyone safely escaped. I share the view of Lafayette Police Department who noted, ''Nicholas Bostic's heroic actions saved lives.'' I join the Lafayette community in commending Nicholas for the selflessness he displayed. Today, I thank Nicholas for his heroism and am proud to call him a fellow Hoosier.●

MESSAGES FROM THE PRESIDENT

Messages from the President of the United States were communicated to the Senate by Mr. Swann, one of his secretaries.

EXECUTIVE MESSAGES REFERRED

In executive session the Presiding Officer laid before the Senate messages from the President of the United States submitting sundry nominations which were referred to the appropriate committees.

(The messages received today are printed at the end of the Senate proceedings.)

PRESIDENTIAL MESSAGE

REPORT OF THE CONTINUATION OF THE NATIONAL EMERGENCY THAT WAS ORIGINALLY DECLARED IN EXECUTIVE ORDER 13441 OF AUGUST 1, 2007, WITH RESPECT TO LEBANON—PM 37

The PRESIDING OFFICER laid before the Senate the following message from the President of the United States, together with an accompanying report; which was referred to the Committee on Banking, Housing, and Urban Affairs:

To the Congress of the United States:

Section 202(d) of the National Emergencies Act (50 U.S.C. 1622(d)) provides for the automatic termination of a national emergency unless, within 90 days prior to the anniversary date of its declaration, the President publishes in the *Federal Register* and transmits to the Congress a notice stating that the emergency is to continue in effect beyond the anniversary date. In accordance with this provision, I have sent to the *Federal Register* for publication the enclosed notice stating that the national emergency with respect to Lebanon declared in Executive Order 13441 of August 1, 2007, is to continue in effect beyond August 1, 2022.

Certain ongoing activities, such as Iran's continuing arms transfers to Hizballah—which include increasingly sophisticated weapons systems—serve to undermine Lebanese sovereignty, contribute to political and economic instability in the region, and continue to constitute an unusual and extraordinary threat to the national security and foreign policy of the United States. Therefore, I have determined that it is necessary to continue the national emergency declared in Executive Order 13441 with respect to Lebanon.

JOSEPH R. BIDEN, Jr.
THE WHITE HOUSE, *July 28, 2022*.

MESSAGES FROM THE HOUSE

At 12:40 p.m., a message from the House of Representatives, delivered by Mrs. Cole, one of its reading clerks, announced that the House has passed the following bills, in which it requests the concurrence of the Senate:

H.R. 623. An act to extend the Gabriella Miller Kids First Pediatric Research Program at the National Institutes of Health, and for other purposes.

H.R. 3771. An act to amend the Public Health Service Act to provide for research and improvement of cardiovascular health among the South Asian population of the United States, and for other purposes.

H.R. 3952. An act to strengthen the role of the Chief Scientist of the National Oceanic and Atmospheric Administration in order to promote scientific integrity and advance the Administration's world-class research and development portfolio.

H.R. 3962. An act to authorize notaries public to perform, and to establish minimum standards for, electronic notarizations and remote notarizations that occur in or affect interstate commerce, to require any Federal court to recognize notarizations performed by a notarial officer of any State, to require any State to recognize notarizations performed by a notarial officer of any other State when the notarization was performed under or relates to a public Act, record, or judicial proceeding of the notarial officer's State or when the notarization occurs in or affects interstate commerce, and for other purposes.

H.R. 4040. An act to amend title XVIII of the Social Security Act to extend telehealth flexibilities under the Medicare program, and for other purposes.

H.R. 4551. An act to amend the U.S. SAFE WEB Act of 2006 to provide for reporting with respect to cross-border complaints involving ransomware or other cyber-related attacks, and for other purposes.

H.R. 4990. An act to codify the Institute for Telecommunication Sciences and to direct the Assistant Secretary of Commerce for Communications and Information to establish an initiative to support the development of emergency communication and tracking technologies, and for other purposes.

H.R. 5313. An act to protect children and other consumers against hazards associated with the accidental ingestion of button cell or coin batteries by requiring the Consumer Product Safety Commission to promulgate a consumer product safety standard to require child-resistant closures on consumer products that use such batteries, and for other purposes.

H.R. 6929. An act to increase the benefits guaranteed in connection with certain pension plans, and for other purposes.

H.R. 6933. An act to amend the Energy Policy Act of 2005 to require reporting relating to certain cost-share requirements.

H.R. 7132. An act to preserve safe access to communications services for survivors of domestic violence and other crimes, and for other purposes.

H.R. 7361. An act to upgrade the communications service used by the National Weather Service, and for other purposes.

H.R. 7569. An act to direct the Secretary of Energy to establish a program to provide financial assistance to graduate students and postdoctoral researchers pursuing certain courses of study relating to cybersecurity and energy infrastructure.

H.R. 7624. An act to make available additional frequencies in the 3.1–3.45 GHz band for non-Federal use, shared Federal and non-Federal use, or a combination thereof, and for other purposes.

H.R. 7733. An act to amend the Community Development Banking and Financial Institutions Act of 1994 to reauthorize and improve the community development financial institutions bond guarantee program, and for other purposes.

H.R. 7981. An act to require qualifying smoke alarms in certain federally assisted housing, and for other purposes.

At 3:51 p.m., a message from the House of Representatives, delivered by Mrs. Alli, one of its reading clerks, announced that the House has passed the following bill, in which it requests the concurrence of the Senate:

H.R. 7900. An act to authorize appropriations for fiscal year 2023 for military activities of the Department of Defense and for military construction, and for defense activities of the Departrnent of Energy, to prescribe military personnel strengths for such fiscal year, and for other purposes

The message also announced that the House agrees to the amendment of the Senate to the amendment of the House to the amendment of the Senate to the bill (H.R. 4346) making appropriations for Legislative Branch for the fiscal year ending September 30, 2022, and for other purposes.

MEASURES REFERRED

The following bills were read the first and the second times by unanimous consent, and referred as indicated:

H.R. 623. An act to extend the Gabriella Miller Kids First Pediatric Research Program at the National Institutes of Health, and for other purposes; to the Committee on Health, Education, Labor, and Pensions.

H.R. 3771. An act to amend the Public Health Service Act to provide for research and improvement of cardiovascular health among the South Asian population of the United States, and for other purposes; to the Committee on Health, Education, Labor, and Pensions.

H.R. 3952. An act to strengthen the role of the Chief Scientist of the National Oceanic and Atmospheric Administration in order to promote scientific integrity and advance the Administration's world-class research and development portfolio; to the Committee on Commerce, Science, and Transportation.

H.R. 3962. An act to authorize notaries public to perform, and to establish minimum standards for, electronic notarizations and remote notarizations that occur in or affect interstate commerce, to require any Federal court to recognize notarizations performed by a notarial officer of any State, to require any State to recognize notarizations performed by a notarial officer of any other State when the notarization was performed under or relates to a public Act, record, or judicial proceeding of the notarial officer's State or when the notarization occurs in or affects interstate commerce, and for other purposes; to the Committee on the Judiciary.

H.R. 4040. An act to amend title XVIII of the Social Security Act to extend telehealth flexibilities under the Medicare program, and for other purposes; to the Committee on Finance.

H.R. 4551. An act to amend the U.S. SAFE WEB Act of 2006 to provide for reporting with respect to cross-border complaints involving ransomware or other cyber-related attacks, and for other purposes; to the Committee on Commerce, Science, and Transportation.

H.R. 4990. An act to codify the Institute for Telecommunication Sciences and to direct the Assistant Secretary of Commerce for Communications and Information to establish an initiative to support the development of emergency communication and tracking technologies, and for other purposes; to the Committee on Commerce, Science, and Transportation.

H.R. 6933. An act to amend the Energy Policy Act of 2005 to require reporting relating to certain cost-share requirements; to the Committee on Energy and Natural Resources.

H.R. 7361. An act to upgrade the communications service used by the National Weather Service, and for other purposes; to the Committee on Commerce, Science, and Transportation.

H.R. 7569. An act to direct the Secretary of Energy to establish a program to provide financial assistance to graduate students and postdoctoral researchers pursuing certain courses of study relating to cybersecurity and energy infrastructure; to the Committee on Energy and Natural Resources.

H.R. 7624. An act to make available additional frequencies in the 3.1–3.45 GHz band for non-Federal use, shared Federal and non-Federal use, or a combination thereof, and for other purposes; to the Committee on Commerce, Science, and Transportation.

H.R. 7733. An act to amend the Community Development Banking and Financial Institutions Act of 1994 to reauthorize and improve the community development financial institutions bond guarantee program, and for other purposes; to the Committee on Banking, Housing, and Urban Affairs.

H.R. 7981. An act to require qualifying smoke alarms in certain federally assisted housing, and for other purposes; to the Committee on Banking, Housing, and Urban Affairs.

MEASURES DISCHARGED

The following bill was discharged from the Committee on Health, Education, Labor, and Pensions, and referred to the Committee on Commerce, Science, and Transportation:

S. 4490. A bill to promote digital citizenship and media literacy.

EXECUTIVE AND OTHER COMMUNICATIONS

The following communications were laid before the Senate, together with accompanying papers, reports, and documents, and were referred as indicated:

EC–4695. A communication from the Associate Director of the Regulatory Management Division, Environmental Protection Agency, transmitting, pursuant to law, the report of a rule entitled ''Spiropidion; Pesticide Tolerances'' (FRL No. 9839–01–OCSPP) received in the Office of the President of the Senate on July 19, 2022; to the Committee on Agriculture, Nutrition, and Forestry.

EC–4696. A communication from the Associate Director of the Regulatory Management Division, Environmental Protection Agency, transmitting, pursuant to law, the report of a rule entitled ''Methylorubrum extorquens strain NLS0042; Exemption from the Requirement of a Tolerance'' (FRL No. 9964–01–OCSPP) received in the Office of the President of the Senate on July 25, 2022; to the Committee on Agriculture, Nutrition, and Forestry.

EC–4697. A communication from the Secretary of Defense, transmitting a report on the approved retirement of Lieutenant General James M. Richardson, United States Army, and his advancement to the grade of lieutenant general on the retired list; to the Committee on Armed Services.

EC–4698. A communication from the President of the United States, transmitting, pursuant to law, a report of the continuation of the national emergency with respect to the situation in Mali that was declared in Executive Order 13882 of July 26, 2019; to the Committee on Banking, Housing, and Urban Affairs.

EC–4699. A communication from the Congressional Assistant, Board of Governors of the Federal Reserve System, transmitting, pursuant to law, the report of a rule entitled ''Collection of Checks and Other Items by Federal Reserve Banks and Funds Transfers Through Fedwire'' ((RIN7100–AG16) (Docket No. R–1750)) received in the Office of the President of the Senate on July 25, 2022; to the Committee on Banking, Housing, and Urban Affairs.

EC–4700. A communication from the Assistant General Counsel for Legislation, Office of Energy Efficiency and Renewable Energy, Department of Energy, transmitting, pursuant to law, the report of a rule entitled ''Energy Conservation Program: Energy Conservation Standards for Commercial Prerinse Spray Valves'' (RIN1904–AE56) received in the Office of the President of the Senate on July 27, 2022; to the Committee on Energy and Natural Resources.

EC–4701. A communication from the Assistant General Counsel for Legislation, Office of Energy Efficiency and Renewable Energy, Department of Energy, transmitting, pursuant to law, the report of a rule entitled ''Energy Conservation Program for Appliance Standards: Certification for Ceiling Fan Light Kits, General Service Incandescent Lamps, Incandescent Reflector Lamps, Ceiling Fans, Consumer Furnaces and Boilers, Consumer Water Heaters, Dishwashers, and Commercial Clothes Washers, Battery Chargers, and Dedicated-Purpose Pool Pumps'' (RIN1904–AE90) received in the Office of the President of the Senate on July 27, 2022; to the Committee on Energy and Natural Resources.

EC–4702. A communication from the Assistant General Counsel for Legislation, Office of Energy Efficiency and Renewable Energy, Department of Energy, transmitting, pursuant to law, the report of a rule entitled ''Energy Conservation Program: Final Determination of Air Cleaners as a Covered Consumer Product'' (RIN1904–AF25) received in the Office of the President of the Senate on July 27, 2022; to the Committee on Energy and Natural Resources.

EC–4703. A communication from the Assistant General Counsel for Legislation, Office of Energy Efficiency and Renewable Energy, Department of Energy, transmitting, pursuant to law, the report of a rule entitled ''Energy Conservation Program: Test Procedure for Metal Halide Lamp Fixtures'' (RIN1904–AE17) received in the Office of the President of the Senate on July 27, 2022; to the Committee on Energy and Natural Resources.

EC–4704. A communication from the Associate Director of the Regulatory Management Division, Environmental Protection Agency, transmitting, pursuant to law, the report of a rule entitled ''National Emission Standards for Hazardous Air Pollutants; Delegation of Authority to Oklahoma'' (FRL No. 8847–02–R6) received in the Office of the President of the Senate on July 19, 2022; to the Committee on Environment and Public Works.

EC–4705. A communication from the Associate Director of the Regulatory Management Division, Environmental Protection Agency, transmitting, pursuant to law, the report of a rule entitled ''Improvements for Heavy-Duty Engine and Vehicle Test Procedures'' ((RIN2060–AV21) (FRL No. 7423.1–01–OAR)) received in the Office of the President of the Senate on July 25, 2022; to the Committee on Environment and Public Works.

EC–4706. A communication from the Associate Director of the Regulatory Management Division, Environmental Protection Agency, transmitting, pursuant to law, the report of a rule entitled ''National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters: Amendments'' ((RIN2060–AU20) (FRL No. 6312–01–OAR)) received in the Office of the President of the Senate on July 25, 2022; to the Committee on Environment and Public Works.

EC–4707. A communication from the Associate Director of the Regulatory Management Division, Environmental Protection Agency, transmitting, pursuant to law, the report of a rule entitled ''State of Michigan Underground Injection Control (UIC) Class II Program; Primacy Approval'' (FRL No. 8378–04–OW) received in the Office of the President of the Senate on July 25, 2022; to the Committee on Environment and Public Works.

EC–4708. A communication from the Associate Director of the Regulatory Management Division, Environmental Protection Agency, transmitting, pursuant to law, the report of a rule entitled ''Air Plan Approval; Oklahoma; Volatile Organic Compound Emissions in Nonattainment Areas and Former Nonattainment Areas'' (FRL No. 8698–02–R6) received in the Office of the President of the Senate on July 25, 2022; to the Committee on Environment and Public Works.

EC–4709. A communication from the Associate Director of the Regulatory Management Division, Environmental Protection Agency, transmitting, pursuant to law, the report of a rule entitled ''Air Plan Approval; Arizona, California, Nevada; Emissions Statements Requirements'' (FRL No. 8997–02–R9) received in the Office of the President of the Senate on July 25, 2022; to the Committee on Environment and Public Works.

EC–4710. A communication from the Associate Director of the Regulatory Management Division, Environmental Protection Agency, transmitting, pursuant to law, the report of a rule entitled ''Air Plan Approval; California; Northern Sierra Air Quality Management District; Reasonably Available Control Technology'' (FRL No. 9264–02–R9) received in the Office of the President of the Senate on July 25, 2022; to the Committee on Environment and Public Works.

EC–4711. A communication from the Associate Director of the Regulatory Management Division, Environmental Protection Agency, transmitting, pursuant to law, the report of a rule entitled ''Air Plan Approval; Missouri; Removal of Control of Emissions from Bakery Ovens'' (FRL No. 9767–02–R7) received in the Office of the President of the Senate on July 25, 2022; to the Committee on Environment and Public Works.

EC–4712. A communication from the Chief of the Division of Bird Conservation, Fish and Wildlife Service, Department of the Interior, transmitting, pursuant to law, the report of a rule entitled ''Migratory Bird Permits; Administrative Updates to 50 CFR Parts 21 and 22'' (RIN1018–BF59) received on July 20, 2022; to the Committee on Environment and Public Works.

EC–4713. A communication from the Regulations Writer, Office of Regulations and Reports Clearance, Social Security Administration, transmitting, pursuant to law, the report of a rule entitled ''Extension of Expiration Dates for Three Body System Listings'' (RIN0960–AI73) received in the Office of the President of the Senate on July 25, 2022; to the Committee on Finance.

EC–4714. A communication from the Chief of the Trade and Commercial Regulations Branch, Bureau of Customs and Border Protection, Department of Homeland Security, transmitting, pursuant to law, the report of a rule entitled ''Extension and Amendment of Import Restrictions on Archaeological and Ethnological Material from Cyprus'' ((RIN1515–AE74) (CBP Dec. 22–15)) received in the Office of the President of the Senate on July 25, 2022; to the Committee on Finance.

EC–4715. A communication from the Assistant Secretary, Legislative Affairs, Department of State, transmitting, pursuant to law, a report entitled ''Determination Under Sections 506(a)(1) and 614(a)(1) of the Foreign Assistance Act of 1961 to Provide Military Assistance to Ukraine''; to the Committee on Foreign Relations.

EC–4716. A communication from the Director, Office of Management and Budget, Executive Office of the President, transmitting, pursuant to law, a report and the Uniform Resource Locator (URL) for the report on other U.S. contributions to the United Nations and its affiliated agencies during fiscal year 2020; to the Committee on Foreign Relations.

EC–4717. A communication from the Senior Advisor, Department of Health and Human Services, transmitting, pursuant to law, a report relative to a vacancy in the position of Director of the National Institutes of Health, Department of Health and Human Services, received in the Office of the President of the Senate on July 27, 2022; to the Committee on Health, Education, Labor, and Pensions.

EC–4718. A communication from the Board Members, Railroad Retirement Board, transmitting, pursuant to law, an annual report relative to the Board's compliance with the Government in the Sunshine Act during calendar year 2021; to the Committee on Homeland Security and Governmental Affairs.

EC–4719. A communication from the Senior Advisor, Department of Health and Human Services, transmitting, pursuant to law, a report relative to a vacancy in the position of Commissioner of the Administration for Native Americans, Department of Health and Human Services, received in the Office of the President of the Senate on July 25, 2022; to the Committee on Indian Affairs.

EC–4720. A communication from the Branch Chief of the Office of Sustainable Fisheries, National Marine Fisheries Service, Department of Commerce, transmitting, pursuant to law, the report of a rule entitled ''Fisheries of the Northeastern United States; Summer Flounder Fishery; Retroactive Quota Transfer from NC to MA'' (RIN0648–XA843) received in the Office of the President of the Senate on July 25, 2022; to the Committee on Commerce, Science, and Transportation.

EC–4721. A communication from the Attorney Advisor, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, transmitting, pursuant to law, the report of a rule entitled ''Hazardous Materials: Harmonization with International Standards'' (RIN2137–AF46) received in the Office of the President of the Senate on July 25, 2022; to the Committee on Commerce, Science, and Transportation.

EC–4722. A communication from the Program Analyst, Consumer and Governmental Affairs Bureau, Federal Communications Commission, transmitting, pursuant to law, the report of a rule entitled ''Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Petition for Rulemaking of Sprint Corporation, Report and Order'' ((FCC 22–48) (CG Docket No. 03–123)) received in the Office of the President of the Senate on July 20, 2022; to the Committee on Commerce, Science, and Transportation.

EC–4723. A communication from the Program Analyst, Consumer and Governmental Affairs Bureau, Federal Communications Commission, transmitting, pursuant to law, the report of a rule entitled ''Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Structure and Practices of the Video Relay Service Program; Misuse of Internet Protocol Relay Service'' ((FCC 22–49) (CG Docket No. 03–123) (CG Docket No. 10–51) (CG Docket No. 12–38)) received in the Office of the President of the Senate on July 20, 2022; to the Committee on Commerce, Science, and Transportation.

EC–4724. A communication from the Program Analyst, Wireless Telecommunications Bureau, Federal Communications Commission, transmitting, pursuant to law, the report of a rule entitled ''Rates for Interstate Inmate Calling Services'' (WC Docket No. 12–375) received in the Office of the President of the Senate on July 20, 2022; to the Committee on Commerce, Science, and Transportation.

EC–4725. A communication from the Program Analyst, Consumer and Governmental Affairs Bureau, Federal Communications Commission, transmitting, pursuant to law, the report of a rule entitled ''Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Structure and Practices of the Video Relay Service Program; Misuse of Internet Protocol (IP) Captioned Telephone Service; Petition for Rulemaking and Interim Waiver of Convo Communications, LLC, Report and Order'' ((FCC 22–49) (CG Docket No. 03–123) (CG Docket No. 10–51) (CG Docket No. 13–24)) received in the Office of the President of the Senate on July 20, 2022; to the Committee on Commerce, Science, and Transportation.

PETITIONS AND MEMORIALS

The following petitions and memorials were laid before the Senate and were referred or ordered to lie on the table as indicated:

POM–173. A resolution adopted by the House of Representatives of the State of Louisiana urging the United States Congress to enact federal legislation requiring food service establishments to notify patrons if they are serving imported shrimp; to the Committee on Agriculture, Nutrition, and Forestry.

