

can't move on to fix the problem of DACA; we can't set up a legal immigration system that works best for everyone.

You know, it is not good for Central America. I have been there. I have talked to their Presidents. They ask us to fix their laws. It is not good that their countries are being depleted of the people they need to rebuild their economies. It is not good for them. It is not good for us. It is certainly not good for the migrants who are put in the hands of the most evil people on the planet and left to their tender mercies.

We were so close. President Trump had stopped the flow, largely, of unaccompanied children, of family units, and he was doing the final step, which was complete the wall. Walls work.

Take a look at what happened here after January 6—double layers of fencing, concertina wire tipped. We obviously thought they worked here for us in Congress; they will work at the border as well.

What my amendment would do is simply complete the wall that President Trump started. He wanted to build 800 miles; he built 450. Two hundred and fifty miles of that wall has already been contracted for. It will be paid for whether it is built or not. About 100 miles wasn't contracted.

So, American taxpayer, you need to understand this: You will be on the hook for a couple billion dollars, you know, tens of thousands of tons of steel that has already been produced. All that waste—all that waste, and we won't even get the 250 miles of wall. Isn't that absurd? Isn't that ridiculous? All because securing the border has become a partisan issue, when it was not a partisan issue in 2006.

So my amendment, amendment 1518, is really pretty simple, just two pages. It is very common sense. It just says: Complete the wall that we have already contracted for, that we are going to have to pay for whether we build it or not.

Now, in a rational Senate in reasonable times, this ought to pass 100 to 0. I fear this is going to be decided strictly on party lines, and that is a real shame.

If there is one thing that we ought to be bipartisan about, it is about national security, it is about securing our homeland, and part and parcel of securing our homeland is having a secure border. One element of that, in addition to instituting consequences, like the Migrant Protection Protocol, like something I proposed with the Senator from Arizona, Senator SINEMA, Operation Safe Return, there has to be a consequence to reduce or stop this flow.

But we also need barriers. Technology alone is not going to work. We can't hire enough Border Patrol agents. They are already being dispirited. We are going to have a hard time hiring enough people just to come up to the quota levels we want to hire. We can't do it with personnel. We can't

do technology. We need the fence. We bought and paid for it; let's construct it.

I yield the floor.

The PRESIDING OFFICER. The majority leader.

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. 117.

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 Chiquita Brooks-LaSure, of Virginia, to be Administrator of the Centers for Medicare and Medicaid Services.

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. 117, Chiquita Brooks-LaSure, of Virginia, to be Administrator of the Centers for Medicare and Medicaid Services.

Charles E. Schumer, Patty Murray, Alex Padilla, Sheldon Whitehouse, Jeff Merkley, Jack Reed, Debbie Stabenow, Benjamin L. Cardin, Patrick J. Leahy, Elizabeth Warren, Jacky Rosen, Richard Blumenthal, Tina Smith, John W. Hickenlooper, Michael F. Bennet, Tim Kaine, Brian Schatz.

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. 124.

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 Kristen M. Clarke, of the District of Columbia, to be an Assistant Attorney General.

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. 124, Kristen M. Clarke, of the District of Columbia, to be an Assistant Attorney General.

Charles E. Schumer, Patty Murray, Alex Padilla, Sheldon Whitehouse, Jeff Merkley, Jack Reed, Debbie Stabenow, Benjamin L. Cardin, Patrick J. Leahy, Elizabeth Warren, Jacky Rosen, Richard Blumenthal, Tina Smith, John W. Hickenlooper, Michael F. Bennet, Tim Kaine, Brian Schatz.

Mr. SCHUMER. Mr. President, I ask unanimous consent that the mandatory quorum calls for the cloture motions filed today, May 20, be waived.

The PRESIDING OFFICER. Without objection, it is so ordered.

LEGISLATIVE SESSION

ENDLESS FRONTIER ACT

Mr. SCHUMER. Mr. President, I ask unanimous consent that the Senate resume legislative session.

The PRESIDING OFFICER. Without objection, it is so ordered.