HOUSE RESOLUTION NO. 253

Whereas, according to the National Oceanic and Atmospheric Administration, in 2019 the United States imported six billion pounds of edible seafood products, including one and one half billion pounds of shrimp, an increase of nearly six and one half million pounds more than the shrimp imported in 2018; and

Whereas, the 2019 shrimp imports alone, valued at six billion dollars, accounted for twenty-seven percent of the total value of imported seafood that year, which reached twenty-two billion dollars; and

Whereas, it is estimated that over half of the imported seafood consumed in the United States is from aquaculture, or seafood farming, rather than wild-caught; and

Whereas, the United States Food and Drug Administration (FDA) is responsible for the safety of all fish and fishery products entering the United States and sold in Louisiana; and

Whereas, the FDA's seafood safety program is governed by its Hazard Analysis Critical Control Point regulations, which address food safety management through the analysis and control of biological, chemical, and physical hazards from raw material production, procurement and handling, to manufacturing, distribution, and consumption of the finished product; and

Whereas, FDA regulations are supposed to measure compliance for imported seafood with inspections of foreign processing facilities, sampling of seafood offered for import into the United States, domestic surveillance sampling of imported products, inspections of seafood importers, foreign country program assessments, and the use of information from foreign partners and FDA overseas offices; and

Whereas, in 2011 the FDA was only inspecting two percent of the seafood imported into the United States; and

Whereas, unfortunately 2011 is the last year for which data regarding the percentage of imports inspected is available due to a lack of transparency and inadequate assessment measures; and

Whereas, in 2011 the Government Accountability Office (GAO) noted that the FDA's assessments of foreign aquaculture operations was limited by the FDA's lack of procedures, criteria, and standards; and ten years later, a 2021 GAO report found that the agency was failing to monitor the effectiveness of its own enforcement policies and procedures; and

Whereas, in contrast, the European Union regularly conducts physical checks of approximately twenty percent of all imported fish products that are fresh, frozen, dry, salted, or hermetically sealed, and for certain fishery products, physical checks are conducted on approximately fifty percent of imports; and

Whereas, the Louisiana State University School of Renewable Natural Resources published a 2020 paper titled ''Determination of Sulfite and Antimicrobial Residue in Imported Shrimp to the USA'', which presented findings from a study of shrimp imported from India, Thailand, Indonesia, Vietnam, China, Bangladesh, and Ecuador and purchased from retail stores in Baton Rouge, Louisiana; and

Whereas, a screening of these shrimp for sulfites and residues from antimicrobial drugs found the following: (1) five percent of the shrimp contained malachite green, (2) seven percent contained oxytetracycline, (3) seventeen percent contained fluoroquinolone, and (4) seventy percent contained nitrofurantoin, all of which have been banned by the FDA in domestic aquaculture operations; and

Whereas, although the FDA requires that food products exposed to sulfites must include a label with a statement about the presence of sulfites, of the forty-three percent of these locally purchased shrimp found to contain sulfites, not one package complied with this labeling requirement; and

Whereas the drug and sulfite residues included in this screening, can be harmful to human health during both handling and consumption and have been known to cause all of the following: liver damage and tumors, reproductive abnormalities, cardiac arrhythmia, renal failure, hemolysis, asthma attacks, and allergic reactions; and

Whereas, the results of this study confirm that existing screening and enforcement measures for imported seafood are insufficient; whatever the percentage of imports inspected may be, seafood is currently being imported that contains unsafe substances that put American consumers at risk; and

Whereas, because imported seafood is not held to the same standards as domestic seafood, domestic fishing industries are put at a distinct and significant disadvantage commercially; and

Whereas, according to the Louisiana Department of Wildlife and Fisheries, the average value of Louisiana shrimp fell from three dollars eighty cents per pound in 1980 to one dollar fifty cents per pound in 2017; and

Whereas, this unfair competition allows foreign competitors to flood the United States market with shrimp harvested under intensive farming practices using antimicrobial drugs, while devastating local industries and the coastal communities built around them; and

Whereas, Louisiana passed a law in 2019 requiring food service establishments to provide notice to patrons that they are serving shrimp imported from, a foreign country; and

Whereas, Louisiana Revised Statute 40:5.5.4 requires any food service establishment that sells or provides cooked or prepared shrimp originating outside the United States to display the country of origin of such shrimp, or denote that it is imported, on all menus in the same font as the rest of the menu, or if no menu is used, to display such information on a sign at least eighteen inches tall and wide, located in a conspicuous place, with lettering at least one inch in size; and

Whereas, like Louisiana consumers, consumers across the United States deserve to be protected from harmful chemicals and residues found in imported shrimp; and

Whereas, consumers across the United States likewise have the right to know whether the shrimp prepared and served to them in food service establishments are imported; therefore, be it

Resolved, That the House of Representatives of the Legislature of Louisiana does hereby memorialize the United States Congress to enact federal legislation requiring food service establishments to provide notice to patrons if they are serving imported shrimp; and be it further

Resolved, That a copy of this Resolution be transmitted to the presiding officers of the Senate and the House of Representatives of Congress and to each member of the Louisiana congressional delegation.

POM–174. A resolution adopted by the House of Representatives of the State of Louisiana urging the United States Congress to support the Water Resources Development Act of 2022, including Congressman Troy Carter's amendment to review recreational hazards along the banks of the Mississippi River, in order to protect lives by alerting the public to dangerous conditions on the river and riverbank; to the Committee on Environment and Public Works.

HOUSE RESOLUTION NO. 210

Whereas, three children tragically lost their lives in Algiers on April 23, 2022; and

Whereas, 8–year-old Ally Wilson, 14–year-old Brandy Wilson, and 15–year-old Kevin Poole went missing while playing on the bank of the Mississippi River near the Crescent City Connection and are believed to have been taken by the strong current of the river; and

Whereas, this devastating tragedy has called attention to the dangers posed by open access to the banks of the Mississippi River and the lack of safety measures and warning signs cautioning the public against hazards along the riverbank and dangerous river conditions; and

Whereas, the New Orleans City Council unanimously passed a resolution directing several government agencies to take all necessary steps to install warning signs in the area where these children accessed the river; and

Whereas, Congress is currently considering the Water Resources and Development Act of 2022 (WRDA), a bill passed by every session of Congress that authorizes and funds the activities of the United States Army Corps of Engineers relative to flood control, navigation, and ecosystem restoration; and

Whereas, the Mississippi River levee system is under the jurisdiction of the United States Army Corps of Engineers and the banks of the Mississippi River can be regulated through legislation under WRDA; and

Whereas, on May 18, 2022, Congressman Troy Carter of Louisiana was able to add an amendment to the United States House of Representatives version of WRDA, introduced as H.R. 7776 of the 117th Congress, which would require the United States Army Corps of Engineers to review potential threats to human life and safety from recreational areas at the banks of the Mississippi River in Louisiana and to install signage and other measures at such recreational areas necessary to alert the public of hazardous water conditions or to otherwise minimize or eliminate any identified threats to human life and safety; and

Whereas, these efforts by the City of New Orleans and Congressman Troy Carter have the potential to save lives and prevent the type of tragic loss experienced by the Wilson and Poole families, and the Algiers community, this spring: Now, Therefore, be it

Resolved, That the House of Representatives of the Legislature of Louisiana does hereby memorialize the United States Congress to support the Water Resources Development Act of 2022, including Congressman Troy Carter's amendment to review recreational hazards along the banks of the Mississippi River, in order to protect lives by alerting the public to dangerous conditions on the river and riverbank; and be it further

Resolved, That a copy of this Resolution be transmitted to the presiding officers of the United States Senate, the House of Representatives, and to each member of the Louisiana congressional delegation.

EXECUTIVE REPORTS OF COMMITTEES

The following executive reports of nominations were submitted:

By Mr. WYDEN for the Committee on Finance.

*Jay Curtis Shambaugh, of Maryland, to be an Under Secretary of the Treasury.

By Mr. WHITEHOUSE for Mr. DURBIN for the Committee on the Judiciary.

Roopali H. Desai, of Arizona, to be United States Circuit Judge for the Ninth Circuit.

E. Martin Estrada, of California, to be United States Attorney for the Central District of California for the term of four years.

Gregory J. Haanstad, of Wisconsin, to be United States Attorney for the Eastern District of Wisconsin for the term of four years.

*Nomination was reported with recommendation that it be confirmed subject to the nominee's commitment to respond to requests to appear and testify before any duly constituted committee of the Senate.

(Nominations without an asterisk were reported with the recommendation that they be confirmed.)

INTRODUCTION OF BILLS AND JOINT RESOLUTIONS

The following bills and joint resolutions were introduced, read the first and second times by unanimous consent, and referred as indicated:

By Mr. KENNEDY (for himself and Mr. SCHATZ):

S. 4650. A bill to establish the position of Special Envoy to the Pacific Islands Forum; to the Committee on Foreign Relations.

By Mr. BARRASSO (for himself and Ms. COLLINS):

S. 4651. A bill to amend the Energy Policy and Conservation Act to require the Secretary of Energy to stipulate, as a condition on the sale at auction of any petroleum products from the Strategic Petroleum Reserve, that the petroleum products not be exported to certain countries, to prohibit such sales to certain state-owned entities, and for other purposes; to the Committee on Energy and Natural Resources.

By Mrs. BLACKBURN (for herself and Mr. SCOTT of Florida):

S. 4652. A bill to provide for the loan and lease of defense articles to the Government of Taiwan, and for other purposes; to the Committee on Foreign Relations.

By Mr. MENENDEZ (for himself and Mr. RISCH):

S. 4653. A bill to provide for certain authorities of the Department of State, and for other purposes; to the Committee on Foreign Relations.

By Ms. HASSAN (for herself and Mr. LANKFORD):

S. 4654. A bill to amend section 324 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act to incentivize States, Indian Tribes, and Territories to close disaster recovery projects by authorizing the use of excess funds for management costs for other disaster recovery projects; to the Committee on Homeland Security and Governmental Affairs.

By Mr. GRASSLEY (for himself, Mr. DURBIN, Mr. HAWLEY, Mr. WHITEHOUSE, Mrs. BLACKBURN, and Mr. OSSOFF):

S. 4655. A bill to amend title 5, United States Code, to permit the Merit Systems Protection Board to hear certain cases relating to allegations of certain reprisals by employees of the Federal Bureau of Investigation; to the Committee on Homeland Security and Governmental Affairs.

By Mr. PETERS:

S. 4656. A bill to reauthorize and amend the Homeland Security Act of 2002 to create stronger accountability mechanisms for Joint Task Forces; to the Committee on Homeland Security and Governmental Affairs.

By Ms. CORTEZ MASTO (for herself, Mr. MENENDEZ, and Mrs. FEINSTEIN):

S. 4657. A bill to amend the Securities Exchange Act of 1934 to establish a grant program to fund qualified investor advocacy clinics, and for other purposes; to the Committee on Banking, Housing, and Urban Affairs.

By Mr. BENNET:

S. 4658. A bill to amend the Higher Education Act of 1965 to support apprenticeship programs; to the Committee on Health, Education, Labor, and Pensions.

By Mrs. MURRAY:

S. 4659. A bill making appropriations for the Departments of Labor, Health and Human Services, and Education, and related agencies for the fiscal year ending September 30, 2023, and for other purposes; to the Committee on Appropriations.

By Mrs. FEINSTEIN:

S. 4660. A bill making appropriations for energy and water development and related agencies for the fiscal year ending September 30, 2023, and for other purposes; to the Committee on Appropriations.

By Ms. BALDWIN:

S. 4661. A bill making appropriations for Agriculture, Rural Development, Food and Drug Administration, and Related Agencies for the fiscal year ending September 30, 2023, and for other purposes; to the Committee on Appropriations.

By Mr. COONS:

S. 4662. A bill making appropriations for the Department of State, foreign operations, and related programs for the fiscal year ending September 30, 2023, and for other purposes; to the Committee on Appropriations.

By Mr. TESTER:

S. 4663. A bill making appropriations for the Department of Defense for the fiscal year ending September 30, 2023, and for other purposes; to the Committee on Appropriations.

By Mrs. SHAHEEN:

S. 4664. A bill making appropriations for the Departments of Commerce and Justice, Science, and Related Agencies for the fiscal year ending September 30, 2023, and for other purposes; to the Committee on Appropriations.

By Mr. MARKEY (for himself, Mr. BLUMENTHAL, Ms. WARREN, and Mr. WHITEHOUSE):

S. 4665. A bill to provide for cash refunds for canceled airline flights and tickets; to the Committee on Commerce, Science, and Transportation.

By Mrs. FEINSTEIN (for herself, Mr. PADILLA, and Mr. HICKENLOOPER):

S. 4666. A bill to amend the Internal Revenue Code of 1986 to establish a deduction for attorney fees awarded with respect to certain wildfire damages and to exclude from gross income settlement funds received with respect to such damages; to the Committee on Finance.

By Ms. BALDWIN (for herself and Mr. GRASSLEY):

S. 4667. A bill to amend the Agricultural Foreign Investment Disclosure Act of 1978 to require additional reporting and public disclosure of information; to the Committee on Agriculture, Nutrition, and Forestry.

By Mr. HEINRICH (for himself and Mr. LUJÁN):

S. 4668. A bill to designate the facility of the United States Postal Service located at 400 North Main Street in Belen, New Mexico, as the ''U.S. Senator Dennis Chavez Post Office''; to the Committee on Homeland Security and Governmental Affairs.

By Mrs. FEINSTEIN (for herself and Mr. PADILLA):

S. 4669. A bill to establish the Western Riverside National Wildlife Refuge, and for other purposes; to the Committee on Environment and Public Works.

By Mr. SCHATZ:

S. 4670. A bill making appropriations for the Departments of Transportation, and Housing and Urban Development, and related agencies for the fiscal year ending September 30, 2023, and for other purposes; to the Committee on Appropriations.

By Mr. BENNET:

S. 4671. A bill to provide for accurate energy appraisals in connection with residential mortgage loans, and for other purposes; to the Committee on Banking, Housing, and Urban Affairs.

By Mr. PADILLA (for himself and Mr. CRAMER):

S. 4672. A bill to modify the authority of the Secretary of Defense to transfer excess aircraft to other departments of the Federal Government and to authorize the Secretary to transfer excess aircraft to the Governor of a State, and for other purposes; to the Committee on Armed Services.

By Mr. GRASSLEY (for himself, Mrs. FEINSTEIN, Mr. SHELBY, Ms. KLOBUCHAR, Mr. CORNYN, Mr. WHITEHOUSE, Mr. TUBERVILLE, and Ms. HASSAN):

S. 4673. A bill to reauthorize the National Computer Forensics Institute of the United States Secret Service, and for other purposes; to the Committee on the Judiciary.

By Mr. MARSHALL (for Mr. DURBIN (for himself and Mr. MARSHALL)):

S. 4674. A bill to amend the Electronic Fund Transfer Act to require the Board of Governors of the Federal Reserve system to prescribe regulations relating to network competition in credit card transactions, and for other purposes; to the Committee on Banking, Housing, and Urban Affairs.

By Ms. HASSAN (for herself and Mr. CORNYN):

S. 4675. A bill to amend the Child Care and Development Block Grant Act of 1990 to provide grants to States to establish positions to minimize administrative burden on families seeking child care assistance; to the Committee on Health, Education, Labor, and Pensions.

By Mr. MARKEY (for himself, Mr. WYDEN, Ms. CANTWELL, Mr. BOOKER, Ms. KLOBUCHAR, Mr. BLUMENTHAL, Mr. MERKLEY, Ms. WARREN, Ms. BALDWIN, Mr. SANDERS, Mr. LUJÁN, Mr. SCHATZ, Mrs. FEINSTEIN, Mr. LEAHY, Mr. CARDIN, Mrs. SHAHEEN, Mrs. MURRAY, Ms. HASSAN, Ms. HIRONO, Ms. DUCKWORTH, Mr. PADILLA, Mr. HEINRICH, Ms. SMITH, Mr. VAN HOLLEN, Mr. KAINE, Mr. KING, Mr. DURBIN, Mr. MURPHY, Mr. REED, and Mr. WHITEHOUSE):

S. 4676. A bill to amend the Communications Act of 1934 to classify broadband as telecommunications service; to the Committee on Commerce, Science, and Transportation.

By Mr. HEINRICH (for himself, Mr. PADILLA, Mr. VAN HOLLEN, Ms. KLOBUCHAR, Mr. BOOKER, and Ms. WARREN):

S. 4677. A bill to increase language access to mental health services at certain health centers, and for other purposes; to the Committee on Health, Education, Labor, and Pensions.

By Mr. MURPHY:

S. 4678. A bill making appropriations for the Department of Homeland Security for the fiscal year ending September 30, 2023, and for other purposes; to the Committee on Appropriations.

By Ms. CORTEZ MASTO (for herself and Ms. CANTWELL):

S. 4679. A bill to amend the Federal Power Act and the Natural Gas Act with respect to the enforcement of certain provisions, and for other purposes; to the Committee on Energy and Natural Resources.

By Ms. CORTEZ MASTO:

S. 4680. A bill to amend the Internal Revenue Code of 1986 to establish a credit for the domestic production of rare earth magnets, and for other purposes; to the Committee on Finance.

By Mr. WHITEHOUSE (for himself, Ms. CORTEZ MASTO, Ms. WARREN, Ms. HIRONO, Mr. BLUMENTHAL, Mr. WYDEN, Mr. PADILLA, and Mrs. GILLIBRAND):

S. 4681. A bill to establish a process for expedited consideration of legislation relating to decisions by the Supreme Court of the United States; to the Committee on the Judiciary.

By Mr. MARSHALL (for himself, Mr. BARRASSO, and Mr. THUNE):

S. 4682. A bill to provide for disapproval by Congress of the invocation of authorities under the Defense Production Act of 1950; to the Committee on Banking, Housing, and Urban Affairs.

By Mr. PORTMAN (for himself and Mr. BROWN):

S. 4683. A bill to amend the River and Harbor Act of 1958 to improve provisions relating to invasive species management, and for other purposes; to the Committee on Environment and Public Works.

By Mr. PORTMAN (for himself and Mr. BROWN):

S. 4684. A bill to provide for the implementation of dredged material management plans at certain federally authorized harbors, and for other purposes; to the Committee on Environment and Public Works.

By Mr. VAN HOLLEN:

S. 4685. A bill making appropriations for financial services and general government for the fiscal year ending September 30, 2023, and for other purposes; to the Committee on Appropriations.

By Mr. MERKLEY:

S. 4686. A bill making appropriations for the Department of the Interior, environment, and related agencies for the fiscal year ending September 30, 2023, and for other purposes; to the Committee on Appropriations.

By Mr. PETERS (for himself, Mr. JOHNSON, Ms. SINEMA, and Ms. HASSAN):

S. 4687. A bill to enhance the authority granted to the Department of Homeland Security and Department of Justice with respect to unmanned aircraft systems and unmanned aircraft, and for other purposes; to the Committee on Homeland Security and Governmental Affairs.

SUBMISSION OF CONCURRENT AND SENATE RESOLUTIONS

The following concurrent resolutions and Senate resolutions were read, and referred (or acted upon), as indicated:

By Mr. YOUNG (for himself, Mr. CARPER, Mr. CARDIN, Mr. CRAPO, Mr. CORNYN, and Mr. WYDEN):

S. Res. 727. A resolution expressing the sense of the Senate that the United States should negotiate strong, inclusive, and forward-looking rules on digital trade and the digital economy with like-minded countries as part of its broader trade and economic strategy in order to ensure that the United States values of democracy, rule of law, freedom of speech, human and worker rights, privacy, and a free and open internet are at the very core of digital governance; to the Committee on Finance.

By Mr. SCOTT of Florida (for himself, Mr. RUBIO, Mr. CRUZ, and Mr. BRAUN):

S. Res. 728. A resolution commending the bravery, courage, and resolve of the human rights and pro-democracy activists in Cuba one year after the historic march led by such activists through the streets of Cuba to exercise the fundamental right to peacefully assemble and speak out against the human rights atrocities committed by the brutal, totalitarian, and illegitimate Communist regime in Cuba; to the Committee on Foreign Relations.

By Mr. LEE (for himself, Mr. TILLIS, Mr. BRAUN, Mr. RISCH, Mrs. FISCHER, Mr. CRUZ, Mr. RUBIO, Mr. HAWLEY, Mrs. HYDE-SMITH, Mr. TUBERVILLE, Mr. WICKER, Mr. SASSE, Mrs. BLACKBURN, Mr. MARSHALL, Mr. INHOFE, Mr. DAINES, Mr. SCOTT of Florida, Mr. YOUNG, Mr. THUNE, Mr. JOHNSON, Mr. SCOTT of South Carolina, and Mr. GRASSLEY):

S. Res. 729. A resolution designating the week beginning November 7, 2022, as ''National Pregnancy Center Week'' to recognize the vital role that community-supported pregnancy centers play in saving lives and serving women and men faced with difficult pregnancy decisions; to the Committee on the Judiciary.

By Mr. RUBIO (for himself, Mr. MENENDEZ, Mr. COTTON, Mr. CARDIN, Mr. KAINE, and Mr. COONS):

S. Res. 730. A resolution remembering the 30th anniversary of the bombing of the Embassy of Israel in Buenos Aires on March 17, 1992, the 28th anniversary of the bombing of the Argentine-Israeli Mutual Association building in Buenos Aires on July 18, 1994, and recommitting to efforts to uphold justice for the victims of the attacks; to the Committee on Foreign Relations.

By Mr. BOOKER (for himself, Mr. MARKEY, Mr. DURBIN, Mrs. FEINSTEIN, Mr. KAINE, Ms. KLOBUCHAR, Mr. PADILLA, Mr. BLUMENTHAL, and Mrs. MURRAY):

S. Res. 731. A resolution expressing support for the recognition of July 2022 as ''Muslim-American Heritage Month'' and celebrating the heritage and culture of Muslim Americans in the United States; to the Committee on the Judiciary.

ADDITIONAL COSPONSORS

S. 766

At the request of Ms. CORTEZ MASTO, the name of the Senator from New Jersey (Mr. BOOKER) was added as a cosponsor of S. 766, a bill to amend the Internal Revenue Code of 1986 to allow an above-the-line deduction for attorney fees and costs in connection with consumer claim awards.

S. 1157

At the request of Mr. CASEY, the name of the Senator from Hawaii (Ms. HIRONO) was added as a cosponsor of S. 1157, a bill to amend the Internal Revenue Code of 1986 to allow workers an above-the-line deduction for union dues and expenses and to allow a miscellaneous itemized deduction for workers for all unreimbursed expenses incurred in the trade or business of being an employee.

S. 1429

At the request of Ms. COLLINS, the name of the Senator from New Hampshire (Ms. HASSAN) was added as a cosponsor of S. 1429, a bill to provide compensation for United States victims of Libyan state-sponsored terrorism, and for other purposes.

S. 1578

At the request of Ms. SMITH, the name of the Senator from Maine (Mr. KING) was added as a cosponsor of S. 1578, a bill to amend the Public Health Service Act to authorize a loan repayment program for mental health professionals to relieve workforce shortages, and for other purposes.

S. 1981

At the request of Mr. KING, the name of the Senator from Rhode Island (Mr. WHITEHOUSE) was added as a cosponsor of S. 1981, a bill to amend the Internal Revenue Code of 1986 to modify rules relating to donor advised funds, and for other purposes.

S. 2130

At the request of Mr. WHITEHOUSE, the name of the Senator from California (Mrs. FEINSTEIN) was added as a cosponsor of S. 2130, a bill to modify the disposition of certain outer Continental Shelf revenues and to open Federal financial sharing to heighten opportunities for renewable energy, and for other purposes.

S. 2273

At the request of Mr. BRAUN, the names of the Senator from Iowa (Mr. GRASSLEY), the Senator from Alabama (Mr. TUBERVILLE) and the Senator from West Virginia (Mrs. CAPITO) were added as cosponsors of S. 2273, a bill to authorize Inspectors General to continue operations during a lapse in appropriations, and for other purposes.

S. 2677

At the request of Mr. BOOKER, the name of the Senator from Oregon (Mr. WYDEN) was added as a cosponsor of S. 2677, a bill to amend the Truth in Lending Act to limit overdraft fees and establish fair and transparent practices related to the marketing and provision of overdraft coverage programs at depository institutions, and for other purposes.

S. 2710

At the request of Mr. BLUMENTHAL, the names of the Senator from Rhode Island (Mr. WHITEHOUSE) and the Senator from Rhode Island (Mr. REED) were added as cosponsors of S. 2710, a bill to promote competition and reduce gatekeeper power in the app economy, increase choice, improve quality, and reduce costs for consumers.

S. 2931

At the request of Mr. TUBERVILLE, the name of the Senator from Florida (Mr. SCOTT) was added as a cosponsor of S. 2931, a bill to amend the Defense Production Act of 1950 to prevent harm and disruption to the United States agriculture industry by protecting against foreign influence over agriculture production and supply chains, and for other purposes.

S. 3018

At the request of Mr. MARSHALL, the names of the Senator from California (Mrs. FEINSTEIN) and the Senator from Florida (Mr. RUBIO) were added as cosponsors of S. 3018, a bill to amend title XVIII of the Social Security Act to establish requirements with respect to the use of prior authorization under Medicare Advantage plans, and for other purposes.

S. 3518

At the request of Mr. SCHATZ, the name of the Senator from Rhode Island (Mr. WHITEHOUSE) was added as a cosponsor of S. 3518, a bill to increase the rates of pay under the statutory pay systems and for prevailing rate employees by 5.1 percent, and for other purposes.

S. 3742

At the request of Mrs. CAPITO, the names of the Senator from Georgia (Mr. WARNOCK) and the Senator from Michigan (Ms. STABENOW) were added as cosponsors of S. 3742, a bill to establish a pilot grant program to improve

recycling accessibility, and for other purposes.

S. 4003

At the request of Mr. CORNYN, the name of the Senator from Montana (Mr. TESTER) was added as a cosponsor of S. 4003, a bill to amend the Omnibus Crime Control and Safe Streets Act of 1968 to provide for training on alternatives to use of force, de-escalation, and mental and behavioral health and suicidal crises.

S. 4009

At the request of Mr. CASEY, the names of the Senator from Virginia (Mr. KAINE) and the Senator from Michigan (Ms. STABENOW) were added as cosponsors of S. 4009, a bill to amend title XVIII of the Social Security Act to rebase the calculation of payments for sole community hospitals and Medicare-dependent hospitals, and for other purposes.

S. 4069

At the request of Mr. LANKFORD, the name of the Senator from Idaho (Mr. CRAPO) was added as a cosponsor of S. 4069, a bill to amend the National Firearms Act to provide an exception for stabilizing braces, and for other purposes.

S. 4105

At the request of Mr. BROWN, the name of the Senator from Maryland (Mr. VAN HOLLEN) was added as a cosponsor of S. 4105, a bill to treat certain liquidations of new motor vehicle inventory as qualified liquidations of LIFO inventory for purposes of the Internal Revenue Code of 1986.

S. 4168

At the request of Mr. PORTMAN, the name of the Senator from Virginia (Mr. WARNER) was added as a cosponsor of S. 4168, a bill to amend title 54, United States Code, to reauthorize the National Park Foundation.

S. 4192

At the request of Mr. CASEY, the name of the Senator from Hawaii (Ms. HIRONO) was added as a cosponsor of S. 4192, a bill amend the Internal Revenue Code of 1986 to end the tax subsidy for employer efforts to influence their workers' exercise of their rights around labor organizations and engaging in collective action.

S. 4203

At the request of Ms. COLLINS, the name of the Senator from Georgia (Mr. WARNOCK) was added as a cosponsor of S. 4203, a bill to extend the National Alzheimer's Project.

S. 4279

At the request of Mr. PADILLA, the name of the Senator from California (Mrs. FEINSTEIN) was added as a cosponsor of S. 4279, a bill to increase efficiency and conservation in public water systems, and for other purposes.

S. 4325

At the request of Ms. SINEMA, the names of the Senator from Minnesota (Ms. KLOBUCHAR) and the Senator from California (Mrs. FEINSTEIN) were added as cosponsors of S. 4325, a bill to amend the Federal Credit Union Act to modify the frequency of board of directors meetings, and for other purposes.

S. 4416

At the request of Mr. CASSIDY, the name of the Senator from Kentucky (Mr. PAUL) was added as a cosponsor of S. 4416, a bill to amend the Internal Revenue Code of 1986 to allow a credit against tax for charitable donations to nonprofit organizations providing education scholarships to qualified elementary and secondary students.

S. 4460

At the request of Mr. SCOTT of Florida, the name of the Senator from Nevada (Ms. ROSEN) was added as a cosponsor of S. 4460, a bill to require the Commissioner of U.S. Customs and Border Protection to regularly review and update policies and manuals related to inspections at ports of entry.

S. 4612

At the request of Mr. MARKEY, the name of the Senator from Vermont (Mr. LEAHY) was added as a cosponsor of S. 4612, a bill to protect a person's ability to access contraceptives and to engage in contraception, and to protect a health care provider's ability to provide contraceptives, contraception, and information related to contraception.

S. 4634

At the request of Mr. BARRASSO, the name of the Senator from Kansas (Mr. MARSHALL) was added as a cosponsor of S. 4634, a bill to require the Secretary of Energy to administer polygraph examinations to certain foreign nationals with access to nonpublic areas or information of the National Laboratories.

S. RES. 713

At the request of Mr. RISCH, the name of the Senator from Mississippi (Mrs. HYDE-SMITH) was added as a cosponsor of S. Res. 713, a resolution recognizing Russian actions in Ukraine as a genocide.

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS

By Mrs. FEINSTEIN (for herself, Mr. PADILLA, and Mr. HICKENLOOPER):

S. 4666. A bill to amend the Internal Revenue Code of 1986 to establish a deduction for attorney fees awarded with respect to certain wildfire damages and to exclude from gross income settlement funds received with respect to such damages; to the Committee on Finance.

Mrs. FEINSTEIN. Mr. President, I rise to speak in support of legislation that I introduced today along with Senators ALEX PADILLA and JOHN HICKENLOOPER. This is a companion to the bipartisan bill that Representative MIKE THOMPSON has introduced in the House of Representatives.

In 2020, the Fire Victim Trust was established after Pacific Gas & Electric, PG&E, was found legally responsible for major California wildfires in 2015, 2017, and 2018. PG&E contributed about $13 billion to this fund to pay victims of these wildfires to cover losses they suffered.

Unfortunately, the specific situations of each of these victims is different, and it is unclear to many whether they will need to pay Federal income tax on the amounts they receive. Moreover, it is unfair that these victims should have to worry about paying taxes on amounts that are simply intended to make them whole.

In addition, about 30 percent of settlement payouts are devoted to attorney fees, for attorneys whom the victims did not hire. It appears that victims will even owe taxes on the full amount of the settlement, including these attorney fees.

This is a problem now for wildfire victims in California. However, as the frequency and severity of wildfires grows across the Western United States due to climate change, it is more likely that this is a problem that California and other States will face again.

Our legislation would do two things. First, it would clarify that such wildfire settlement fees are not taxable. Second, it would create an above-the-line tax deduction for relevant attorney fees. This would provide tax certainty and fairness to wildfire settlement victims now and into the future.

With the incidence of wildfires rising, this is an important issue for Congress to address now to avoid victims having to worry about paying taxes on settlement payments that are meant to make them whole from devastating losses that many of them have suffered.

I hope my colleagues will join me in support of this bill.

By Mrs. FEINSTEIN (for herself and Mr. PADILLA):

S. 4669. A bill to establish the Western Riverside National Wildlife Refuge, and for other purposes; to the Committee on Environment and Public Works.

Mrs. FEINSTEIN. Mr. President, I am pleased to introduce the Western Riverside County National Wildlife Refuge Act, along with my California colleague, Senator ALEX PADILLA.

As our country's population grows, so does the need for infrastructure like housing and highways. However, we must find a way to balance the needs of growth with the preservation of our natural resources, including endangered species habitat and green space for the health and safety of our communities.

Senator PADILLA and I are proud this legislation would accomplish those goals by creating a Federal wildlife refuge in western Riverside County as part of a collaborative land management plan created by Riverside County.

The newly created wildlife refuge would provide expanded recreation, conservation, and educational opportunities for the local community—one of the fastest growing in the Nation.

This legislation builds off Riverside County's multiple species habitat conservation plan, allowing land that has already been acquired by the Western Riverside County Regional Conservation Authority to be included in the new Federal wildlife refuge this bill would create.

Our bill would establish a new unit of the National Wildlife Refuge System—the Western Riverside County National Wildlife Refuge. The refuge would be comprised of donated lands from Western Riverside County Regional Conservation Authority, as well as any additional lands deemed appropriate by the Interior Department acquired from willing sellers or donors, including Federal, State, or local agencies, Tribes, or private land owners.

This refuge would not only create increased recreation, outdoor access, and educational opportunities in Southern California but also work to protect endangered species in the region like the arroyo toad, the southwestern willow flycatcher, and the quino checkerspot butterfly. These protections would in turn help streamline infrastructure projects and support smart growth and land management planning.

As temperatures continue to rise and California experiences another historic drought and wildfire season, it is more important than ever to ensure that we conserve green spaces. As I stated earlier, Riverside County's population is one of the fastest growing in the country, and it is well documented that human development can have damaging effects on the health of endangered and threatened species. Additionally, overdevelopment results in poor community health and well-being.

That is why smart, collaborative land management planning is our best option on how to move forward with a growing population and economy, while safeguarding the resources that keep our communities and wildlife populations healthy.

This bill would support the conservation of habitat for 146 different species in the region, including 33 species that are listed as threatened or endangered by the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife. The acquisition boundary for the refuge was created in collaboration with the county, environmental groups and the U.S. Fish and Wildlife Service. The boundary area expands on local conservation efforts and increase access to green spaces, especially to underserved communities.

The coronavirus pandemic and recent extreme heat waves in our State have served to underscore the importance of ensuring access and preservation of open spaces, especially as our Nation's population grows and its cities expand.

This bill also meets the Biden administration's call to conserve 30 percent of U.S. lands and waters by 2030, an initiative known as America the Beautiful. We are proud the creation of this refuge would contribute to that important goal.

I urge my colleagues to join me in supporting this legislation.

By Mr. PADILLA (for himself and Mr. CRAMER):

S. 4672. A bill to modify the authority of the Secretary of Defense to transfer excess aircraft to other departments of the Federal Government and to authorize the Secretary to transfer excess aircraft to the Governor of a State, and for other purposes; to the Committee on Armed Services.

Mr. PADILLA, Mr. President, I rise to introduce the bipartisan Emergency Aircraft Act of 2022.

Currently, DOD has a program to transfer excess aircraft to Federal Agencies for wildfire suppression purposes. However, under current law, DOD is limited to providing only seven aircraft total to each Agency.

After years of increasingly catastrophic wildfires, it has become clear that the Federal Government must do more to support suppression efforts to get fires under control quickly, as well as support search and rescue to keep communities safe. If there are excess aircraft available, they should be put to use suppressing fires and protecting communities.

Furthermore, as fire activity has exploded in the past few years, States have stepped up and greatly increased their own suppression efforts. They should also be allowed to utilize these excess aircraft to increase suppression capabilities and put fires out faster. However, under current law, States do not have access to these excess aircraft.

This bill would remove the arbitrary cap on how many excess aircraft DOD can transfer to Federal Agencies for wildfire suppression efforts; allow States to receive excess aircraft; expand the purposes for which these aircraft could be used from just ''wildfire suppression purposes'' to include purposes of ''wildfire suppression, search and rescue, or emergency operations pertaining to wildfires''; and mandate an annual report from DOD to the Committees on Armed Services of the Senate and the House of Representatives on aircraft transferred during the previous fiscal year.

This bill represents a commonsense step forward to expand fire suppression and search and rescue operations across the Federal Government and State governments.

I want to thank Senator CRAMER for joining me in this bipartisan effort, and I urge my colleagues to join us in working to pass this bill as quickly as possible in light of the extreme wildfire danger facing States across the country.

SUBMITTED RESOLUTIONS

SENATE RESOLUTION 727—EXPRESSING THE SENSE OF THE SENATE THAT THE UNITED STATES SHOULD NEGOTIATE STRONG, INCLUSIVE, AND FORWARD-LOOKING RULES ON DIGITAL TRADE AND THE DIGITAL ECONOMY WITH LIKE-MINDED COUNTRIES AS PART OF ITS BROADER TRADE AND ECONOMIC STRATEGY IN ORDER TO ENSURE THAT THE UNITED STATES VALUES OF DEMOCRACY, RULE OF LAW, FREEDOM OF SPEECH, HUMAN AND WORKER RIGHTS, PRIVACY, AND A FREE AND OPEN INTERNET ARE AT THE VERY CORE OF DIGITAL GOVERNANCE

Mr. YOUNG (for himself, Mr. CARPER, Mr. CARDIN, Mr. CRAPO, Mr. CORNYN, and Mr. WYDEN) submitted the following resolution; which was referred to the Committee on Finance:

S. RES. 727

Whereas over half of the world's population, totaling more than 5,000,000,000 people, use the internet;

Whereas the digital economy encompasses the economic and social activity from billions of online connections among people, businesses, devices, and data as a result of the internet, mobile technology, and the internet of things;

Whereas the Bureau of Economic Analysis found that the digital economy contributed nearly 10.2 percent of United States gross domestic product and supported 7,800,000 United States jobs in 2020;

Whereas the technology-commerce ecosystem added 1,400,000 jobs between 2017 and 2021, and served as the main job-creating sector in 40 States;

Whereas United States jobs supported by the digital economy have sustained annual wage growth at a rate of 5.9 percent since 2010, as compared to a 4.2 percent for all jobs;

Whereas, in 2020, United States exports of digital services surpassed $520,000,000,000, accounting for more than half of all United States services exports and generating a digital services trade surplus for the United States of $214,000,000,000;

Whereas digital trade bolsters the digital economy by enabling the sale of goods on the internet and the supply of online services across borders and depends on the free flow of data across borders to promote commerce, manufacturing, and innovation;

Whereas digital trade has become increasingly vital to United States workers and businesses of all sizes, including the countless small and medium-sized enterprises that use digital technology, data flows, and e-commerce to export goods and services across the world;

Whereas digital trade has advanced entrepreneurship opportunities for women, people of color, and individuals from otherwise underrepresented backgrounds and enabled the formation of innovative start-ups;

Whereas international supply chains are becoming increasingly digitized and data driven and businesses in a variety of industries, such as construction, healthcare, transportation, and aerospace, invested heavily in digital supply chain technologies in 2020;

Whereas United States Trade Representative Katherine Tai said, ''[T]here is no bright line separating digital trade from the digital

economy—or the 'traditional' economy for that matter. Nearly every aspect of our economy has been digitized to some degree.'';

Whereas industries outside of the technology sector, such as manufacturing and agriculture, are integrating digital technology into their businesses in order to increase efficiency, improve safety, reach new customers, and remain globally competitive;

Whereas the increasing reliance on digital technologies has modernized legacy processes, accelerated workflows, increased access to information and services, and strengthened security in a variety of industries, leading to better health, environmental, and safety outcomes;

Whereas the COVID–19 pandemic has led to increased uptake and reliance on digital technologies, data flows, and e-commerce;

Whereas 90 percent of adults in the United States say that the internet has been essential or important for them personally during the COVID–19 pandemic;

Whereas United States families, workers, and business owners have seen how vital access to the internet has been to daily life, as work, education, medicine, and communication with family and friends have shifted increasingly online;

Whereas many individuals and families, especially in rural and Tribal communities, struggle to participate in the digital economy because of a lack of access to a reliable and affordable internet connection;

Whereas new developments in technology must be deployed with consideration to the unique access challenges of rural, urban underserved, and vulnerable communities;

Whereas digital trade has the power to help level the playing field and uplift those in traditionally unrepresented or underrepresented communities;

Whereas countries have negotiated international rules governing digital trade in various bilateral and plurilateral agreements, but those rules remain fragmented, and no multilateral agreement on digital trade exists within the World Trade Organization;

Whereas the United States, through free trade agreements or other digital agreements, has been a leader in developing a set of rules and standards on digital governance and e-commerce that has helped allies and partners of the United States unlock the full economic and social potential of digital trade;

Whereas Congress recognizes the need for agreements on digital trade, as indicated by its support for a robust digital trade chapter in the United States-Mexico-Canada Agreement;

Whereas other countries are operating under their own digital rules, some of which are contrary to democratic values shared by the United States and many allies and partners of the United States;

Whereas those countries are attempting to advance their own digital rules on a global scale;

Whereas examples of the plethora of nontariff barriers to digital trade that have emerged around the globe include—

(1) overly restrictive data localization requirements and limitations on cross border data flows that do not achieve legitimate public policy objectives;

(2) intellectual property rights infringement;

(3) policies that make market access contingent on forced technology transfers or voluntary transfers subject to coercive terms;

(4) web filtering;

(5) economic espionage;

(6) cybercrime exposure; and

(7) government-directed theft of trade secrets;

Whereas certain countries are pursuing or have implemented digital policies that unfairly discriminate against innovative United States technology companies and United States workers that create and deliver digital products and services;

Whereas the Government of the People's Republic of China is currently advancing a model for digital governance and the digital economy domestically and abroad through its Digital Silk Road Initiative that permits censorship, surveillance, human and worker rights abuses, forced technology transfers, and data flow restrictions at the expense of human and worker rights, privacy, the free flow of data, and an open internet;

Whereas the 2020 Country Reports on Human Rights Practices of the Department of State highlighted significant human rights issues committed by the People's Republic of China in the digital realm, including ''arbitrary interference with privacy; pervasive and intrusive technical surveillance and monitoring; serious restrictions on free expression, the press, and the internet, including physical attacks on and criminal prosecution of journalists, lawyers, writers, bloggers, dissidents, petitioners, and others as well as their family members, and censorship and site blocking'';

Whereas the United States discourages digital authoritarianism, including practices that undermine human and worker rights and result in other social and economic coercion;

Whereas allies and trading partners of the United States in the Indo-Pacific region have urged the United States to deepen economic engagement in the region by negotiating rules on digital trade and technology standards;

Whereas the digital economy has provided new opportunities for economic development, entrepreneurship, and growth in developing countries around the world;

Whereas negotiating strong digital trade principles and commitments with allies and partners across the globe enables the United States to unite like-minded economies around common standards and ensure that principles of democracy, rule of law, freedom of speech, human and worker rights, privacy, and a free and open internet are at the very core of digital governance;

Whereas United States leadership and substantive engagement is necessary to ensure that global digital rules reflect United States values so that workers are treated fairly, small businesses can compete and win in the global economy, and consumers are guaranteed the right to privacy and security;

Whereas the United States supports rules that reduce digital trade barriers, promote free expression and the free flow of information, enhance privacy protections, protect sensitive information, defend human and worker rights, prohibit forced technology transfer, and promote digitally enabled commerce; and

Whereas the United States supports efforts to cooperate with allies and trading partners to mitigate the risks of cyberattacks, address potentially illegal or deceptive business activities online, promote financial inclusion and digital workforce skills, and develop rules to govern the use of artificial intelligence and other emerging and future technologies: Now, therefore, be it

Resolved, That it is the sense of the Senate that—

(1) the United States should negotiate strong, inclusive, forward-looking, and enforceable rules on digital trade and the digital economy with like-minded countries as part of a broader trade and economic strategy to address digital barriers and ensure that the United States values of democracy, rule of law, freedom of speech, human and worker rights, privacy, and a free and open internet are at the very core of the digital world and advanced technology;

(2) in conducting such negotiations, the United States must—

(A) pursue digital trade rules that—

(i) serve the best interests of workers, consumers, and small and medium-sized enterprises;

(ii) empower United States workers;

(iii) fuel wage growth; and

(iv) lead to materially positive economic outcomes for all people in the United States;

(B) ensure that any future agreement prevents the adoption of non-democratic, coercive, or overly restrictive policies that would be obstacles to a free and open internet and harm the ability of the e-commerce marketplace to continue to grow and thrive;

(C) coordinate sufficient trade-related assistance to ensure that developing countries can improve their capacity and benefit from increased digital trade; and

(D) consult closely with all relevant stakeholders, including workers, consumers, small and medium-sized enterprises, civil society groups, and human rights advocates; and

(3) with respect to any negotiations for an agreement facilitating digital trade, the United States Trade Representative and the heads of other relevant Federal agencies must—

(A) consult closely and on a timely basis with the Committee on Finance of the Senate and the Committee on Ways and Means of the House of Representatives about the substance of those negotiations and the requisite legal authority to bind the United States to any such agreement;

(B) keep both committees fully apprised of those negotiations; and

(C) provide to those committees, including staff with appropriate security clearances, adequate access to the text of the negotiating proposal of the United States before presenting the proposal in the negotiations.