The PRESIDING OFFICER. The Senator from Michigan.

AMENDMENT NO. 1518

Mr. PETERS. Mr. President, I rise to speak in opposition to the Johnson amendment.

The amendment would force the continued payment of government contractors to build an ill-conceived border wall.

Most of these funds were never intended for this purpose. More than \$10 billion was redirected from the Department of Defense. These funds were intended for military missions and functions, such as schools for military families and National Guard equipment.

The Biden administration is conducting a comprehensive review of these contracts, led by the Departments of Defense and Homeland Security. These decisions will be guided by what is best for our national security, not well-connected government contractors profiting off of hard-earned taxpayer dollars.

We need to move forward with smart, bipartisan investments to improve border security that secure both our southern and our northern borders, not look backwards at the former administration's boondoggle.

I urge a “no” vote.

The PRESIDING OFFICER. The Senator from Wisconsin.

Mr. JOHNSON. Mr. President, I ask for a minute to respond.

First of all, let me reiterate—the dollars will be spent regardless. The dollars would be completely wasted and no wall whatsoever. Of course, this reconsideration of their policies—we can already see the disastrous consequences of what they have already done. God help us in terms of what the results will be of future policies as well.

So, again, I ask that my amendment be considered.

VOTE ON AMENDMENT NO. 1518

I ask support for it, and I ask for the yeas and nays.

The PRESIDING OFFICER. The question is on agreeing to the amendment.

Is there a sufficient second?

There appears to be a sufficient second.

The clerk will call the roll.

Mr. DURBIN. I announce that the Senator from Massachusetts (Mr. MARKEY) is necessarily absent.

Mr. THUNE. The following Senators are necessarily absent: the Senator from Louisiana (Mr. CASSIDY), the Senator from South Carolina (Mr. GRAHAM), the Senator from Kansas (Mr. Marshall), the Senator from Kansas (Mr. MORAN), and the Senator from Alaska (Ms. MURKOWSKI).

Further, if present and voting, the Senator from Kansas (Mr. MARSHALL) would have voted “yea.”

The result was announced—yeas 46, nays 48, as follows:

[Rollcall Vote No. 199 Leg.]

YEAS—46

Barrasso	Grassley	Romney
Blackburn	Hagerty	Rounds
Blunt	Hawley	Rubio
Boozman	Hoeven	Sasse
Braun	Hyde-Smith	Scott (FL)
Burr	Inhofe	Scott (SC)
Capito	Johnson	Shelby
Collins	Kennedy	Sullivan
Cornyn	Lankford	Thune
Cotton	Lee	Tillis
Cramer	Lummis	Toomey
Crapo	Manchin	Tuberville
Cruz	McConnell	Wicker
Daines	Paul	Young
Ernst	Portman	
Fischer	Risch	

NAYS—48

Baldwin	Heinrich	Reed
Bennet	Hickenlooper	Rosen
Blumenthal	Hirono	Sanders
Booker	Kaine	Schatz
Brown	Kelly	Schumer
Cantwell	King	Shaheen
Cardin	Klobuchar	Sinema
Carper	Leahy	Smith
Casey	Luján	Stabenow
Coons	Menendez	Tester
Cortez Masto	Merkley	Van Hollen
Duckworth	Murphy	Warner
Durbin	Murray	Warnock
Feinstein	Ossoff	Warren
Gillibrand	Padilla	Whitehouse
Hassan	Peters	Wyden

NOT VOTING—6

Cassidy	Markey	Moran
Graham	Marshall	Murkowski

The PRESIDING OFFICER (Mr. VAN HOLLEN). On this vote, the yeas are 46, the nays are 48.

Under the previous order requiring 60 votes for the adoption of this amendment, the amendment is not agreed to.

The amendment (No. 1518) was rejected.

The PRESIDING OFFICER. The Senator from Washington.