SENATE RESOLUTION 728—COMMENDING THE BRAVERY, COURAGE, AND RESOLVE OF THE HUMAN RIGHTS AND PRO-DEMOCRACY ACTIVISTS IN CUBA ONE YEAR AFTER THE HISTORIC MARCH LED BY SUCH ACTIVISTS THROUGH THE STREETS OF CUBA TO EXERCISE THE FUNDAMENTAL RIGHT TO PEACEFULLY ASSEMBLE AND SPEAK OUT AGAINST THE HUMAN RIGHTS ATROCITIES COMMITTED BY THE BRUTAL, TOTALITARIAN, AND ILLEGITIMATE COMMUNIST REGIME IN CUBA

Mr. SCOTT of Florida (for himself, Mr. RUBIO, Mr. CRUZ, and Mr. BRAUN) submitted the following resolution; which was referred to the Committee on Foreign Relations:

S. RES. 728

Whereas July 11, 2022, marked 1 year since the largest anti-government demonstration in Cuba when thousands of brave protestors took to the streets in more than 40 cities to peacefully demand access to fundamental freedoms and civil liberties and call for an end to communism, censorship, and the oppressive leadership of the Communist regime in Cuba;

Whereas the regime, in an attempt to silence the Cuban people, responded to the demonstration with a wave of terror, repression, and criminalization and detained and persecuted more than 1,400 protestors;

Whereas more than 700 of such protestors, including children, remain unjustly imprisoned and are subjected to torture and inhumane living conditions, with many of such protestors having been sentenced to decades-long prison sentences;

Whereas the ongoing imprisonment of Jose Daniel Ferrer Garcia, a Cuban human rights and democracy activist who has worked tirelessly to advocate for fundamental civil liberties for the Cuban people, is representative of the tactics of the brutal and despotic regime;

Whereas Garcia was among the hundreds of protestors who were unlawfully detained, were denied due process, and received unfair trials conducted by secret tribunals;

Whereas, according to a statement by the family of Garcia in January 2022, Garcia was subjected to months of solitary confinement, physical and psychological torture, and inhumane treatment from Cuban operatives, resulting in dire health conditions;

Whereas Garcia has suffered from severe headaches, mouth bleeding, malnutrition, bouts of coughing, and the inability to sleep;

Whereas, more than 1 year into the unjust imprisonment of Garcia by the Communist regime in Cuba, Garcia continues to be subjected to brutal, torturous, and inhumane conditions by the regime, including isolation and confinement to a small-walled cell with no access to natural light, denial of physical or verbal contact with family for months at a time, and denial of daily contact with other individuals;

Whereas, according to the family of Garcia, Garcia is now suffering from breathing problems and vision loss and shows bodily signs of ongoing torture;

Whereas the deteriorating and dire health conditions of Garcia are directly attributable to the cruel and inhumane conditions to which the regime has subjected Garcia, solely for engaging in peaceful demonstrations and calling for freedom and democracy for the people of Cuba;

Whereas hundreds of pro-democracy activists have been imprisoned solely for peacefully exercising their God-given right to freedom of expression, including—

(1) Luis Manuel Otero Alcantara and Maykel ''Osorbo'' Castillo of the San Isidro Movement;

(2) Jose Diaz Silva of the Opposition Movement for a New Republic;

(3) Arianna Lopez Roque of the Julio Machado Academy;

(4) Emiyosian Roman Rodriguez, a 17-year-old who shouted ''Patria y Vida'' and was sent to a forced labor camp for 5 years;

(5) Duannis Dabel Leon Taboada, a 22-year-old barber who was sentenced to 14 years; and

(6) young women such as Lisandra Gongora Espinosa and the Garrido sisters, Loreto Hernandez and Donaida Perez;

Whereas the illegitimate Communist regime in Cuba—

(1) is terrified of brave and courageous leaders who stand resolute in speaking out against the crimes against humanity committed by the regime; and

(2) will persecute, kidnap, torture, and eventually kill anyone who stands up against the tyranny of the regime; and

Whereas, by working together, freedom-loving nations can help bring positive change and democracy to the people of Cuba: Now, therefore, be it

Resolved, That the Senate—

(1) commends the bravery, courage, and resolve of the pro-democracy movement and all freedom activists in Cuba for risking everything to bring freedom to the Cuban people;

(2) condemns the repression of the hundreds of pro-democracy activists and political prisoners, including children, that the Cuban regime is unjustly detaining and subjecting to physical and psychological torture, and calls for the immediate and unconditional release of such prisoners;

(3) condemns the brutal torture and inhumane treatment of Jose Daniel Ferrer Garcia by the Cuban regime, and calls for an immediate humanitarian medical visit to Garcia and all political prisoners who have been unjustly and illegally detained since July 11, 2021;

(4) condemns the brutal totalitarian Communist dictatorship in Cuba, and demands an end to the suffering of the Cuban people and the impunity of the human rights abusers of the regime;

(5) calls for the international community to stand with the Cuban people and speak out against the totalitarian Communist regime in Cuba for infringing on the freedom of thought, will, expression, assembly, and prosperity of the Cuban people; and

(6) urges the President to firmly declare that the United States Government will not consider any more concessions or sanctions relief to the brutal, illegitimate Communist regime in Cuba until all conditions for removing sanctions are met in accordance with the laws of the United States.

SENATE RESOLUTION 729—DESIGNATING THE WEEK BEGINNING NOVEMBER 7, 2022, AS ''NATIONAL PREGNANCY CENTER WEEK'' TO RECOGNIZE THE VITAL ROLE THAT COMMUNITY-SUPPORTED PREGNANCY CENTERS PLAY IN SAVING LIVES AND SERVING WOMEN AND MEN FACED WITH DIFFICULT PREGNANCY DECISIONS

Mr. LEE (for himself, Mr. TILLIS, Mr. BRAUN, Mr. RISCH, Mrs. FISCHER, Mr. CRUZ, Mr. RUBIO, Mr. HAWLEY, Mrs. HYDE-SMITH, Mr. TUBERVILLE, Mr. WICKER, Mr. SASSE, Mrs. BLACKBURN, Mr. MARSHALL, Mr. INHOFE, Mr. DAINES, Mr. SCOTT of Florida, Mr. YOUNG, Mr. THUNE, Mr. JOHNSON, Mr. SCOTT of South Carolina, and Mr. GRASSLEY) submitted the following resolution; which was referred to the Committee on the Judiciary:

S. RES. 729

Whereas, for more than 100 years, young women facing unplanned pregnancies have found support from charitable organizations ranging from Catholic Charities and Jewish maternity homes to the Salvation Army;

Whereas many charitable organizations banded together on November 13, 1971, to form the first United States association of nonprofit organizations dedicated to rescuing as many lives as possible from abortion;

Whereas, as of 2019, there were approximately 2,700 pregnancy centers (also known as ''pregnancy care and resource centers'') in the United States;

Whereas women in every part of the United States turn to pregnancy centers for help, hope, and healing;

Whereas pregnancy centers are local, nonprofit organizations that provide vital and compassionate support to women and men faced with difficult pregnancy decisions;

Whereas pregnancy centers reach almost 2,000,000 people each year through a combination of client services, including—

(1) pregnancy tests;

(2) ultrasound and medical services;

(3) options counseling and education; and

(4) parenting and childbirth classes;

Whereas the estimated value of services provided in 2019 to women and men of all ages and backgrounds was nearly $270,000,000;

Whereas some pregnancy centers offer specific medical services, including—

(1) consultation with a licensed medical professional;

(2) a limited ultrasound for pregnancy confirmation; and

(3) testing for sexually transmitted infections and diseases;

Whereas the National Institute of Family and Life Advocates—

(1) provides life-affirming pregnancy centers with legal counsel, education, and training;

(2) has assisted hundreds of pregnancy centers in becoming medical clinics; and

(3) has represented nearly 1,300 pregnancy centers that currently operate as medical clinics;

Whereas more than 53,000 people in the United States volunteer at community-supported pregnancy centers each year;

Whereas more than 2,130 medical pregnancy centers provide a limited ultrasound at little or no cost to women;

Whereas, in 2019, more than 486,000 ultrasounds were performed at medical pregnancy centers;

Whereas pregnancy centers understand that pregnancy can be emotional for mothers and fathers, and the compassionate staff and trained volunteers of pregnancy centers—

(1) provide each patient with educational materials; and

(2) offer each patient emotional support and care to help each patient through difficult situations;

Whereas close to 86 percent of pregnancy centers in the United States offer specialized parenting education—

(1) through direct services on premises; or

(2) in nearby churches, schools, or other locations;

Whereas nearly every pregnancy care and resource center provides clients with material support for pregnancy and infant care, which may include—

(1) maternity clothing;

(2) baby clothes and furniture;

(3) housing assistance; or

(4) nutritional counseling and resources;

Whereas pregnancy centers—

(1) do not discriminate based on age, race, nationality, creed, religious affiliation, disability, or arbitrary circumstances; and

(2) take special care to provide help to underserved minority populations;

Whereas pregnancy centers have committed to engaging fathers so that they can acquire the skills necessary to become involved and responsible fathers;

Whereas Care Net-affiliated pregnancy centers have saved more than 823,000 babies since 2008;

Whereas Heartbeat International reports that the Abortion Pill Rescue Network has saved more than 2,000 lives;

Whereas, in the last 12 years, 8 of 10 women considering abortion when they entered a Care Net-affiliated pregnancy care and resource center ended up choosing life;

Whereas, in the last 12 years, Care Net-affiliated pregnancy centers—

(1) provided 1,300,000 free ultrasound scans;

(2) provided parenting support and education to 1,100,000 individuals;

(3) provided material resources to more than 1,700,000 individuals; and

(4) administered 3,200,000 pregnancy tests;

Whereas the 24-hour Option Line of Heartbeat International—

(1) helps carry out a mission of reaching and rescuing as many lives as possible around the world through an effective network of life-affirming pregnancy centers; and

(2) answers questions by phone, text, email, or chat before connecting an individual with the individual's local pregnancy center, where the individual will receive 1-on-1, compassionate, caring support;

Whereas Heartbeat International has made contact with over 4,000,000 women and men through the Option Line;

Whereas the Care Net Pregnancy Decision Line is the only national hotline that provides immediate pregnancy decision coaching by highly trained coaches;

Whereas Heartbeat International reports the existence of approximately 450 maternity homes in the United States;

Whereas Care Net, Heartbeat International, the National Institute of Family and Life Advocates, and other groups issued a statement entitled ''Our Commitment of Care and Competence'', which—

(1) addresses issues including—

(A) scientific and medical accuracy;

(B) truth in advertising;

(C) compassion;

(D) nondiscrimination;

(E) patient confidentiality;

(F) staff training; and

(G) a consistent life ethic; and

(2) expands the determination of the pregnancy help movement to comply with applicable legal requirements regarding—

(A) employment;

(B) fundraising;

(C) financial management;

(D) taxation;

(E) medical licensure; and

(F) operation standards;

Whereas less than 10 percent of the income of pregnancy centers in the United States is derived from governmental sources, which ensures that pregnancy centers—

(1) minimize burdens on each taxpayer; and

(2) engage local communities to provide sustainable support; and

Whereas, after the reversal of Roe v. Wade (410 U.S. 113 (1973)), pregnancy centers have wrongfully been the subject of vandalism and violence: Now, therefore, be it

Resolved, That the Senate—

(1) designates the week beginning November 7, 2022, as ''National Pregnancy Center Week'';

(2) supports the important work of pregnancy centers across the United States;

(3) appreciates and recognizes the thousands of volunteers and staff of pregnancy centers in the United States who give millions of hours of service each year to women and men who are faced with difficult pregnancy decisions; and

(4) recognizes the importance of—

(A) protecting life; and

(B) assisting women and men in need as they bring children into the world.

SENATE RESOLUTION 730—REMEMBERING THE 30TH ANNIVERSARY OF THE BOMBING OF THE EMBASSY OF ISRAEL IN BUENOS AIRES ON MARCH 17, 1992, THE 28TH ANNIVERSARY OF THE BOMBING OF THE ARGENTINE-ISRAELI MUTUAL ASSOCIATION BUILDING IN BUENOS AIRES ON JULY 18, 1994, AND RECOMMITTING TO EFFORTS TO UPHOLD JUSTICE FOR THE VICTIMS OF THE ATTACKS

Mr. RUBIO (for himself, Mr. MENENDEZ, Mr. COTTON, Mr. CARDIN, Mr. KAINE, and Mr. COONS) submitted the following resolution; which was referred to the Committee on Foreign Relations:

S. RES. 730

Whereas, on March 17, 1992, a truck laden with explosives struck and detonated at the Embassy of Israel in Buenos Aires, Argentina, killing 29 people and wounding more than 200 others;

Whereas Argentina is home to the largest Jewish community in Latin America—and the sixth largest in the world, outside Israel;

Whereas, in 1999, the Supreme Court of Argentina, after conducting an investigation, found that the Lebanese terrorist organization Hezbollah was responsible for the bombing, which claimed the lives of Israeli diplomats, their relatives, and numerous Argentine citizens and children;

Whereas, 2 years after the bombing of the Embassy of Israel in Argentina, on July 18, 1994, a car bomb detonated at the Argentine Israelite Mutual Association (AMIA) Jewish Community Center building in Buenos Aires, killing 85 people and wounding more than 300 others, rendering it the deadliest terrorist attack in Argentina's history;

Whereas, for 25 years, the investigation into the AMIA bombing has been stymied by international inaction, political interference, investigative misconduct, and allegations of cover-ups, including the removal of the Federal judge in charge of the case in 2005 for ''serious'' irregularities in his handling of the case;

Whereas, in October 2006, Argentine prosecutors Alberto Nisman and Marcelo Martín Burgos formally accused the Government of Iran of directing Hezbollah to carry out the AMIA bombing;

Whereas the Argentine prosecutors charged the following Iranian nationals as suspects in the AMIA bombing:

(1) Ali Fallahijan, Iran's former intelligence minister;

(2) Mohsen Rabbani, Iran's former cultural attaché in Buenos Aires;

(3) Ahmad Reza Asghari, a former Iranian diplomat posted to Argentina;

(4) Ahmad Vahidi, Iran's former defense minister;

(5) Ali Akbar Velayati, Iran's former foreign minister;

(6) Mohsen Rezaee, former chief commander of the Iranian Islamic Revolutionary Guard Corps;

(7) Ali Akbar Hashemi Rafsanjani, former President of Iran; and

(8) Hadi Soleimanpour, former Iranian ambassador to Argentina;

Whereas, in November 2007, the International Criminal Police Organization (INTERPOL) published Red Notices on 5 of the Iranian nationals and Hezbollah operative Ibrahim Hussein Berro;

Whereas those with INTERPOL Red Notices have repeatedly traveled internationally with impunity on more than 20 occasions since 2007;

Whereas, in May 2013, Argentine prosecutor Alberto Nisman published a 500-page report accusing the Government of Iran of establishing terrorist networks throughout Latin America;

Whereas, in January 2015, Mr. Nisman released the results of an investigation alleging that then-President Fernandez de Kirchner and then-Foreign Minister Timerman conspired to cover up Iranian involvement in the 1994 AMIA bombing and that they had agreed to negotiate immunity for Iranian suspects and secure the removal of the INTERPOL Red Notices;

Whereas Mr. Nisman was scheduled to present his findings to a commission of the Argentine National Congress on January 19, 2015, but on January 18, 2015, was found dead as the result of a gunshot wound to his head in his apartment in Buenos Aires; and

Whereas, to date, no one has been brought to justice for the 1992 bombing of the Israeli Embassy in Argentina, the 1994 bombing of the AMIA Jewish Community Center in Buenos Aires, or the death of Argentine prosecutor Alberto Nisman: Now, therefore, be it

Resolved, That the Senate—

(1) reiterates its strongest condemnation of the 1992 attack on the Israeli Embassy in Argentina and the 1994 attack on the Argentine Israelite Mutual Association (AMIA) Jewish Community Center in Buenos Aires;

(2) honors the victims of the 1992 bombing of the Israeli Embassy in Argentina and the 1994 AMIA bombing, and expresses its sympathy to the relatives of the victims, who are still waiting for justice;

(3) underscores the concern of the United States regarding the continuing, decades-long delay in resolving the 1992 and 1994 terrorist attacks in Argentina, and urges the President of the United States to offer technical assistance to the Government of Argentina to support the ongoing investigations;

(4) urges the Government of Argentina and the international community to continue efforts to bring the perpetrators of the March 17, 1992, and July 18, 1994, terrorist attacks to justice, including enforcing the INTERPOL Red Notices and extending them when they are up for review in November 2022;

(5) commends the Government of Argentina for designating Hezbollah as a terrorist organization and urges other United States allies and partners in Latin America and the Caribbean to do the same; and

(6) commends the Government of Argentina for adopting the International Holocaust Remembrance Alliance working definition of antisemitism and encourages other partners and allies to do the same.

SENATE RESOLUTION 731—EXPRESSING SUPPORT FOR THE RECOGNITION OF JULY 2022 AS ''MUSLIM-AMERICAN HERITAGE MONTH'' AND CELEBRATING THE HERITAGE AND CULTURE OF MUSLIM AMERICANS IN THE UNITED STATES

Mr. BOOKER (for himself, Mr. MARKEY, Mr. DURBIN, Mrs. FEINSTEIN, Mr. KAINE, Ms. KLOBUCHAR, Mr. PADILLA, Mr. BLUMENTHAL, and Mrs. MURRAY) submitted the following resolution; which was referred to the Committee on the Judiciary:

S. RES. 731

Whereas the Senate is proud to recognize and commemorate ''Muslim-American Heritage Month'', an observance that celebrates the contributions of Muslim Americans;

Whereas, in keeping with its time-honored traditions, the Senate recognizes and pays tribute to those who foster cultural pride and enhance the profile of diverse communities across the United States;

Whereas the immigration of Muslims to the colonies of the United States began with the arrival of indentured workers;

Whereas, during the 17th, 18th, and 19th centuries, a significant number of slaves of Muslim heritage were brought to the United States;

Whereas, in the 19th, 20th, and 21st centuries, successive waves of immigration brought additional Muslims to the United States, who sought to pursue economic and social opportunity, as well as freedom of religion, and enriched the fabric of the society of the United States as business owners, entrepreneurs, health care professionals, humanitarians, scientists, and students;

Whereas Muslim Americans contribute greatly to charitable organizations that help people from all faiths in the United States

and around the world by feeding the hungry, providing recuperation efforts following natural disasters, and providing medical assistance, family services, scholastic supplies, and before and after school programs;

Whereas Muslim Americans have contributed to every part of the society of the United States to make advancements in architecture, arts, business, culture, diplomacy, government, law, medicine, the military, national security, religion, and sports;

Whereas Bangladeshi-American Fazlur Rahman Khan left his mark on cityscapes in the United States by pioneering a new structural system of frame tubes used to construct iconic buildings like the World Trade Center in New York City, the Hubert H. Humphrey Metrodome in Minneapolis, and the Willis ''Sears'' Tower in Chicago;

Whereas many Muslim Americans pursue the American dream and contribute to the economy of the United States as business owners and entrepreneurs, including Pakistani-born billionaire Shahid Khan, owner of the auto parts company Flex-N-Gate and the National Football League team Jacksonville Jaguars;

Whereas Syrian immigrant Ernest Hamwi's invention of the ice cream cone is a practical confection with a near ubiquitous presence in the lives of the people of the United States;

Whereas, in 2006, Keith Ellison of Minnesota was elected to the House of Representatives, becoming the first Muslim American to serve in Congress;

Whereas, in 2008, Ambassador Sada Cumber was appointed by President George W. Bush to serve as the first Special Envoy to the Organization of the Islamic Conference from the United States, representing the United States to 57 Muslim-majority nations;

Whereas actor Mahershala Ali became the first Muslim American to win an Oscar for his supporting role in ''Moonlight'' in 2017;

Whereas, in 2018, Rashida Tlaib of Michigan and Ilhan Omar of Minnesota were elected to the House of Representatives, becoming the first Muslim American women to serve in Congress;

Whereas, in 2021, Zahid Quraishi was confirmed as the first Muslim American to serve as an Article III Federal judge as a District Judge of the United States District Court for the District of New Jersey;

Whereas, in 2021, Rashad Hussain was confirmed as the first Muslim American to serve as the United States Ambassador-at-Large for International Religious Freedom;

Whereas Pakistani-American neurosurgeon Ayub Ommaya's invention of the intraventricular catheter system provides chemotherapy to treat brain tumors;

Whereas Muslim Americans have fought in support of the United States in every major war, from Bampett Muhamed and Yusuf Ben Ali under the command of General George Washington in the American Revolutionary War to Captain Humayun Khan, who made the ultimate sacrifice in Iraq in 2004;

Whereas Imam Warith Deen Mohammed, the first Muslim American to deliver an invocation in the Senate, and El-Hajj Malik El-Shabazz, the civil rights activist and reformer also known as Malcolm X, were prominent religious leaders and scholars;

Whereas Muslim American professional athletes like National Basketball Association Hall of Fame members Kareem Abdul-Jabbar, Hakeem Olajuwon, and Shaquille O'Neal, and 2-time world heavyweight champion Hasim Shariff Rahman, thrilled sports fans around the world during their respective careers;

Whereas Muslim American Olympians, such as boxer Muhammad Ali, track and field athlete Dalilah Muhammad, and fencer Ibtihaj Muhammad, won medals in international competitions;

Whereas, with roots in at least 77 different countries, and identifying racially as White, Black, Arab, and Asian, Muslim Americans are an extremely diverse population;

Whereas the current population of Muslims living in the United States is estimated at more than 3,450,000;

Whereas more than 7,400 Muslims serve on active duty and more than 4,000 Muslims serve as selected reserve personnel in the Armed Forces of the United States;

Whereas the Muslim population has been growing in the United States, and the Muslim-American population is a tapestry of ethnic, racial, linguistic, social, and economic groups;

Whereas nearly 50 percent of Muslim Americans have reported experiencing religious discrimination, with that number rising to 64 percent for Muslim Americans whose appearance identifies them as Muslim, such as women who wear a hijab, or headscarf; and

Whereas the incredible contributions and heritage of Muslim Americans have helped to build a better United States: Now, therefore, be it

Resolved, That the Senate—

(1) designates the month of July 2022 as ''Muslim-American Heritage Month'';

(2) honors the contributions and integral role of Muslim Americans to the economy, culture, and identity of the United States;

(3) recognizes the need for public education, awareness, and policies that are culturally competent when describing, discussing, or addressing the impacts of being Muslim American in all aspects of the society of the United States, including in discourse and policy; and

(4) urges the people of the United States to observe ''Muslim-American Heritage Month'' with appropriate ceremonies, programs, and activities that celebrate the contributions of Muslim Americans to the United States.

AUTHORITY FOR COMMITTEES TO MEET

Mr. CARPER. Mr. President, I have eight requests for committees to meet during today's session of the Senate. They have the approval of the Majority and Minority Leaders.

Pursuant to rule XXVI, paragraph 5(a), of the Standing Rules of the Senate, the following committees are authorized to meet during today's session of the Senate:

COMMITTEE ON ARMED SERVICES

The Committee on Armed Services is authorized to meet during the session of the Senate on Thursday, July 28, 2022, at 9:30 a.m., to conduct a hearing on nominations.

COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS

The Committee on Banking, Housing, and Urban Affairs is authorized to meet during the session of the Senate on Thursday, July 28, 2022, at 10 a.m., to conduct a hearing.

COMMITTEE ON ENERGY AND NATURAL RESOURCES

The Committee on Energy and Natural Resources is authorized to meet during the session of the Senate on Thursday, July 28, 2022, at 10 a.m., to conduct a hearing.

COMMITTEE ON FINANCE

The Committee on Finance is authorized to meet during the session of the Senate on Thursday, July 28, 2022, at 10 a.m., to conduct a hearing on nominations.

COMMITTEE ON FOREIGN RELATIONS

The Committee on Foreign Relations is authorized to meet during the session of the Senate on Thursday, July 28, 2022, at 10 a.m., to conduct a hearing on nominations.

COMMITTEE ON FOREIGN RELATIONS

The Committee on Foreign Relations is authorized to meet during the session of the Senate on Thursday, July 28, 2022, at 2 p.m., to conduct a hearing on nominations.

COMMITTEE ON THE JUDICIARY

The Committee on the Judiciary is authorized to meet during the session of the Senate on Thursday, July 28, 2022, at 9 a.m., to conduct a business meeting.

SPECIAL COMMITTEE ON AGING

The Special Committee on Aging is authorized to meet during the session of the Senate on Thursday, July 28, 2022, at 10 a.m., to conduct a hearing.

MAX CLELAND VA MEDICAL CENTER ACT

Mr. SCHUMER. Madam President, I ask unanimous consent that the Committee on Veterans' Affairs be discharged from further consideration of S. 3369, and the Senate proceed to its immediate consideration.

The PRESIDING OFFICER. Without objection, it is so ordered.

The clerk will report the bill by title.

The senior assistant legislative clerk read as follows:

A bill (S. 3369) to designate the medical center of the Department of Veterans Affairs in metropolitan Atlanta, Georgia, as the ''Joseph Maxwell Cleland Atlanta Department of Veterans Affairs Medical Center''.

There being no objection, the committee was discharged, and the Senate proceeded to consider the bill.

Mr. SCHUMER. I ask unanimous consent that the bill be considered read a third time and passed and that the motion to reconsider be considered made and laid upon the table.

The PRESIDING OFFICER. Without objection, it is so ordered.

The bill (S. 3369) was ordered to be engrossed for a third reading, was read the third time, and passed as follows:

S. 3369

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Max Cleland VA Medical Center Act''.

SEC. 2. FINDINGS.

Congress finds the following:

(1) Joseph Maxwell Cleland was born August 24, 1942, in Atlanta, Georgia, the child of Juanita Kesler Cleland and Joseph Hughie Cleland, a World War II veteran, and grew up in Lithonia, Georgia.

(2) Joseph Maxwell Cleland graduated from Stetson University in Florida in 1964, and received his Master's Degree in history from Emory University in Atlanta, Georgia.

(3) Following his graduation from Stetson University, Joseph Maxwell Cleland received

a Second Lieutenant's Commission in the Army through its Reserve Officers' Training Corps program.

(4) Joseph Maxwell Cleland volunteered for duty in the Vietnam War in 1967, serving with the 1st Cavalry Division.

(5) On April 8, 1968, during combat at the mountain base at Khe Sanh, Joseph Maxwell Cleland was gravely injured by the blast of a grenade, eventually losing both his legs and right arm.

(6) Joseph Maxwell Cleland was awarded the Bronze Star for meritorious service and the Silver Star for gallantry in action.

(7) In 1970, Joseph Maxwell Cleland was elected to the Georgia Senate as the youngest member and the only Vietnam veteran, where he served until 1975.

(8) As a Georgia State Senator, Joseph Maxwell Cleland authored and advanced legislation to ensure access to public facilities in Georgia for elderly and handicapped individuals.

(9) In 1976, Joseph Maxwell Cleland began serving as a staffer on the Committee on Veterans' Affairs of the United States Senate.

(10) In 1977, Joseph Maxwell Cleland was appointed by President Jimmy Carter to lead the Veterans Administration.

(11) He was the youngest Administrator of the Veterans Administration ever and the first Vietnam veteran to head the agency.

(12) He served as a champion for veterans and led the Veterans Administration to recognize, and begin to treat, post-traumatic stress disorder in veterans suffering the invisible wounds of war.

(13) Joseph Maxwell Cleland was elected in 1982 as Secretary of State of Georgia, the youngest individual to hold the office, and served in that position for 14 years.

(14) In 1996, Joseph Maxwell Cleland was elected to the United States Senate representing Georgia.

(15) As a member of the Committee on Armed Services, Joseph Maxwell Cleland advocated for Georgia's military bases, members of the Armed Forces, and veterans, including by championing key personnel issues, playing a critical role in the effort to allow members of the Armed Forces to pass their GI Bill education benefits to their children, and establishing a new veterans cemetery in Canton, Georgia.

(16) In 2002, Joseph Maxwell Cleland was appointed to the 9/11 Commission.

(17) In 2003, Joseph Maxwell Cleland was appointed by President George W. Bush to the Board of Directors for the Export-Import Bank of the United States, where he served until 2007.

(18) In 2009, Joseph Maxwell Cleland was appointed by President Barack Obama as Secretary of the American Battle Monuments Commission overseeing United States military cemeteries and monuments overseas, where he served until 2017.

(19) In 2010, Joseph Maxwell Cleland was appointed Chairman of the Advisory Committee on Arlington National Cemetery, where he served until 2017.

(20) Joseph Maxwell Cleland authored three books: Strong at the Broken Places, Going for the Max: 12 Principles for Living Life to the Fullest, and Heart of a Patriot.

(21) Joseph Maxwell Cleland received numerous honors and awards over the course of his long and distinguished career.

(22) Joseph Maxwell Cleland was a patriot, veteran, and lifelong civil servant who proudly served Georgia, the United States, and all veterans and members of the Armed Forces of the United States.

(23) On November 9, 2021, at the age of 79, Joseph Maxwell Cleland died, leaving behind a legacy of service, sacrifice, and joy.

SEC. 3. JOSEPH MAXWELL CLELAND ATLANTA DEPARTMENT OF VETERANS AFFAIRS MEDICAL CENTER.

(a) DESIGNATION.—The medical center of the Department of Veterans Affairs in metropolitan Atlanta, Georgia, shall after the date of the enactment of this Act be known and designated as the ''Joseph Maxwell Cleland Atlanta Department of Veterans Affairs Medical Center'' or the ''Joseph Maxwell Cleland Atlanta VA Medical Center''.

(b) REFERENCE.—Any reference in a law, regulation, map, document, paper, or other record of the United States to the medical center referred to in subsection (a) shall be deemed to be a reference to the Joseph Maxwell Cleland Atlanta Department of Veterans Affairs Medical Center.

DISCHARGE AND REFERRAL—S. 4490

Mr. SCHUMER. Madam President, I ask unanimous consent that the Health, Education, Labor, and Pensions Committee be discharged from further consideration of S. 4490, a bill to promote digital citizenship and media literacy, and the bill be transferred to the Committee on Commerce, Science, and Transportation.

The PRESIDING OFFICER. Without objection, it is so ordered.

COVID–19 EIDL FRAUD STATUTE OF LIMITATIONS ACT OF 2022

Mr. SCHUMER. Madam President, I ask unanimous consent that the Committee on Small Business and Entrepreneurship be discharged from further consideration of H.R. 7334, and the Senate proceed to its immediate consideration.

The PRESIDING OFFICER. Without objection, it is so ordered.

The clerk will report the bill by title.

The senior assistant legislative clerk read as follows:

A bill (H.R. 7334) to extend the statute of limitations for fraud by borrowers under certain COVID–19 economic injury disaster loan programs of the Small Business Administration, and for other purposes.

There being no objection, the committee was discharged, and the Senate proceeded to consider the bill.

Mr. SCHUMER. I ask unanimous consent that the bill be considered read a third time.

The PRESIDING OFFICER. Without objection, it is so ordered.

The bill was ordered to a third reading and was read the third time.

Mr. SCHUMER. I know of no further debate on the bill.

The PRESIDING OFFICER. If there is no further debate on the bill, the bill having been read the third time, the question is, Shall the bill pass?

The bill (H.R. 7334) was passed.

Mr. SCHUMER. I ask unanimous consent that the motion to reconsider be considered made and laid upon the table with no intervening action or debate.

The PRESIDING OFFICER. Without objection, it is so ordered.

PPP AND BANK FRAUD ENFORCEMENT HARMONIZATION ACT OF 2022

Mr. SCHUMER. Madam President, I ask unanimous consent that the Committee on Small Business and Entrepreneurship be discharged from further consideration of H.R. 7352 and the Senate proceed to its immediate consideration.

The PRESIDING OFFICER. Without objection, it is so ordered.

The clerk will report the bill by title.

The senior assistant legislative clerk read as follows:

A bill (H.R. 7352) to amend the Small Business Act to extend the statute of limitation for fraud by borrowers under the Paycheck Protection Program, and for other purposes.

There being no objection, the committee was discharged, and the Senate proceeded to consider the bill.

Mr. SCHUMER. Madam President, I further ask that the bill be considered read a third time.

The PRESIDING OFFICER. Without objection, it is so ordered.

The bill was ordered to a third reading and was read the third time.

Mr. SCHUMER. Madam President, I know of no further debate on the bill.

The PRESIDING OFFICER. If there is no further debate on the bill, the bill having been read the third time, the question is, Shall the bill pass?

The bill (H.R. 7352) was passed.

Mr. SCHUMER. Madam President, I finally ask that the motion to reconsider be considered made and laid upon the table with no intervening action or debate.

The PRESIDING OFFICER. Without objection, it is so ordered.

SIGNING AUTHORITY

Mr. SCHUMER. Madam President, I ask unanimous consent that Senators BALDWIN, SMITH, and WARNER be authorized to sign duly enrolled bills or joint resolutions through Monday, August 1, 2022.

The PRESIDING OFFICER. Without objection, it is so ordered.

ORDERS FOR MONDAY, AUGUST 1, 2022

Mr. SCHUMER. Madam President, I ask unanimous consent that when the Senate completes its business, it adjourn until 3 p.m. on Monday, August 1; that following the prayer and the pledge, the morning hour be deemed expired, the Journal of proceedings be approved to date, the time for the two leaders be reserved for their use later in day, and morning business be closed; that upon the conclusion of morning business, the Senate proceed to executive session to resume consideration of the Hanes nomination; further, that the cloture motion filed during today's session ripen at 5:30 p.m.

The PRESIDING OFFICER. Without objection, it is so ordered.

ADJOURNMENT UNTIL MONDAY, AUGUST 1, 2022, AT 3 P.M.

Mr. SCHUMER. Madam President, if there is no further business to come before the Senate, I ask that it stand adjourned under the previous order.

There being no objection, the Senate, at 4:28 p.m., adjourned until Monday, August 1, 2022, at 3 p.m.

NOMINATIONS

Executive nominations received by the Senate:

TENNESSEE VALLEY AUTHORITY

JOE H. RITCH, OF ALABAMA, TO BE A MEMBER OF THE BOARD OF DIRECTORS OF THE TENNESSEE VALLEY AUTHORITY FOR A TERM EXPIRING MAY 18, 2025, VICE RICHARD CAPEL HOWORTH, TERM EXPIRED.

DEPARTMENT OF STATE

RICHARD MILLS, JR., OF GEORGIA, A CAREER MEMBER OF THE SENIOR FOREIGN SERVICE, CLASS OF MINISTER–COUNSELOR, TO BE AMBASSADOR EXTRAORDINARY AND PLENIPOTENTIARY OF THE UNITED STATES OF AMERICA TO THE FEDERAL REPUBLIC OF NIGERIA.

HUGO YUE–HO YON, OF CALIFORNIA, A CAREER MEMBER OF THE SENIOR FOREIGN SERVICE, CLASS OF MINISTER–COUNSELOR, TO BE AMBASSADOR EXTRAORDINARY AND PLENIPOTENTIARY OF THE UNITED STATES OF AMERICA TO THE REPUBLIC OF MALDIVES.

DEPARTMENT OF LABOR

JESSICA LOOMAN, OF MINNESOTA, TO BE ADMINISTRATOR OF THE WAGE AND HOUR DIVISION, DEPARTMENT OF LABOR, VICE CHERYL MARIE STANTON.

UNITED STATES PAROLE COMMISSION

ALMO J. CARTER, OF THE DISTRICT OF COLUMBIA, TO BE A COMMISSIONER OF THE UNITED STATES PAROLE COMMISSION FOR A TERM OF SIX YEARS, VICE J. PATRICIA WILSON SMOOT, TERM EXPIRED.

IN THE AIR FORCE

THE FOLLOWING NAMED OFFICER FOR APPOINTMENT IN THE UNITED STATES AIR FORCE TO THE GRADE INDICATED UNDER TITLE 10, U.S.C., SECTION 624:

To be brigadier general

COL. THOMAS P. SHERMAN

IN THE ARMY

THE FOLLOWING NAMED OFFICERS FOR APPOINTMENT IN THE RESERVE OF THE ARMY TO THE GRADE INDICATED UNDER TITLE 10, U.S.C., SECTION 12203:

To be major general

BRIG. GEN. CARY J. COWAN, JR.
BRIG. GEN. JOSEPH D' COSTA
BRIG. GEN. WILLIAM B. DYER III
BRIG. GEN. EDWARD H. MERRIGAN, JR.
BRIG. GEN. JAN C. NORRIS

To be brigadier general

COL. THAD J. COLLARD
COL. ROGER F. DEON, JR.
COL. RACHEL E. HUMPHREY
COL. MARTIN C. JUNG
COL. VANCE KUHNER
COL. JENNIFER A. MARRAST HOST
COL. MATTHEW N. METZEL
COL. CHARLES R. PHARISS II
COL. RAUL L. RODRIGUEZ
COL. ANDREW F. SCARCELLA
COL. TOMIKA M. SEABERRY
COL. KATHERINE A. TROMBLEY

THE FOLLOWING NAMED OFFICER FOR APPOINTMENT IN THE RESERVE OF THE ARMY TO THE GRADE INDICATED UNDER TITLE 10, U.S.C., SECTION 12203:

To be brigadier general

COL. SONYA A. POWELL

CONFIRMATION

Executive nomination confirmed by the Senate July 28, 2022:

DEPARTMENT OF STATE

DAVID PRESSMAN, OF NEW YORK, TO BE AMBASSADOR EXTRAORDINARY AND PLENIPOTENTIARY OF THE UNITED STATES OF AMERICA TO HUNGARY.

EXTENSIONS OF REMARKS

HONORING THE LIFE AND SERVICE OF SHERIFF CARL H. WELLS OF BEDFORD COUNTY, VA

HON. BOB GOOD

OF VIRGINIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. GOOD of Virginia. Madam Speaker, today I honor the life and service of Sheriff Carl H. Wells of Bedford County, VA, who passed away on July 12th, at the age of 86. Sheriff Wells, a lifelong resident of Bedford County, faithfully served as sheriff in his community from 1974 to 1995.

I know my friends from Virginia, Congressman Morgan Griffith and Congressman Ben Cline, who both also represent the region, join me in honoring Mr. Wells for a life well-lived and a legacy of faithful service and commitment to Bedford County. My prayers are with his wife of 64 years, Ora, and the family, friends and community who are grieving his passing.

In addition to his 22-year commitment to serving his county as sheriff, Mr. Wells was also a member of Bedford Baptist church for many years and was actively engaged in his community through participation in multiple volunteer service groups including the Bedford Elks Lodge, the Lions Club, the Shriners, and many others.

On behalf of my constituents and my colleagues, it is a privilege to recognize Sheriff Well's life and service to Virginians. He will be missed but not forgotten.

SOUTH JERSEY ROWING CLUB

HON. DONALD NORCROSS

OF NEW JERSEY

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. NORCROSS. Madam Speaker, I rise today to honor and commend the South Jersey Rowing Club for their participation in the U.S. Rowing's Youth National Championships at Nathan Benderson Park in Sarasota, Florida. The South Jersey Rowing Club is coached by Lindsay Meyer Clarke and her coaching staff. This regatta features more than 2,000 rowers from all over the country racing for medals in up to 43 events.

Lindsay Meyer Clarke is the Head Coach and an accomplished rower herself winning the women's single at the 2006 Youth National and won the first ever medal for an American single sculler at the junior world championships. The following year, Coach Lindsay Clarke won gold at the 'Under 23' worlds in the women's 4x and in 2008 competed in the women's 4x in the Beijing Olympic Games where her team earned 5th place. She was also a member of Stanford University's varsity 8 and won the 1 V and team national titles in 2009 and placed second as team in 2011.

The teammates on the South Jersey Rowing Club come from surrounding towns including Cherry Hill, Collingswood, Haddon Heights, Haddon Township, Haddonfield, Marlton, Mt. Laurel, Pennsauken, Shamong, West Collinswood Heights, and Haverford, Pennsylvania are also included.