S. 1260

Ms. CANTWELL. Mr. President, I come to the floor today to continue our discussion about the Endless Frontier Act and why America needs to make more investment in the areas of research and development for our Nation. This is critically important as we have gone through this debate with some of our colleagues, to talk about why this is important for the United States. I spent my time yesterday—maybe somebody from the staff can come over and help me with the charts but, thank you—the biggest reason we are doing this is because we believe in American know-how, that is we believe in American ingenuity and we believe in American know-how and we have discussed already how that has helped to build our country over and over and over again, that we are a nation of, if you will, explorers, of pioneers, and by necessity, inventors, and that has continued throughout the history of our country.

So we are so proud to continue to make these investments in all areas of science, certainly in the areas of healthcare, but we are more specifically talking about the engineers of the physical science and engineering. And we are talking about why we should make an increase in both basic research with this underlying bill that continues to drive dollars into curiosity driven early stage research, so that we can continue to grow jobs and help our economy, and it also continues the effort by saying we should make more investments in STEM education, so the workforce that it will take for us to meet the job challenges of the future. So we are excited that we are there with American know-how, but we are also cognizant of this international debate that is going on, the debate about other countries and what they are investing in research and development. And one of the reasons why I like where we are in the United States is because our research and development ecosystem is really an ecosystem of many different agencies doing research and development.

And not only are those research and development investments by these various agencies helping in particular areas—because it is really distributed as this chart shows, the United States works with the private sector, it works with our public universities, and it works with various agencies. Instead of a centralized approach that you might find in other countries, the fact that we have this distributed ecosystem with, you know, the Department of Energy may collaborate with the Department of Agriculture, they may collaborate with the Department of Defense, NSF may collaborate with universities,

universities may collaborate with the private sector—it is an ecosystem, and that ecosystem is what is unique about research and development in the United States. It is not hierarchical, it is not the majority driven by the private sector, or by government, it is an ecosystem, and the fact that it is so distributed. That means, almost like the competition in various places, and the collaboration is helping us grow the innovation economy.

So the one thing that we need to be cognizant of in this debate is that we want to preserve that. We want to preserve the uniqueness of our ecosystem. And that is why we are really talking today about this NSF, the National Science Foundation, principally, and you can see from this big pie we just had this debate, right, we had this debate, well, let's increase the defense R&D—well, we are already doing a lot in defense R&D, of course, our colleagues are talking about the budget overall as it related to defense, but you can see that NSF, the numbers that they are at today at 6.8 are not really at the—you know, you might think this whole debate we are spending, you know, billions of dollars to change the focus. This agency is a powerhouse, and it is a powerhouse mostly connected with universities, and the R&D that is done there has been in the basic research area.

But now, this bill by our colleagues Senators SCHUMER and YOUNG is about taking the basic research, continuing that, making a little bit of investment in that basic research, but then also now trying to accelerate all the research that we now have at our hands, our fingertips, at our minds, and saying, What other user-based research can we take, that basic and applied research, and actually put it into use in commercialization in the United States?

So if you will, capitalizing on a faster tech transfer and a faster deployment of these technologies—why is this so important? Well, it is important because, in the information age, a lot of people can read our published research and development, they can read what we are doing, and they can continue their research and development. Other nations are figuring out that research and development in an information age economy really does matter. They are figuring out that the United States has come a long way as a nation in building job growth, maintaining competitiveness, national security issues, all because we at the Federal Government level have said we believe in research and development with the public taxpayer dollars and it has benefited, whether it is the internet or the bio sciences and healthcare or on national security, the American public gets that that research has made us competitive as a nation.

So we have had two previous attempts to make investments in this issue in America COMPETES, first started in the Bush administration in

2006 when President Bush published a report about America's competitiveness and proposed this concept of that small NSF budget that I was referring to, and articulated that we needed to double that budget within a 5-year or 7-year window of time. They felt that, with the level of change and transformation and innovation, that we wouldn't be keeping pace on a global basis unless we made that investment.