The 22 young athletes along with coach Lindsay Meyer Clarke and her coaching staff departed on Tuesday, June 7th for the Youth Nationals and returned on Sunday, June 12th.

Madam Speaker, I ask you to join me in honoring the South Jersey Rowing Club and their 22 youth rowers and coaching staff on qualifying and competing for the United States Rowing's Youth National Championship.

RECOGNIZING THE SACRIFICE OF BUFFALO SOLDIERS

HON. AUGUST PFLUGER

OF TEXAS

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. PFLUGER. Madam Speaker, I rise today to honor National Buffalo Soldiers Day, a day commemorating the formation of the first Army regiments comprised of African American Soldiers.

In 1866, Congress passed the Army Organization Act to allow former slaves to fight for our Nation during the Civil War. More than 180,000 African-American men served their country with pride and distinction despite challenging terrain, limited supplies, and discrimination.

More than 100 years later, to recognize their valiant service, Congress passed a law designating July 28th as National Buffalo Soldiers Day.

Today, we honor the incredible bravery of these 180,000 men who helped secure lasting freedom for our Nation. The Buffalo Soldiers answered the call to fight for our country's freedom while also paving the way for many future service members. Their service was pivotal to securing our country's freedom, and today, we commemorate and honor their sacrifice.

Each of these men earned the recognition they receive on this commemorative day. Even through hardship, their service to the United States was unwavering, offering a glimpse of their American pride and incredible character.

In my hometown of San Angelo, the local NAACP chapter is hosting a three-day celebration to commemorate these brave men and the sacrifices they made.

Under the leadership of President Sherley Spears, San Angelo's NAACP is ensuring soldiers from our local community receive the recognition they deserve for their sacrifices for our country.

Thank you to Mrs. Spears and the San Angelo NAACP for honoring the life and legacy of The Buffalo Soldiers both in the Concho Valley and across our Nation.

The Buffalo Soldiers, along with generations of service men and women who have fought for our country both before and after these brave men, are true American heroes. May we never forget the sacrifices they have made and may God bless all current and former service men and women.

HONORING SERGEANT AARON DELGADO

HON. JIMMY PANETTA

OF CALIFORNIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. PANETTA. Madam Speaker, I rise today to recognize the retirement of Sergeant Aaron Delgado from the Monterey Police Department after 28 years of service to the security of the community of Monterey. Sergeant Delgado's legacy of dedication to his community and the Monterey Police Department will last far beyond his tenure and continue to serve as a prime example of an unwavering commitment to protecting the lives of others.

Born in Inglewood, CA, Sergeant Delgado graduated from Seaside High School in 1990, and began his career in 1993 as a Police Services Technician. After six years, Sergeant Delgado was accepted to the Police Academy and was sworn in as a Police Officer in May of 1999. His elevation in the Department led to a vast new horizon of assignments and responsibilities.

As a Police Officer, Sergeant Delgado served in a myriad role within the department, including Patrol Officer, Detective, Field Training Officer, and Community Action Team Officer. He also led trainings and instruction in the use of firearms, tasers, and chemical agents for new officers. The versatility of his service demonstrates his enthusiasm for the field and a desire to assist and serve.

Furthermore, Sergeant Delgado was instrumental in many police calls and emergency situations over the course of his career with the Monterey Police Department. In 2004, Sergeant Delgado successfully located and arrested the suspect of a shooting in downtown Monterey. In 2009, he located the suspect responsible for making threatening phone calls to women and was fundamental in making sure the suspect was taken into custody.

Mr. Aaron Delgado's promotion to Sergeant in 2011 cemented his legacy as a dedicated public servant to the people of Monterey and his fellow colleagues in the Monterey Police Department. His spirit of service is one that is essential in policing and in his retirement, his career will serve as a model to new generations of police officers in our community.

Madam Speaker, I ask my colleagues in the House of Representatives to join me in recognizing Sergeant Delgado's decades of service to this community. I extend my personal appreciation to Sergeant Delgado and his love and commitment to the people of Monterey.

● This "bullet" symbol identifies statements or insertions which are not spoken by a Member of the Senate on the floor.

Matter set in this typeface indicates words inserted or appended, rather than spoken, by a Member of the House on the floor.

KATE MIHAL

HON. JEFFERSON VAN DREW

OF NEW JERSEY

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. VAN DREW. Madam Speaker, last week, I had the pleasure of meeting Kate Mihal (Me-Hall), a resident of Cape May Court House, South Jersey. Kate is currently a sophomore at Stockton University where she studies environmental science. In her free time, she participates in showings of horses, pigs, chickens, ducks, and rabbits through the 4-H Foundation. When I met Kate last week, she was auctioning off a pig she raised to help provide funding for her school. At the auction, a man named Warren bought Kate's pig for $40.50 a pound, a record price for Cape May County. Through her participation in the 4-H Foundation, Kate has not only taken part in animal showings, but also learned leadership and teamwork skills that have shaped her into who she is today. Kate should be proud of her many accomplishments through this organization, and it was my honor to speak with her last week. God Bless Kate, and God Bless our United States of America.

HONORING THE LIFE AND LEGACY OF CHAIRMAN MICHAEL LONG

HON. ANDREW R. GARBARINO

OF NEW YORK

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. GARBARINO. Madam Speaker, I rise today to speak in honor of the recently departed Chairman Michael R. Long, who served his community, his state, and his Nation with pride and distinction for decades. Born in Brooklyn, New York, Chairman Long was a staunch conservative who dedicated his entire life to furthering the support of conservative values across our great sate.

After serving his country as a Marine, Chairman Long jumped into action once again, working tirelessly to support various presidential, gubernatorial, and mayoral candidates over the years. From 1981 to 1983, Chairman Long served his community as Brooklyn's at-large City Council member. In this position, Chairman Long was unwavering in his beliefs, fervent in his support of conservative values, and quickly rose to the position of Conservative Party Chairman just a few years later.

In addition to his public service and political endeavors, Chairman Long was also an entrepreneur and businessman, having owned a bar and grill, ice cream parlor, and liquor store with his brother, Tom. Chairman Long also served as the president of his local businessman's association, a school board member, and an officer in various other civic groups, including the Committee to Restore Respect, Honor, and Dignity to Policemen.

In all that he did, Chairman Long emerged as a steadfast, common-sense leader who was never afraid to speak his mind. While countless New Yorkers mourn his passing, let us take a moment to reflect upon Chairman Michael Long's many contributions to his community and his party. May his efforts inspire countless generations of future public servants, and may we continue to honor his memory for years to come.

ORANGE COUNTY DELEGATION HONORS DR. MARSHALL ROWEN

HON. J. LUIS CORREA

OF CALIFORNIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. CORREA. Madam Speaker, I rise on behalf of the Orange County delegation, which includes Representatives ALAN LOWENTHAL, KATIE PORTER, MICHELLE STEEL, YOUNG KIM, MIKE LEVIN, and LINDA SANCHEZ, to honor the career and service of Dr. Marshall Rowen.

Dr. Rowen has recently reached the tremendous milestone of serving on the Children's Hospital of Orange County's (CHOC) Board of Directors for 50 years.

For over 60 years, Dr. Rowen has lived in and served Orange County's most vulnerable children. He was the first Pediatric Radiologist in Orange County, and he was Medical Director of Radiology at both St. Joseph and CHOC for many decades.

Dr. Rowen has also taught generations of doctors in Orange County. He was Clinical Professor of Radiology and Pediatrics at U.C. Irvine College of Medicine, served on the Executive Committee of the Faculty and was President of the Clinical Faculty Association. In addition to the Editorial Board of the Western Journal of Medicine, he published more than 35 Scientific articles, and lectured coast to coast on Imaging Center and Radiology Department Management.

He is greatly respected as the previous President of Orange County, Southern California, and California Radiological Societies as well as The Hawaiian Society of Nuclear Medicine and Pacific Coast Pediatric Radiology Association.

His compassion and contribution to our community are extraordinary, and we are proud to recognize Dr. Marshall Rowen's service to Orange County's children.

PERSONAL EXPLANATION

HON. VICKY HARTZLER

OF MISSOURI

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mrs. HARTZLER. Madam Speaker, on Wednesday, July 27, I was unable to vote. Had I been present, I would have voted as follows: NAY on Roll Call Number 394; NAY on Roll Call Number 395; NAY on Roll Call Number 396; YEA on Roll Call Number 397; NAY on Roll Call Number 398; YEA on Roll Call Number 399; YEA on Roll Call Number 400; and NAY on Roll Call Number 401.

IN MEMORY OF STEPHEN A. MCMILLAN

HON. JERRY L. CARL

OF ALABAMA

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. CARL. Madam Speaker, remembering those civil servants who dedicated their careers to the service of their constituents is important, and few Alabama politicians gave more in service than Representative Stephen A. ''Steve'' McMillan.

McMillan served for 42 years in the Alabama House of Representatives, representing Baldwin County. After first winning election in 1982, McMillan represented District 95 for his entire career and went on to serve numerous committees. McMillan leaves behind a legacy of working to pass legislation for the good of Baldwin County and the entire State of Alabama.

McMillan accomplished much, helping create the Fair Ballot Commission, the Baldwin County Judicial Commission, and the State Teacher of the Year program. McMillan also helped planning and zoning for unincorporated areas of Baldwin County, helped found the Alabama School of Math and Science, and helped create the Alabama Coastal Area Erosion Task Force and several laws to protect Alabama Beaches.

McMillan's service was not limited to the Alabama House of Representatives, as he held numerous leadership positions in the community. McMillan was past President of the Bay Minette Rotary Club, member of the North Baldwin Chamber of Commerce, member of the South Baldwin Chamber of Commerce, and a member of the Coastal Alabama Business Chamber.

McMillan will be remembered as a fighter for his constituents who worked for the betterment of his community.

PERSONAL EXPLANATION

HON. TED BUDD

OF NORTH CAROLINA

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. BUDD. Madam Speaker, on Roll Call No. 397, I mistakenly voted Nay when I intended to vote Yea.

50TH ANNIVERSARY OF FIESTA DEL SOL

HON. JESÚS G. "CHUY" GARCÍA

OF ILLINOIS

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. GARCÍA of Illinois. Madam Speaker, I want to honor Fiesta Del Sol, the largest Latino festival in the Midwest, as it celebrates its 50th Anniversary this month.

Fiesta Del Sol hails from my district in Pilsen—the first neighborhood my parents and siblings found a home in when we arrived from Mexico. Pilsen's been a gateway for countless immigrant families, and it proudly continues to reflect and elevate the Mexican community in Chicago. We gather during the Fiesta del Sol to celebrate the richness of our culture through music, food, and community empowerment.

Born in 1973, Fiesta del Sol was in part the result of the rising political power of the Chicano and Mexican American community. That year, the Pilsen Neighborhood Community Council, a non-profit community-based organization, led a successful campaign to build a new public high school in the heart of the neighborhood, the Benito Juárez Community Academy. The organizers hosted a block party to celebrate this victory, and thus the first Fiesta del Sol was born.

Today, this four-day event attracts more than one million people, spans an eightblock space down Cermak Road, and can be seen from miles around in Chicago because of its Ferris wheel and bright lights. Fiesta del Sol also raises funds to provide scholarships for young people needing assistance as they enter colleges and universities.

In its more than 100 booths you will find some of the best Mexican food in town, as well as artists and artisans who come to showcase their talent. Fiesta also is an opportunity for the community to get information about health care, immigration, environmental justice and college readiness. And while it features popular talent, it has also created opportunities for up-and-coming performers.

Fiesta del Sol has become such a significant event for the Latino community, that a promotional poster for the festival, created by artist Alejandro Romero, is now part of the Smithsonian American Art collection.

As the Mexican community in Chicago has grown and evolved, so has Fiesta del Sol. Organizations like the Pilsen Neighborhood Community Council have expanded their reach, continuing to engage and activate people to address the community needs, training organizers, and neighbors to advocate for themselves, their families and for the benefit of the community as a whole.

Fiesta del Sol reminds us of the rich history of the Mexican community and the remarkable cultural and economic contributions we have brought to Chicago and the Midwest. Let's celebrate its 50th anniversary.

RECOGNIZING THE 125TH ANNIVERSARY OF THE HAMLINE CHURCH DINING HALL

HON. BETTY McCOLLUM

OF MINNESOTA

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Ms. MCCOLLUM. Madam Speaker, I rise today to honor the congregation of Hamline Church on the momentous occasion of the 125th anniversary of the Hamline Church Dining Hall at the Minnesota State Fair. The dining hall is the oldest continuous food concession at what we like to call ''The Great Minnesota Get-Together.''

Back in 1897, a small group of women from the Hamline Methodist Episcopal Church Ladies Aid Society decided to try selling cold drinks and sandwiches at the fair to raise money for the church. This humble fundraising effort quickly grew into a dining hall with a full menu that is a staple of the Minnesota State Fair. Unlike those early days, the Hamline Church Dining Hall at 1667 Dan Patch Avenue is now owned by the church and boasts modem conveniences of plumbing and electricity, which are appreciated by patrons and volunteers alike.

Over the' years, there have been a few other changes. In 1935, for a dinner of meat or ham loaf, boiled potatoes, coleslaw, beet pickles; pie, ice cream and a beverage, plus free second helpings, a patron at the Hamline Dining Hall paid only 35 cents. This value and the homegrown hospitality helped the hall survive the Great Depression when many others closed down. World War II food rationing forced more flexibility and adaptation. As the menu has grown and changed over the many years, a perennial favorite is ham loaf topped with honey-mustard sauce. In 2012 they partnered with local small business Izzy's Ice Cream and began selling ice cream and other take-away items, including their very own flavor of Church Elderberry Ice Cream. An adaptation of their traditional Swedish meatballs to Cranberry Wild Rice Meatballs served with lingonberry sauce earned them a spot on the highly acclaimed New Foods list for the fair in 2017.

With more than 300 food vendors at the Minnesota State Fair, the Hamline Church Dining Hall remains popular for its high-quality food and generous hospitality. During each of the past 125 years, the Dining Hall has been largely volunteer-run, 25 of whom have been specially recognized by the fair for 50 years of service. Their hospitality extends well beyond fairgoers—a portion of each year's proceeds goes to provide meals for organizations like The Sheridan Story, Emma Norton Services and Feed My Starving Children.

Madam Speaker, please join me in paying tribute to the congregation and many incredible volunteers of the Hamline Church Dining Hall as they celebrate 125 years of serving up delicious homecooked meals and generous hospitality to hungry Minnesota State Fairgoers.

HONORING MEALS ON WHEELS OF THE MONTEREY PENINSULA

HON. JIMMY PANETTA

OF CALIFORNIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. PANETTA. Madam Speaker, I rise today to celebrate the half-century of service Meals on Wheels of the Monterey Peninsula has provided to the community of Monterey County. This organization has worked for the last fifty years to enhance the health and well-being and provide a sense of community for homebound seniors, disabled adults, and veterans on the central coast of California.

Ms. Sally Judd Griffin, Ms. Vivica Lohr, and Ms. Christine Winge have admirably led Meals on Wheels of the Monterey Peninsula and contributed to the last 50 years of the organization's development, growth, and progress. These community leaders have positively impacted the lives of countless local community members and enhanced the social fabric of Monterey Peninsula communities by paving the way for other agencies to provide services for seniors.

More than 10 million older Americans face hunger each year, and nearly 970,000 of those senior citizens reside in California, all of whom may be at a greater risk for developing a number of debilitating chronic health conditions if they experience persistent malnourishment and isolation. Powered by the commitment and expertise of its staff members and the dedication and magnanimity of its approximately 525 active volunteers, Meals on Wheels of the Monterey Peninsula demonstrated its inestimable value for homebound seniors, disabled adults, and veterans during the ongoing COVID–19 pandemic.

In 2021 and in the midst of the pandemic, the Home Delivered Meals program provided 110,800 meals and its corps of volunteers generously contributed 21,800 hours for the purpose of delivering meals, providing a daily wellness check, and connecting with clients through shared moments of compassion and understanding.

Madam Speaker, I offer my sincere appreciation to the Meals on Wheels of the Monterey Peninsula for its fifty years of vital service to our community members in need.

HONORING GRETCHEN EVANS

HON. CHELLIE PINGREE

OF MAINE

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Ms. PINGREE. Madam Speaker, today, I rise to recognize a courageous veteran, a resilient leader, and a selfless Mainer. Command Sergeant Major Gretchen Evans of Brunswick, Maine is one of the most decorated female veterans in American history serving in the United States Army for 27 years. Since enlisting at age 19, CSM Evans has served in tours of Kosovo, Bosnia, Somalia, Iraq, and Afghanistan, where she was responsible for more than 30,000 ground troops. Ms. Evans' honorable dedication to defending our country earned her the position of Command Sergeant Major, the highest non-commissioned officer rank in the military.

In 2006, Command Sergeant Major Evans survived a barrage of mortar fire in Afghanistan which rendered her deaf and wounded. After her combat injury, she quickly found renewed vitality by learning to lip read, forging relationships with her ''hearing dogs,'' Aura and Rusty, and by proactively reaching out to fellow veterans with similar lived experience.

Today, in Maine, CSM Evans continues to give back as an active fundraiser and ambassador for local nonprofits which provide support services to disabled veterans and which seek to prevent veteran experienced social isolation and depression. Additionally, CSM Evans is a distinguished public speaker who advocates for the importance of leadership, perseverance, and teamwork, as a part of ''Women Veterans Speak,'' a national speaker's bureau.

When she is not inspiring others to serve, CSM Evans pursues her passion for extreme sports, running 40 marathons. CSM Evans also led UNBROKEN, the first all-mixed abilities team to complete in ''The World's Toughest Race,'' a 670-kilometer, week-long endurance race held in Fiji. This achievement recently earned her the Pat Tillman Award for Service at the 2022 ESPYs, which honors individuals with both strong connections to sports and community leadership. This fall, CSM Evans will also be inducted into the U.S. Veteran's Hall of Fame in recognition for her outstanding meritorious service to our country.

I thank Command Sergeant Major Gretchen Evans, for her selfless acts of duty to keep this Nation safe. The people of Maine are incredibly lucky to have her as an advocate, a leader, and a community member. I wish her the very best and I look forward to seeing her continue to thrive.

IN RECOGNITION OF THE 2022 LUZERNE COUNTY SPORTS HALL OF FAME INDUCTEES

HON. MATT CARTWRIGHT

OF PENNSYLVANIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. CARTWRIGHT. Madam Speaker, today I honor the 2022 Luzerne County Sports Hall of Fame inductees. This year's class of sports superstars and coaching legends includes a famed sports field technician, collegiate standouts, high school MVPs, and a two-time Olympian.

Each year, the Luzerne County Sports Hall of Fame honors those who have brought fame and recognition to the state of Pennsylvania through their outstanding achievements and contributions in athletic endeavors. The John Louis Popple Chapter is one of the 31 sanctioned chapters in Pennsylvania and has inducted over 600 members from their five-county region over the past three decades.

This year's inductees include:

Amy Mantush Filanowski, athlete and coach—track and field and cross country.

Dr. Pamela A. Hughes, DO, athlete—volleyball, basketball, and track and field.

Edward S. Kopec, Jr., athlete and coach—cross country and track and field.

Megan Krebs Kriso, athlete—field hockey, soccer, basketball; coach—field hockey.

Shelley Black Leap, athlete—track and field.

Timothy M. McGinley, coach and official—wrestling.

Linda Messner, athlete—track and field, basketball, and golf; coach—volleyball, softball, and swimming.

Rosalyn Polacek, athlete—basketball, soccer, and field hockey; coach—field hockey.

Joshua M. Richmond SFC, athlete and two-time Olympian—shooting.

Brea Lynn Seabrook, athlete—basketball, field hockey, track, soccer, and softball.

Christopher J. Shovlin, athlete and coach—basketball.

Charles Robert Suppon, Jr., athlete—basketball, track and field, and football.

George P. Toma, sports turf manager.

Dr. Gary Thomas Verazin, MD, athlete—basketball, baseball, and track and field.

Each person honored has made local sports history, through their outstanding feats of athletic achievement or by leading their teams to victory as coaches. They have left an indelible mark on regional athletics, and I am pleased to celebrate their contributions to sports.

It is an honor to recognize these 14 talented individuals on their induction into the Luzerne County Sports Hall of Fame. May their stories and impressive careers inspire the next generation of Pennsylvania athletes striving for excellence.

HONORING ANNA MARIE COLE

HON. DEREK KILMER

OF WASHINGTON

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. KILMER. Madam Speaker, I rise today to extend my sincere congratulations and birthday wishes to one of my constituents, Anna Marie Cole, who celebrated her 102th birthday on Friday, July 1, 2022.

Anna Marie Cole served our country as a Navy Nurse during World War II. As the representative of a region that is home to many active-duty families and veterans, I am tremendously grateful for the dedication of our service members. I thank Ms. Cole for her dedication to serving our country.

Madam Speaker, it is an honor to celebrate Anna Marie Cole on her 102th birthday, whose love for her community has never wavered and whose service to her country and community is greatly appreciated and will be long remembered.