So in 2007 we passed the America COMPETES Act which gave money both to NSF and to DOE, and literally the first 3 years, we thought we were going to double this DOE budget and an investment in DOE within 7 years. So there was a little good news, a lot of euphoria in R&D, a lot of hope for STEM education, science, technology, engineering, and math. And then, in America COMPETES, the same request basically of a 60/40 split between NSF and energy, people thought we would end up—well, we are not on pace, where we want to be, but, oh, we will get there within 11 years. Well, we will put enough money into this innovation effort that we will double our research and innovation budget as it relates to NSF and our energy innovation efforts in 11 years.

Well, this is what really happened. We didn't do either of those things. We are really on a track to have taken those 2007 numbers and double them in 22 years. So when you look back at the history and you say, Well, how did we—what happened? If we are so enthusiastic about this, if we identify this—both a Republican President identified this and then a Democratic administration followed up, why didn't we execute on this? Why didn't we execute on this doubling of this number and making this investment?

Well, we all know what happened, we basically hit a recession. And in a recession of 2009 and 2010, we just didn't live up to this obligation of funding the research and development that was in America COMPETES to the aggressiveness that we had all hoped for. I am not sure everybody even realizes that this effort fell short, that we didn't make quite the level of investment that we wanted, that we were falling behind. I don't think anybody really understood it until now, when people see the incredible level of international competition. All of a sudden, as we see this incredible investment from the international community, people are starting to say, Well wait, what have we done on this effort?

So our next chart shows the fact that the United States has been a leader in global research and development, and as I said, I mentioned on the floor a report that was done by the Pew Charitable Trust—I mean the Pew Research Center, that basically said 7 in 10 Americans believe in public investment in research and development. We have a higher regard for this than other nations, and we just do, I think, because people get it here, I think they get that we have invented a lot of things, they believe in that innovation, they know it creates jobs. And so we have a higher

regard for that, and consequently, we have been the leader in world R&D for a very, very long time. But as this Information age has come along, other nations get that R&D leads to job creation, transformation, and certainly to security. So just since 1991, we have seen China who was ninth in R&D—now, they are No. 2, and I am pretty sure, at current trajectories, will end up being No. 1 sometime very, very soon.

And so it is, you know, not everything about China, although many of my colleagues here are going to discuss this is a China bill, I view it as a bill about the future and making the investments in the future to capture the economic opportunities. There are security issues here, clearly national security issues here. There are clearly issues about a supply chain and whether you can depend on a supply chain and whether, if you have a concentration of an industry in one region of the world, then are you really dependent on that one region of the world for that particular product?

What happened to all of us in the last year and a half—and I am saying now on a global basis—is the world community realized with COVID, well, wait, supply chains really matter, product really matters, where we get product in an emergency really matters, whether it does what it says it does in an emergency really matters. And so all of these issues about supply chains and who is building what and the intricacies of it really got ripped open in the COVID debate, and now, we are really, as the world community starts to look at this too, where do we get our product, who is making it, is it made to the standard that we want, is it secure? And obviously, you know, people have made lots of decisions about supply chain based on just pure cost and effectiveness of a product, but now, people are starting to realize that it is way more complex, and it has led us to this current debate.

So again, why do we do this, why does America want to make an investment in an innovation economy? Well, we don't have to go too far to understand that from our past history. It enables competitiveness, and if you just think about, you know these sectors—I will never forget years ago we had somebody—this was in the '80s, visit Seattle, and they said, Well, what is everybody going to do, make car phones and computers? And in reality, there was a big decade or so of making what then was supposed to be great technology of a car phone, and obviously, we all know where we have now been with computers and operating systems and how much it drives the economy of the future, but at the time when we were seeing a transformation to that, people just thought, Well, what are we all going to do? Is that what we are going to do? Well, telecommunication, semiconductors, advanced materials, all were huge things that enabled this competitiveness of our Nation—in automobiles, in aviation, in the tech sector, in healthcare, in a

whole variety of things. And it drives our economy with this level of innovation.

The internet, just one example, is something we started working on in the '60s, became a reality in the '90s, and today, it is \$2.3 trillion part of our national economy, and 12 percent of U.S. GDP. That is what we got out of previous research. That is what we got out of saying we are going to let scientists do basic research and figure out what they think are the most important advances moving forward. The job growth, millions of jobs, and national security today, we can see just from this past week in a pipeline that was affected by a cyber attack, we cannot afford to take our foot off of national security research and development in the purposes of things like cyber security.