HONORING PEMBROKE HIGH SCHOOL CLASS OF 1972 ON THEIR 50TH CLASS REUNION

HON. ROBERT C. "BOBBY" SCOTT

OF VIRGINIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. SCOTT of Virginia. Madam Speaker, I rise today to pay tribute to the Pembroke High School Class of 1972 which will be holding its 50th reunion next week.

Located in the City of Hampton in Virginia's 3rd District, Pembroke High School, originally named the George P. Phenix High School, was opened in 1940 to educate African Americans living in the area. In 1954, the Supreme Court issued its landmark Brown v. Board of Education ruling which struck down segregation in public education. The high school was moved to a new building in 1962 but was not fully integrated until 1967.

In 1968, George P. Phenix High School was renamed Pembroke High School as part of the Hampton School Board's efforts to integrate all public schools. The school would continue to serve the Hampton area, including students from Fort Monroe and Langley Air Force Base, until 1980 when Pembroke High School would be forced to close its doors due to low enrollment and low capacity.

Now, the former Pembroke High School building continues to serve the Hampton community by housing the Hampton City Social Services office as well as the Hampton Family YMCA.

Madam Speaker, as the Pembroke High School Class of 1972 gathers to celebrate a truly momentous anniversary, I want to congratulate the members of this historic class and the work they have done to serve the City of Hampton and the 3rd District of Virginia. I thank Pembroke High School Class of 1972 for their service, and congratulate them on their 50-year reunion.

HONORING HARRY BAUMGARTEN AND DEEPIKA MURALA

HON. YVETTE D. CLARKE

OF NEW YORK

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Ms. CLARKE of New York. Madam Speaker, I rise to recognize and congratulate Mr. Harry William Baumgarten and Dr. Deepika Kennedy Murala on their wedding on June 10, 2022. This special day is worthy of recognition and commendation.

A former voting rights litigator, Mr. Baumgarten spent three years working in my office, where he served as an advisor on foreign policy, judiciary, as well as a plethora of other matters. Serving in roles as Legislative Counsel and Legislative Director, Mr. Baumgarten showed great skill in leading our team to best serve the interests of the people in New York's Ninth Congressional District. His dedication to serving this country is worthy of praise, and our team is exceptionally grateful for his work and contributions.

Dr. Deepika Murala is a pediatric critical care doctor from Southern India. She has been committed to providing health care to underserved communities, both in India and the United States. She has shown great dedication to this cause, and continues to work tirelessly supporting this effort. Her current contributions help fill a critical doctor shortage in Lewes, Delaware.

Dr. Murala and Mr. Baumgarten met on June 14, 2020, while living in Philadelphia. They share a mutual love for traveling and cooking, and serve as an example of the character, capability and professionalism that serves our Nation well. Mr. Baumgarten proposed in front of Independence Hall in December of 2021. Independence Hall serves as the founding site of this country and additionally, the founding site of their marriage.

Madam Speaker, I ask my colleagues to join me in honoring Deepika and Harry. I join with the couple's family and friends in extending my best wishes to them and celebrating this wonderful milestone. I wish them happiness and blessings in the years to come.

4-H FOUNDATION

HON. JEFFERSON VAN DREW

OF NEW JERSEY

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. VAN DREW. Madam Speaker, last week, I had the pleasure of attending the 2022 Cape May County Fair, which is a major fundraising effort for the 4-H Foundation, the largest youth development program in America. The 4-H Foundation in South Jersey supports young people from elementary school through high school by providing programs that are designed to shape leadership and innovation skills. This foundation collects donations and contributions, as well as operates and supervises various fundraising and business enterprises. The 4-H Foundation truly creates wonderful opportunities and community-wide benefits for our nation's youth. Everyone involved in this organization should be proud of their contributions to South Jersey, and it was my honor to attend the Cape May County 4-H Fair. God Bless the 4-H Foundation, and God Bless our America.

HONORING DR. NORMAN ARTHUR JOHANSON

HON. DWIGHT EVANS

OF PENNSYLVANIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. EVANS. Madam Speaker, I rise today to honor Dr. Norman Arthur Johanson, a gifted and esteemed surgeon, with over 44 years of experience in the field of medicine, specializing in orthopedic surgery in Philadelphia, PA.

By all accounts, Dr. Johanson was an even better husband, father, colleague, friend and faith leader.

In 2000, Dr. Johanson assumed the position of Chairman of Orthopedics at Hahnemann University Hospital, where he worked until the hospital closed in 2019. There, he became a beloved surgeon to thousands of patients and mentor to hundreds of residents and medical students. Patients, administrators and understudies described Dr. Johanson as a technically gifted surgeon with a compassionate bedside manner and down-to-earth demeanor, despite being named Philadelphia Magazine ''Best of Philadelphia'' for orthopedic surgery for more than a decade and winning numerous awards, such as the: T. Campbell Thompson Prize in Orthopedic Surgery from Cornell University Medical College; Lewis Wagner Award for Best Paper by a resident and the Distinguished Alumnus Award from Hospital for Special Surgery; and Sir John Charnley Award from the Philadelphia Arthritis Foundation.

According to those that worked closely with him, Dr. Johanson was one of the most technically gifted surgeons they had ever seen—machine-like, in fact. According to former residents Ross Green and Kevin Denehy, in 2014 a salesman from a company selling robotic systems for knee replacements once called on Hahnemann. During the sales visit, the rep asked him to do a manual one to demonstrate how much more precise the robot was than a human. Dr. Johanson ''nailed every cut within a degree,'' recalled Denehy. ''The rep threw up his hands and said he couldn't sell him the robot—because he was better.'' He had been selling the robot for several years and had never seen anything like it.

Today, we mourn the passing of Dr. Norman Arthur Johanson.

PASTOR RONALD K. MOUTON, SR.

HON. AL GREEN

OF TEXAS

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. GREEN of Texas. Madam Speaker, we mourn the loss of a pillar in the Houston community: Reverend Ronald K. Mouton, Sr., Pastor of the East Bethel Missionary Baptist Church, who was tragically murdered on Friday, June 24, 2022. Pastor Ronald K. Mouton, Sr., was born in Lake Charles, Louisiana, on August 2, 1963, to Pastor Roland E. Mouton, Sr., and Mary Mouton. Pastor Mouton's parents impressed upon their son the values of service and devotion, setting him on the path that would ultimately lead him to East Bethel Missionary Baptist Church in Houston, Texas. Pastor Ronald Mouton was a proud alumnus of the Houston public school system, graduating with honors from the Ross Shaw Sterling High School in 1981. Pastor Mouton went on to study at Baylor University before transferring to Stephen F. Austin State University, where he studied Criminal Justice and Business Law. In 1983, Ronald K. Mouton, Sr. married Ms. Suzanne Poullard, his high school sweetheart with whom he attended his Senior Prom. His career in the ministry began at the urging of his father, who encouraged him to preach to those incarcerated at Houston's Prison Farm on Sundays. He did so for more than two years. In so doing he developed his ministry at the Prison Farm. In August 1991, Reverend Mouton, Sr. accepted the call to Pastor East Bethel Missionary Baptist Church. In the subsequent years, Pastor Mouton's sermons and preaching style became well known, and he established himself as one of Houston's most renowned pastors. As his prominence grew, Pastor Mouton became an area coordinator for the WHW Expository Preaching Conference, and he also received an honorary Doctorate Degree from Elbon Solutions of Studies in Apple Valley California. Pastor Mouton's explosive sermons continuously stressed the importance of fostering community with love for each other. The East Bethel Missionary Baptist Church declared the month of August as PASTOR MOUTON month as an expression of appreciation for his stellar service to the community. Pastor Mouton's tragic passing is an immense loss, as we will never again experience his inspiring oratory. He faithfully served East Bethel Missionary Baptist Church for almost 32 years, the longest tenure of any Pastor in the Church's history. Pastor Mouton, Sr. is survived by his wife of 38 years Suzanne Poullard Mouton; his brothers, Pastor Roland Mouton Jr., John Edward Mouton, and Wilton Enard; his sister Jacqueline Mouton Factor; four children, Ronald Keith Mouton Jr., Ryan Keith Mouton, Glenn Edward Poullard, and Tamika Shante Johnson; ten grandchildren; and a loving and heartbroken community. He will be dearly missed.

PERSONAL EXPLANATION

HON. BILL POSEY

OF FLORIDA

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. POSEY. Madam Speaker, my flight was delayed for more than five hours due to technical difficulties and then inclement weather on Tuesday, July 26, 2022, causing me to depart Florida after the vote series began.

Had I been present, I would have voted:
NO on Roll Call No. 386;
NO on Roll Call No. 387;
YES on Roll Call No. 388;
YES on Roll Call No. 389;
NO on Roll Call No. 390;
NO on Roll Call No. 391;
NO on Roll Call No. 392; and
YES on Roll Call No. 393.

HONORING THE LIFE OF JAMES SHIPLEY

HON. BLAINE LUETKEMEYER

OF MISSOURI

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. LUETKEMEYER. Madam Speaker, I rise today to honor the life of a great man who served his country valiantly during World War II. Mr. James Shipley sadly passed away on July 21st at the age of 99. At only 19 years of age, Mr. Shipley made the decision to go to his local recruiting station and serve his country during a time of war. Little did Mr. Shipley know this decision would have him in one of the most respected military organizations from World War II which would pave the way for African Americans service in the armed forces.

Prior to his enlistment Mr. Shipley had worked as a mechanic. With that experience he was selected to serve as a mechanic for military aircraft. He completed his basic training at the Tuskegee Institute, the exact site selected to train the primarily black squadrons that would later be known as the Tuskegee Airmen.

Once his preparatory training had completed, he and the rest of his squadron boarded ships bound for overseas service. In January of 1944, Mr. Shipley was assigned to the 332nd Fighter Group based in Italy. For 21 months, he and his fellow mechanics kept many aircrafts such as the P–39s, P–40s, P–47s, and P–51s in top condition. During this time the Tuskegee Pilots flew nearly twice as many missions as their fellow pilots due to the shortage of pilots in the 332nd Fighter Group. The group escorted over 200 bombing missions and during that time they logged over 15,500 sorties which destroyed over 400 enemy aircraft and ammunition sites.

After the Surrender of Germany, Mr. Shipley would soon return home to Tipton, Missouri where he spent time at various jobs until he became a mechanic for a local electric cooperative until he retired in 1985. In 2007, he, alongside other Tuskegee Airmen received their replicas of the Congressional Gold Medal for their valiant efforts in defeating the Axis powers in World War II.

Madam Speaker, please join me in honoring an American hero, Mr. James Shipley, for the life he lived and the thousands of lives he changed.

CELEBRATING AURORA'S PUERTO RICAN CULTURAL COUNCIL'S 50TH ANNIVERSARY

HON. BILL FOSTER

OF ILLINOIS

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. FOSTER. Madam Speaker, I rise today to celebrate the Aurora Puerto Rican Cultural Council's 50 years of incredible service to the Aurora community, as well as the leadership of Ms. Iris Miller, board president.

Through two years of loss and hardship due to the COVID–19 pandemic, the Council, under Ms. Miller's excellent leadership, managed to maintain their position as a pillar of the Aurora community. The council has continued promoting their Puerto Rican heritage through civic activities and cultural education despite the circumstances. Today, as we celebrate both the return of the Puerto Rican festival and the 50th anniversary of the Council, this organization continues to serve their community through the $20,000 in multicultural educational scholarships they are awarding.

These achievements have happened under the guidance of Iris Miller, Board President of the Aurora Puerto Rican Council. Born and raised in Yabucoa, Puerto Rico, Ms. Miller has shown exemplary leadership and commitment to the Council since she began her term in 2017. Ms. Miller is an avid community servant and has consistently gone above and beyond to provide humanitarian aid to Puerto Rico and Mexico during recent natural disasters. In Aurora, she has acted as a supporter and volunteer for multiple non-profit organizations, as well as the City of Aurora.

I am proud to represent the city of Aurora, and I am grateful to be celebrating this organization and its prolific contributions to the Aurora multicultural community. I ask my colleagues to join me and wish Iris Miller, as well as the Aurora Puerto Rican Cultural Council, all the best for another 50 years of service, education, and leadership.

IN MEMORY OF EDWARD O. WILSON

HON. JERRY L. CARL

OF ALABAMA

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. CARL. Madam Speaker, October 7 has been declared Edward O. Wilson day to honor Alabama native and internationally renowned scientist and educator.

Wilson was born on June 10, 1929, in Birmingham, Alabama. He graduated from Decatur Senior High School before going on to earn bachelor and master's degrees from the University of Alabama.

Wilson served as an entomologist for the Alabama Department of Conservation and taught at Harvard for over 50 years. Additionally, he served on the boards of the Nature Conservancy, The World Wildlife Fund, and Audubon.

His accomplishments include discovering hundreds of new insects and documented the arrival of the fire ant in America as a 14-year-old. Wilson wrote over 30 books explaining the natural world to the public and received more than 150 awards, including the National Medal of Science and two Pulitzer Prizes,

Wilson dedicated his professional career to promoting conservation of natural life in his native Alabama and around the world.

HONORING SALUD PARA LA GENTE

HON. JIMMY PANETTA

OF CALIFORNIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. PANETTA. Madam Speaker, I rise today to recognize Salud Para La Gente and its healthcare staff for their contributions and efforts during the coronavirus pandemic.

Salud Para La Gente (Salud) has provided accessible healthcare to the central coast of California since its founding in 1978. What started as a single clinic providing healthcare to farmworkers has grown to 10 clinics on the Central Coast that serve a community of 28,000 people. During the pandemic, Salud proved their preparedness and capability by continuing to provide healthcare and services to the Central Coast.

The Incident Command team provided access to healthcare and specialized COVID–19 care every day of the week within the respective communities of Watsonville, South Santa Cruz County, and North Monterey County. Its COVID–19 care is extensive and comprehensive, including testing and tracing for almost 23,000 people and the administration of 47,000 COVID–19 vaccines through its 175 vaccine clinics. Salud ensures that it serves its community with its unwavering commitment to providing resources to every community member, regardless of background or financial status. Notably, it also offers the only infusion therapy clinic in Santa Cruz County to vulnerable and immunocompromised individuals infected with COVID–19 to prevent hospitalization.

Salud's dedicated team and numerous partnerships with local organizations have provided comprehensive COVID–19 care throughout the pandemic. With its partnerships, Salud provided proper resources to our Central Coast communities, focusing on important patient and community messaging, and distributing over $5.5 million in financial support.

Salud Para La Gente's prominence and importance in our community cannot be understated. In 2016, Salud became the only Medi-Cal Women's health provider in South County, and in 2017, was awarded Silver by the Central California Alliance for Health for its Healthcare Effectiveness Data and Information Set from Santa Cruz County.

Madam Speaker, it is my pleasure to recognize the great contributions and efforts of the Salud Para La Gente team. I personally extended my gratitude to its dedicated essential workers who have made many sacrifices to protect our communities' health.

40TH ANNIVERSARY OF THE MEXICAN FOLKLORIC DANCE COMPANY OF CHICAGO

HON. JESÚS G. "CHUY" GARCÍA

OF ILLINOIS

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 28, 2022

Mr. GARCÍA of Illinois. Madam Speaker, I want to honor the Mexican Folkloric Dance Company of Chicago (MDFC), the oldest Mexican dance institution in our city, as it celebrates its 40th Anniversary this month.

Folkloric dance refers to a dance style originating in Mexico, reflecting a diverse array of regions and states, blending a variety of techniques, tempos, music, and cultures to produce an art form as vibrant as the people of Mexico.

Though Mexican folkloric dance is an art form that can be traced back to the ceremonial and social dance practices of indigenous communities, it also has multicultural influences, including Spanish, French and Caribbean, as well as from music and dance styles brought by immigrants from Africa, Asia, and other regions.

Folkloric dances are an expression of Mexican, Mexican American, and regional pride. It has served as a measure of counter-colonialism and. storytelling, as dances often depict symbols, events, and other elements unique to the region that they originate from.

These roots of pride and expression are what inspired the creation of the Mexican Folkloric Dance Company of Chicago in 1982, when two prominent community folk dance groups, Nuevo Ideal and Alma de Mexico merged after performing in the very first Ethnic Heritage Festival at the 1981 Illinois State Fair.

Since 1982 the Mexican Folkloric Dance Company of Chicago has remained an integral part of our community. In its 40-year history, the group has provided free. dance education to hundreds of children, youth, and young adults across the city, providing the opportunity to connect with their Mexican heritage through the art of folkloric dance.

In addition to providing young people with the opportunity to connect, the Mexican Folkloric Dance Company of Chicago has captivated audiences across the state, nation, and globe. They have performed for Presidents in both the U.S. and Mexico, and at major events like the World Cup, the Pan American Games, and Latin Grammys, and alongside performers like Juan Gabriel, Pepe Aguilar, and others.

I commend the Mexican Folkloric Dance Company of Chicago for its contributions to our city's cultural life, and for their consistent engagement of young people into the history, culture, and art of Mexico, all of which form the heart of folkloric dance. Their captivating and vibrant performances serve as a testament to the flourishing Mexican Chicago community, and to the incredible presence it has and will continue to have in the city, state, and across the Nation. Let's celebrate its 40th anniversary.

Daily Digest

HIGHLIGHTS

Senate passed H.R. 7776, Water Resources Development Act, as amended.

Senate

Chamber Action

Routine Proceedings, pages S3749–S3791

Measures Introduced: Thirty-eight bills and five resolutions were introduced, as follows: S. 4650–4687, and S. Res. 727–731. **Pages S3782–83**

Measures Passed:

Supporting the Foundation for the National Institutes of Health and the Reagan-Udall Foundation for the Food and Drug Administration Act: Senate passed S. 3743, to require the Administrator of the Environmental Protection Agency to carry out certain activities to improve recycling and composting programs in the United States, after agreeing to the committee amendment in the nature of a substitute. **Pages S3752–55**

Recycling Infrastructure and Accessibility Act: Senate passed S. 3742, to establish a pilot grant program to improve recycling accessibility. **Pages S3755–56**

Water Resources Development Act: By 93 yeas to 1 nay (Vote No. 273), Senate passed H.R. 7776, to provide for improvements to the rivers and harbors of the United States, to provide for the conservation and development of water and related resources, by the order of the Senate of Wednesday, July 20, 2022, 60 Senators having voted in the affirmative, after taking action on the following amendment proposed thereto: **Pages S3756–61**

Adopted:

Carper Amendment No. 5140, in the nature of a substitute. **Page S3756**

Joseph Maxwell Cleland Atlanta Department of Veterans Affairs Medical Center: Committee on Veterans' Affairs was discharged from further consideration of S. 3369, to designate the medical center of the Department of Veterans Affairs in metropolitan Atlanta, Georgia, as the ''Joseph Maxwell Cleland Atlanta Department of Veterans Affairs Medical Center'', and the bill was then passed. **Pages S3789–90**

COVID–19 EIDL Fraud Statute of Limitations Act: Committee on Small Business and Entrepreneurship was discharged from further consideration of H.R. 7334, to extend the statute of limitations for fraud by borrowers under certain COVID–19 economic injury disaster loan programs of the Small Business Administration, and the bill was then passed. **Page S3790**

PPP and Bank Fraud Enforcement Harmonization Act: Committee on Small Business and Entrepreneurship was discharged from further consideration of H.R. 7352, to amend the Small Business Act to extend the statute of limitation for fraud by borrowers under the Paycheck Protection Program, and the bill was then passed. **Page S3790**

Bill Referral—Agreement: A unanimous-consent agreement was reached providing that the Committee on Health, Education, Labor, and Pensions be discharged from further consideration of S. 4490, to promote digital citizenship and media literacy, and the bill be referred to the Committee on Commerce, Science, and Transportation. **Page S3790**

Signing Authority—Agreement: A unanimous-consent agreement was reached providing that Senators Baldwin, Smith, and Warner be authorized to sign duly enrolled bills or joint resolutions through Monday, August 1, 2022. **Page S3790**

Message from the President: Senate received the following message from the President of the United States:

Transmitting, pursuant to law, a report of the continuation of the national emergency that was originally declared in Executive Order 13441 of August 1, 2007, with respect to Lebanon; which was referred to the Committee on Banking, Housing, and Urban Affairs. (PM–37) **Page S3778**

Milstein Nomination—Agreement: A unanimous-consent agreement was reached providing that the July 19, 2022, order with respect to the nomination of Constance J. Milstein, of New York, to be Ambassador to the Republic of Malta, remain in effect. **Page S3761**

Hanes Nomination—Cloture: Senate began consideration of the nomination of Elizabeth Wilson Hanes, of Virginia, to be United States District Judge for the Eastern District of Virginia. **Pages S3766–73**

A motion was entered to close further debate on the nomination, and, in accordance with the provisions of Rule XXII of the Standing Rules of the Senate, and pursuant to the unanimous-consent agreement of Thursday, July 28, 2022, a vote on cloture will occur at 5:30 p.m., on Monday, August 1, 2022. **Page S3766**

Prior to the consideration of this nomination, Senate took the following action:

Senate agreed to the motion to proceed to Legislative Session. **Page S3766**

Senate agreed to the motion to proceed to Executive Session to consider the nomination. **Page S3766**

A unanimous-consent agreement was reached providing that at approximately 3 p.m., on Monday, August 1, 2022, Senate resume consideration of the nomination; and that the motion to invoke cloture filed during the session of Thursday, July 28, 2022, ripen at 5:30 p.m., on Monday, August 1, 2022. **Page S3790**

Nomination Confirmed: Senate confirmed the following nomination:

By 61 yeas to 30 nays (Vote No. EX. 274), David Pressman, of New York, to be Ambassador to Hungary. **Page S3766**

Nominations Received: Senate received the following nominations:

Joe H. Ritch, of Alabama, to be a Member of the Board of Directors of the Tennessee Valley Authority for a term expiring May 18, 2025.