We have to continue to be a leader in this area of technology. It is not as if you are not going to have intimidation of our Nation by somebody maybe sticking the nose of a foreign sub in U.S. waters or flying a spy plane over the United States, it is going to come in the form of intimidation of our banking system, or pipelines, or other senses of security and hacking. And so there is no doubt—no doubt—we need to stay on top of the level of investment in national security. I would say the underlying bill that we will be talking about next week in detail relates to a very important aspect of national security, and that is the area of semiconductors. We need to make an investment in our competitiveness in semiconductors, and we need to make that investment because it is going to be critical to our national security.

So let me talk about a few things that are in the bill, just so people understand some of the priorities that Majority Leader SCHUMER and Senator YOUNG came up with as it relates to this legislation. As I mentioned, it creates a new Tech Directorate in the office of NSF, the National Science Foundation, so that it will be like a DARPA system, that is, that they work with the private sector, they create technology centers, they build partnerships between government and academia, they support rapid technology demonstration, they advance the competitiveness of the United States in important fields like artificial intelligence quantum computing, biotechnology, and they focus on these ideas, similar to how DARPA has done, where the individuals involved are critical to the effort, that is to say, to get the best and brightest minds who are working in these areas to be part of this effort and concentration.

We also looked at and improved in this legislation the fact that universities and academia provide a lot of research and development, but oftentimes, don't even—in the academia world, people are focused on publishing. Publishing their research, that

is kind of how they get known, that is what they get basically almost rewarded for at the university system, and you will be surprised how little time they take to actually take that research, turn it into a patent, and then turn it into a commercialized product.

So one thing we heard in our hearings is that we needed to give more help to universities on tech transfer and patenting of information. Why patenting? Because patenting helps us protect the science that we already have developed. It helps us—say that somebody can't just take that published science report and then go off in another country and develop it because it is now protected under our U.S. law. So we feel this is a very important effort, and we think that it also helps lead a lot of research at universities to then be supported, developed, exposed to the venture capital markets and thus actually helped turn into commercialization.

So efforts at the University of Washington that specifically focused on this, specifically hired somebody to come into the university and kind of, if you will, shake the tree of the level of R&D that was being done and say, What are we doing to actually patent this content, what are we doing to actually transfer it into commercialization, had outstanding results? Yes, it was a transformation of what our universities do, but in the end, they came up with something like, just in a few years, 20 companies that ended up becoming been, you know, supported by venture capitalists and making it on to the markets. So we are very excited that we will now, with this provision, be trying to get more out of the research we do, by patenting it and doing tech transfer.

Our colleagues Senators YOUNG and SCHUMER also believe that university research should continue to get investments, and that is the major aspect of the provision here is to have the Tech Directorate work on these 10 areas of expertise, work with selected universities around the United States on this critical focus of technology. I mentioned some of them: artificial intelligence, quantum computing, biotechnology, and many others.

So the fact that the bill really is depending on our university system, I think, is something that our colleagues should applaud and be excited about. That chart that I showed at the beginning where everybody is working together, this is just research dollars going to the best universities in our Nation to continue to focus on this, but now focus on it in partnership with experts in these sectors and with industry so that we can actually get to a faster adoption rate and a faster implementation into commercial markets. So I think we are leaning in to our university system.

That is a good idea.

That is a good idea. What we are giving the university system, though, is

the tools, the tools to help accelerate that development. And then, as I mentioned, we are also making a huge investment in STEM, more than \$10 billion into STEM education. The chart I showed before talked about how we were going to do all these great things under America COMPETES in STEM. We didn't quite get there. We didn't really do that. I think this is like broadband. Everybody talks about it all the time, we think we have solved it five times, and you still think, Wait, I thought we solved broadband?

STEM is the same thing. You think we have funded STEM. We haven't funded STEM. This represents a huge increase in our STEM education budget, but I will just tell you, this is so that we can get the researchers, the scientists, the fellows, if you will, at the higher education level for STEM. We still need to go and build the pipeline at our K-12 system so that we are putting more people into the pipeline. But hopefully, with the STEM dollars here, we will be, if you will, creating a new workforce for the innovation that we are trying to chase with the investments of these dollars.

And we felt so strongly about this that we looked at the numbers and we were just astonished. There are so few women and minorities in STEM fields—so few. The underlying bill our colleagues, Senator SCHUMER and YOUNG, created a diversity office at, for the first time, over at NSF so they can focus on this issue. We put more resources to it within this STEM category so our colleagues and those at NSF could focus on it. And we expect to really try to take a very aggressive role here. That is what we heard from NSF in their research.

STEM education can't be a passive thing. It can't be just, We are going to put some more dollars out for education. If we want to diversify in the sciences, we have to have a very, very aggressive approach. And so that aggressive approach means changing the faces of those who do the education, changing some of the faces of people who do investments, changing the dynamics of research. A lot of women were hurt in the last COVID pandemic who were researchers because they were juggling both taking care of their families or taking care of parents and doing their research. And so they had extra strains on them that made complexity to when they could get their research done.

So we know we have to think about STEM education from the perspective of what are some of the challenges that face people going into those fields. But no doubt, this underlying legislation before us will have a big investment in that and continue NSF's leadership in trying to grow a more aggressive workforce. So the bill also includes, I should say, a few things about how one of our goals is to diversify innovation to many different parts of the United States. The challenge there is, you know, you are not going to sprinkle

some dust on some magic words on some region of the United States, and all of a sudden, something is going to pop up—and nor do I personally expect it to. I always give the example of Walla Walla, which is a real place, Walla Walla, WA. I had a journalist ask once if that was a real place.

Yes, it is a real place. It is a great wine-making place. But somebody might say, Walla Walla, WA, should be a research center. It has got a university, an outstanding university, Whitman. People might say it should be a tech hub or it should be a research center. Walla Walla found its rightful place when research was done, and a university professor at the University of Washington said, You know what, we can grow wine grapes. That really wasn't that long ago. That was in the 1980s. He said we can grow grapes. We weren't growing grapes. Now, a couple of decades later, we have over a thousand wineries in the State of Washington. So not everybody is going to be a tech hub, but it doesn't mean that you're not going to use science to the best and highest use for a region of your State or the country.

It is about empowering. As Director Panchanathan, the head of NSF says, it is about trying to have innovation everywhere, connected to opportunity everywhere, connected to universities. The point is let's build a better ecosystem that goes all throughout the United States so more and more people can take advantage of technology and innovation. So this is really, really important because we never know where the next person is going to come from, who is going to play a critical role in technology. And the more we build this infrastructure, the better.

So this allows money for regional technology hubs to help concentrate in various parts of the country and expertise, more money for our manufacturing institutes which help manufacturers all across the United States focus on being competitive in their particular area, and it supports \$2.4 billion for manufacturing extension programs, which are those things that really do work with, say, a particular sector like automobiles or aviation or some other type of manufacturing and help make them competitive. And as mentioned, it also, just like in the former COMPETES Act bills, puts some money into DOE. In this case, it puts about \$17 billion into the Department of Energy so that its energy innovation can move forward.

So let me talk for a second about this issue about national security and where we are with semiconductors because I expect this will get a bunch of focus next week as we talk about this legislation. The underlying bill has about \$52 billion of investment for the semiconductor industry, so I am pretty sure people think, Well, wait, this is a lot of money, but it is a very big sector.

It is essential to our defense, it is essential to navigation, it is essential to

satellites, it is essential to healthcare, it is essential to consumer products. And the United States has been a leader in this area. The United States has been a leader in this area for a long time—or I should say, was a leader in this area for a long time, when you think of companies like Intel or others, even some of the companies that are foreign investors who made huge footprints in the United States. But the point is that we are no longer in this position—as this chart shows, only 12 percent of a global supply.