Richard Mills, Jr., of Georgia, to be Ambassador to the Federal Republic of Nigeria.

Hugo Yue-Ho Yon, of California, to be Ambassador to the Republic of Maldives.

Jessica Looman, of Minnesota, to be Administrator of the Wage and Hour Division, Department of Labor.

Almo J. Carter, of the District of Columbia, to be a Commissioner of the United States Parole Commission for a term of six years.

1 Air Force nomination in the rank of general.

18 Army nominations in the rank of general. **Page S3791**

Messages from the House: **Pages S3778–79**

Measures Referred: **Page S3779**

Executive Communications: **Pages S3779–80**

Petitions and Memorials: **Pages S3780–81**

Executive Reports of Committees: **Pages S3781–82**

Notice of a Tie Vote Under S. Res. 27: **Page S3774**

Additional Cosponsors: **Pages S3783–84**

Statements on Introduced Bills/Resolutions: **Pages S3784–89**

Additional Statements: **Pages S3777–78**

Authorities for Committees to Meet: **Page S3789**

Record Votes: Two record votes were taken today. (Total—274) **Pages S3761, S3766**

Adjournment: Senate convened at 10 a.m. and adjourned at 4:28 p.m., until 3 p.m. on Monday, August 1, 2022. (For Senate's program, see the remarks of the Majority Leader in today's Record on page S3791.)

Committee Meetings

(Committees not listed did not meet)

NOMINATIONS

Committee on Armed Services: Committee concluded a hearing to examine the nominations of Milancy Danielle Harris, of Virginia, and Radha Iyengar Plumb, of New York, both to be a Deputy Under Secretary, and Brendan Owens, of Virginia, and Laura Taylor-Kale, of California, both to be an Assistant Secretary, all of the Department of Defense, after the nominees testified and answered questions in their own behalf.

CRYPTO AND SECURITIES SCAMS AND RISKS

Committee on Banking, Housing, and Urban Affairs: Committee concluded a hearing to examine protecting investors and savers, focusing on understanding scams and risks in crypto and securities markets, including S. 4356, to provide for responsible financial innovation and to bring digital assets within the regulatory perimeter, S. 3529, to amend the Investor Protection and Securities Reform Act of 2010 to provide grants to States for enhanced protection of senior investors and senior policyholders, S. 4608, to amend the Internal Revenue Code of 1986 to exclude from gross income de minimis gains from certain sales or exchanges of virtual currency, S. 3990, to amend the Securities Exchange Act of 1934 to prohibit certain securities trading and related communications by those who possess material, nonpublic information, and S. 2147, to enhance civil penalties under the Federal securities laws, after receiving testimony from Melanie Senter Lubin, North American Securities Administrators Association, and Gerri Walsh, Financial Industry Regulatory Authority, both of Washington, D.C.

ENERGY LEGISLATION

Committee on Energy and Natural Resources: Committee concluded a hearing to examine S. 3145, to amend the Natural Gas Act to expedite approval of exports of small volumes of natural gas, S. 3543, to support research, development, and other activities to develop innovative vehicle technologies, S. 3719, to establish the Southwestern Power Administration Fund, S. 3740, to provide for a comprehensive and integrative program to accelerate microelectronics research and development at the Department of Energy, S. 3769, to amend the Energy Conservation and Production Act to improve the weatherization assistance program, S. 3856, to prohibit the importation of uranium from the Russian Federation, S. 4038, to increase the production and use of renewable diesel and sustainable aviation fuel, S. 4061, to amend the Energy Policy and Conservation Act to modify the definition of water heater under energy conservation standards, S. 4066, to amend the Energy Act of 2020 to require the Secretary of Energy to establish a program to accelerate the availability of commercially produced high-assay, low-enriched uranium in the United States and to make high-assay, low-enriched uranium produced from Department of Energy inventories available for use in advanced nuclear reactors, S. 4280, to require the Secretary of Energy to remove carbon dioxide directly from ambient air or seawater, after receiving testimony from Kathryn Huff, Assistant Secretary for Nuclear Energy, and Kelly Speakes-Backman, Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy, both of the Department of Energy; Mike Wech, Southwestern Power Administration, Tulsa, Oklahoma; Matt Leuck, Neste US, Houston, Texas; and Jeff Navin, TerraPower, Washington, D.C.

BUSINESS MEETING

Committee on Finance: Committee ordered favorably reported the nomination of Jay Curtis Shambaugh, of Maryland, to be an Under Secretary of the Treasury.

NOMINATIONS

Committee on Finance: Committee concluded a hearing to examine the nomination of Douglas J. McKalip, of the District of Columbia, to be Chief Agricultural Negotiator, Office of the United States Trade Representative, with the rank of Ambassador, after the nominee testified and answered questions in his own behalf.

NOMINATIONS

Committee on Foreign Relations: Committee concluded a hearing to examine the nominations of William H. Duncan, of Texas, to be Ambassador to the Republic of El Salvador, Hugo F. Rodriguez, Jr., of Pennsylvania, to be Ambassador to the Republic of Nicaragua, Candace A. Bond, of Missouri, to be Ambassador to the Republic of Trinidad and Tobago, who was introduced by Senator Booker, Heide B. Fulton, of West Virginia, to be Ambassador to the Oriental Republic of Uruguay, and Robert J. Faucher, of Arizona, to be Ambassador to the Republic of Suriname, all of the Department of State, after the nominees testified and answered questions in their own behalf.

NOMINATIONS

Committee on Foreign Relations: Committee concluded a hearing to examine the nominations of Shefali Razdan Duggal, of California, to be Ambassador to the Kingdom of the Netherlands, who was introduced by Senator Kaine, Carrin F. Patman, of Texas, to be Ambassador to the Republic of Iceland, who was introduced by Senator Cornyn, Gautam A. Rana, of New Jersey, to be Ambassador to the Slovak Republic, Angela Price Aggeler, of the District of Columbia, to be Ambassador to the Republic of North Macedonia, and Randy W. Berry, of Colorado, to be Ambassador to the Republic of Namibia, all of the Department of State, after the nominees testified and answered questions in their own behalf.

BUSINESS MEETING

Committee on the Judiciary: Committee ordered favorably reported the following business items:

S. 4430, to amend title 35, United States Code, to establish an interagency task force between the United States Patent and Trademark Office and the Food and Drug Administration for purposes of sharing information and providing technical assistance with respect to patents, with an amendment in the nature of a substitute; and

The nominations of Roopali H. Desai, of Arizona, to be United States Circuit Judge for the Ninth Circuit, and E. Martin Estrada, to be United States Attorney for the Central District of California, and Gregory J. Haanstad, to be United States Attorney for the Eastern District of Wisconsin, both of the Department of Justice.

FEDERAL TECHNOLOGY

Special Committee on Aging: Committee concluded a hearing to examine Federal technology for people with disabilities, older Americans, and veterans, after receiving testimony from Eve L. Hill, Brown Goldstein and Levy, Washington, D.C.; Anil Lewis, National Federation of the Blind, Atlanta, Georgia; Jule Ann Lieberman, TechOWL, Devon, Pennsylvania; and Ronald G. Holmquest, Mount Pleasant, South Carolina.

House of Representatives

Chamber Action

Public Bills and Resolutions Introduced: 41 public bills, H.R. 8548–8588; and 8 resolutions, H. Res. 1292–1299 were introduced. **Pages H7403–05**

Additional Cosponsors: **Pages H7406–07**

Report Filed: A report was filed today as follows:

H.R. 7778, to amend the Homeland Security Act of 2002 to prohibit misuse of the Department of Homeland Security seal, and for other purposes, with an amendment (H. Rept. 117–446). **Page H7403**

Legislative Branch Appropriations Act, 2022: The House agreed to the Johnson (TX) motion to concur in the Senate amendment to the House amendment to the Senate amendment to H.R. 4346, making appropriations for Legislative Branch for the fiscal year ending September 30, 2022, by a yea-and-nay vote of 243 yeas to 187 nays with one answering "present", Roll No. 404. **Pages H7273–H7387**

H. Res. 1289, the rule providing for consideration of the Senate amendment to the House amendment to the Senate amendment to the bill (H.R. 4346), was agreed to by a yea-and-nay vote of 216 yeas to 208 nays, Roll No. 403, after the previous question was ordered by a yea-and-nay vote of 218 yeas to 208 nays, Roll No. 402. **Pages H7271–73**

Big Cat Public Safety Act: The House considered H.R. 263, to amend the Lacey Act Amendments of 1981 to clarify provisions enacted by the Captive Wildlife Safety Act, to further the conservation of certain wildlife species. **Pages H7388–95**

Pursuant to the Rule, the amendment in the nature of a substitute recommended by the Committee on Natural Resources now printed in the bill shall be considered as adopted. **Page H7388**

H. Res. 1256, the rule providing for consideration of the bills (H.R. 4040) and (H.R. 263) was agreed to yesterday, July 28th.

Suspension: The House agreed to suspend the rules and pass the following measure:

Wind River Administrative Site Conveyance Act: H.R. 5093, amended, to direct the Secretary of Agriculture to transfer certain National Forest System land in the State of Washington to Skamania County, Washington. **Pages H7399–H7400**

Suspensions—Proceedings Postponed: The House debated the following measures under suspension of the rules. Further proceedings were postponed.

Safeguarding Treatment for the Restoration of Ecosystems from Abandoned Mines Act: H.R. 7283, amended, to amend the Infrastructure Investment and Jobs Act to make certain activities eligible for grants from the Abandoned Mine Reclamation Fund; and **Pages H7395–99**

Including certain computer-related projects in the Federal permitting program under title XLI of the FAST Act: S. 3451, to include certain computer-related projects in the Federal permitting program under title XLI of the FAST Act. **Pages H7400–01**

Presidential Message: Read a message from the President wherein he notified Congress that the national emergency declared in Executive Order 13441 with respect to Lebanon is to continue in effect beyond August 1, 2022—referred to the Committee on Foreign Affairs and ordered to be printed (H. Doc. 117–137). **Pages H7387–88**

Senate Referrals: S. 3742 was held at the desk. S. 3743 was held at the desk. S. 4359 was held at the desk. **Page H7395**

Senate Message: Message received from the Senate today appears on page H7395.

Quorum Calls—Votes: Three yea-and-nay votes developed during the proceedings of today and appear on pages H7271–73 and H7387.

Adjournment: The House met at 10 a.m. and adjourned at 5:01 p.m.

Committee Meetings

AN EXAMINATION OF THE USDA HEMP PRODUCTION PROGRAM

Committee on Agriculture: Subcommittee on Biotechnology, Horticulture, and Research held a hearing entitled "An Examination of the USDA Hemp Production Program". Testimony was heard from Ryan F. Quarles, Commissioner, Kentucky Department of Agriculture; Kate Greenberg, Commissioner, Colorado Department of Agriculture; and public witnesses.

ESSENTIAL BUT UNDERVALUED: EXAMINING WORKPLACE PROTECTIONS FOR DOMESTIC WORKERS

Committee on Education and Labor: Subcommittee on Workforce Protections held a hearing entitled "Essential but Undervalued: Examining Workplace Protections for Domestic Workers". Testimony was heard from public witnesses.

MISCELLANEOUS MEASURES

Committee on Financial Services: Full Committee concluded a markup on H.R. 2965, the "Naomi Schwartz Safe Parking Act of 2022"; H.R. 4277, the "Overdraft Protection Act of 2021"; H.R. 4865, the "Registration for Index-Linked Annuities Act"; H.R. 6889, the "Credit Union Board Modernization Act"; H.R. 7123, the "Studying Barriers to Housing Act"; H.R. 8476, the "Housing Inspections Accountability Act of 2022"; H.R. 8485, the "Expanding Access to Credit through Consumer-Permissioned Data Act"; H.R. 8478, the "Credit Reporting Accuracy After a Legal Name Change Act"; Resolution to Reauthorize the Artificial Intelligence Task Force; and Resolution to Reauthorize the Financial Technology Task Force. H.R. 6889, H.R. 2965, H.R. 7123, H.R. 8476, H.R. 4277, H.R. 8485, H.R. 8478, and H.R. 4865 were ordered reported, as amended. Resolution to Reauthorize the Artificial Intelligence Task Force and Resolution to Reauthorize the Financial Technology Task Force were agreed to.

COUNTERING GRAY ZONE COERCION IN THE INDO-PACIFIC

Committee on Foreign Affairs: Subcommittee on Asia, the Pacific, Central Asia, and Nonproliferation held a hearing entitled "Countering Gray Zone Coercion in the Indo-Pacific". Testimony was heard from public witnesses.

MISCELLANEOUS MEASURES

Committee on Foreign Affairs: Full Committee began a markup on H. Res. 922, condemning the use of hunger as a weapon of war and recognizing the effect of conflict on global food security and famine; H.R. 6498, the "PEACE through Music Diplomacy Act"; H.R. 7240, the "Reinforcing Education Accountability in Development Act"; H.R. 4134, the "Keeping Girls in School Act"; H.R. 8463, the "Millennium Challenge Corporation Eligibility Expansion Act"; H.R. 6455, the "Prosper Africa Act"; H.R. 8520, the "Countering Untrusted Telecommunications Act"; H.R. 8503, the "Securing Global Telecommunications Act"; H.R. 8259, the "Arms Exports Delivery Solutions Act"; H. Res. 558, urging the European Union to designate Hizballah in its entirety as a terrorist organization; H.R. 6265, the "CAPTAGON Act"; H. Res. 744, condemning the Government of Iran's state-sponsored persecution of its Baha'i minority and its continued violation of the Universal Declaration of Human Rights and the International Covenant on Civil and Political Rights; H.R. 1259, condemning the assassination of former Japanese Prime Minister Shinzo Abe and honoring his life and legacy; and H.R. 8453, the "Upholding the Dayton Peace Agreement Through Sanctions Act".

THE INDEPENDENT STATE LEGISLATURE THEORY AND ITS POTENTIAL TO DISRUPT OUR DEMOCRACY

Committee on House Administration: Full Committee held a hearing entitled "The Independent State Legislature Theory and its Potential to Disrupt our Democracy". Testimony was heard from public witnesses.

OVERSIGHT OF THE DEPARTMENT OF JUSTICE NATIONAL SECURITY DIVISION

Committee on the Judiciary: Full Committee held a hearing entitled "Oversight of the Department of Justice National Security Division". Testimony was heard from Matthew G. Olsen, Assistant Attorney General for National Security, Department of Justice.

PREVENTING POLLUTERS FROM GETTING GOVERNMENT CONTRACTS: BUREAU OF LAND MANAGEMENT'S CORPORATE EXCLUSIONS LISTS

Committee on Natural Resources: Subcommittee on Oversight and Investigations held a hearing entitled "Preventing Polluters from Getting Government Contracts: Bureau of Land Management's Corporate Exclusions Lists". Testimony was heard from Mark Greenblatt, Inspector General, Department of the Interior; and Mike Nedd, Deputy Director for Operations, Bureau of Land Management, Department of the Interior.

LEGISLATIVE MEASURE

Committee on Natural Resources: Subcommittee for Indigenous Peoples of the United States held a hearing on H.R. 5449, the "Indian Health Service Advance Appropriations Act". Testimony was heard from Elizabeth Fowler, Acting Director, Indian Health Service, Department of Health and Human Services; and public witnesses.

FITARA 14.0

Committee on Oversight and Reform: Subcommittee on Government Operations held a hearing entitled "FITARA 14.0". Testimony was heard from Vaughn Noga, Chief Information Officer, Environmental Protection Agency; John Sherman, Chief Information Officer, Department of Defense; David Shive, Chief Information Officer, General Services Administration; and Carol C. Harris, Director, Information Technology and Cybersecurity, Government Accountability Office.

TOXIC AIR: HOW LEADED AVIATION FUEL IS POISONING AMERICA'S CHILDREN

Committee on Oversight and Reform: Subcommittee on Environment held a hearing entitled "Toxic Air: How Leaded Aviation Fuel Is Poisoning America's Children". Testimony was heard from Cindy Chavez, Supervisor, Santa Clara County, California; and public witnesses.

WAIVING A REQUIREMENT OF CLAUSE 6(A) OF RULE XIII WITH RESPECT TO CONSIDERATION OF CERTAIN RESOLUTIONS REPORTED FROM THE COMMITTEE ON RULES

Committee on Rules: Full Committee held a hearing on legislation on waiving a requirement of clause 6(a) of rule XIII with respect to consideration of certain resolutions reported from the Committee on Rules, and for other purposes. The Committee granted, by record vote of 7–4, a rule that waives the requirement of clause 6(a) of rule XIII, requiring a two-thirds vote to consider a report from the Committee on Rules on the same day it is presented to the House with respect to any resolution reported through the legislative day of July 29, 2022. The rule also provides that section 7 of House Resolution 1289 shall have no force or effect and that clause 7(a)(1) of rule XV shall not apply through the legislative day of Friday, September 16, 2022.

EXPLORING CYBER SPACE: CYBERSECURITY ISSUES FOR CIVIL AND COMMERCIAL SPACE SYSTEMS

Committee on Science, Space, and Technology: Subcommittee on Space and Aeronautics held a hearing entitled "Exploring Cyber Space: Cybersecurity Issues for Civil and Commercial Space Systems". Testimony was heard from Matthew Scholl, Chief, Computer Security Division, Information Technology Laboratory, National Institute of Standards and Technology, Department of Commerce; and public witnesses.

PROGRESS MADE? ENDING SEXUAL HARASSMENT AT THE DEPARTMENT OF VETERANS AFFAIRS

Committee on Veterans' Affairs: Subcommittee on Oversight and Investigations held a hearing entitled "Progress Made? Ending Sexual Harassment at the Department of Veterans Affairs". Testimony was heard from Harvey Johnson, Deputy Assistant Secretary, Office of Resolution Management, Diversity and Inclusion, Department of Veterans Affairs; and Thomas Costa, Director, Education, Workforce, and Income Security, Government Accountability Office.

WHAT'S THE BIG IDEA? INNOVATIVE APPROACHES TO FIXING CONGRESS

Select Committee on the Modernization of Congress: Full Committee held a hearing entitled "What's the Big Idea? Innovative Approaches to Fixing Congress". Testimony was heard from Representative Larson of Connecticut and public witnesses.

BUILDING A MODERN ECONOMIC FOUNDATION: ECONOMIC SECURITY AND INCOME SUPPORT FOR 21ST CENTURY AMERICA

Select Committee on Economic Disparity and Fairness in Growth: Full Committee held a hearing entitled "Building a Modern Economic Foundation: Economic Security and Income Support for 21st Century America". Testimony was heard from Michele Evermore, Deputy Director for Policy, Office of Unemployment Insurance Modernization, Department of Labor; and public witnesses.

Joint Meetings

No joint committee meetings were held.

COMMITTEE MEETINGS FOR FRIDAY, JULY 29, 2022

(Committee meetings are open unless otherwise indicated)

Senate

No meetings/hearings scheduled.

House

Committee on Armed Services, Subcommittee on Military Personnel, hearing entitled "Service Members' Reproductive Health and Readiness", 8:30 a.m., 2118 Rayburn and Webex.

Committee on Foreign Affairs, Full Committee, continue a markup on H. Res. 922, condemning the use of hunger as a weapon of war and recognizing the effect of conflict on global food security and famine; H.R. 6498, the "PEACE through Music Diplomacy Act"; H.R. 7240, the "Reinforcing Education Accountability in Development Act"; H.R. 4134, the "Keeping Girls in School Act"; H.R. 8463, the "Millennium Challenge Corporation Eligibility Expansion Act"; H.R. 6455, the "Prosper Africa Act"; H.R. 8520, the "Countering Untrusted Telecommunications Act"; H.R. 8503, the "Securing Global Telecommunications Act"; H.R. 8259, the "Arms Exports Delivery Solutions Act"; H. Res. 558, urging the European Union to designate Hizballah in its entirety as a terrorist organization; H.R. 6265, the "CAPTAGON Act"; H. Res. 744, condemning the Government of Iran's state-sponsored persecution of its Baha'i minority and its continued violation of the Universal Declaration of Human Rights and the International Covenant on Civil and Political Rights; H.R. 1259, condemning the assassination of former Japanese Prime Minister Shinzo Abe

and honoring his life and legacy; and H.R. 8453, the "Upholding the Dayton Peace Agreement Through Sanctions Act", 9 a.m., 2127 Rayburn and Webex.

Next Meeting of the SENATE

3 p.m., Monday, August 1

Senate Chamber

Program for Monday: Senate will resume consideration of the nomination of Elizabeth Wilson Hanes, of Virginia, to be United States District Judge for the Eastern District of Virginia, and vote on the motion to invoke cloture thereon at 5:30 p.m.

Next Meeting of the HOUSE OF REPRESENTATIVES

9 a.m., Friday, July 29

House Chamber

Program for Friday: To be announced.

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