A report recently done on the semiconductor industry by Boston Consulting Group, I just want to read this one part: “The U.S. has been the long-standing global leader in semiconductors with 45% to 50% share of the worldwide market” 5-percent to 50-percent share of the worldwide market—“in the last 30 years. However, significant focus is being placed on ending the U.S. share in semiconductor manufacturing which now only stands at 12% installed capacity.” This is a report that I am pretty sure you could get online. That is the end of that statement.

So we have gone from 45 percent to 50 percent, that is where we started out, and over the last 30 years, now, we are down to 12 percent—12 percent. So I ask my colleagues, if you were 12 percent of anything, how long would you be around to be competitive? How long would you drive the supply chain? How long would you drive job growth? How long would you continue to be competitive in this very, very important sector that is important to all of these things?

And while I am somebody who supports continued growth of our global economy because I think we build and make great things and we want people to sell them to, this presents to us a very unique challenge, the fact that something as critical to the information age as semiconductors, we have gone from 40 percent to 50 percent down to 12 percent the question is what is going to happen next.

Well, the question of what is going to happen next is, if we don't make this investment, very, very likely that that 12 percent is going to, in the next several years, turn into 6 percent. It is going to turn into 6 percent. So staying status quo right now, doing no investment, it is very likely that 12 percent will turn into 6 percent, which means people aren't going to want to locate their boundaries in the United States. People aren't going to want to locate their research in the United States—people aren't going to want to have their companies and the supply chain and the workforce. Literally, this industry simply is clusters, it is clusters. Seattle didn't get to be Seattle overnight. Seattle didn't get to be the hub of the No. 1 STEM city in the United States of America and certainly an epicenter of software and software development overnight.

It took decades—decades. Literally, you know, even in the 1980s and 1990s,

it wasn't that diversified. It has just been in the last 15 years that it has really diversified. But, yes, it took the work of the University of Washington. Yes, it took the work of many companies being there. Then it took the work of then people attracting a workforce who would rather be there than, say, in Silicon Valley. And then it took the efforts of universities to produce a workforce. Then it took attracting venture capital.

Then once they got venture capital, then more companies wanted to come there because then you have the entire ecosystem. You had universities, you had venture capital, you had leading companies, you had a workforce, and you had all of this stuff. Well, that is in software, and software can continue to move forward, but if you didn't have those things, you aren't going to be a cluster for semiconductors. The United States of America—the cluster of semiconductor development is going to be in Asia. It is going to be in Korea. It is going to be in Taiwan, and it is going to be in China.

So we have to ask ourselves if we are only 6 percent of the supply in the future and we can't really control the development and we lose our edge in this and then basically we have to rely on a supply chain for all the chips, you know, in the world, where is the supply chain that we are going to rely on for the national security products and defense technology and satellites and maybe some of these other consumer products that then end up getting used for other purposes? That is what this debate is about.

It is about that we went from 45 percent to 50 percent down to 12 percent. If we do nothing, we are going to 6 percent, and the epicenter of a critical technology is going to move to Asia. So I personally want to see us be successful in keeping a sector in the United States. I am very proud that that same Boston report shows that we have 49 percent of the aerospace manufacturing market in the United States. I am very proud of that because we are an epicenter of that. Forty-nine percent of the manufacturing market for aerospace is in the United States.

That represents, to my region, maybe 150,000 to 200,000 jobs in the Northwest. To the United States, that is 2 million jobs—more than 2 million probably if you think about some of the other related sectors. So being 49 percent of the supply chain in the United States for aerospace really, really, really matters. And I don't want to see that slip. You know, we have had a discussion about the fact that we have the Jones Act.

Now, some of our colleagues might not support the Jones Act, but the Jones Act is we decide, Well, we are not going to be all the shipbuilding in the world. Shipbuilding is going to get built in other places. But, oh, my gosh, we have to have enough shipbuilding in the United States so if we are at war, products and services that we need to

support our military can be transported on U.S. vessels. That is why we have the Jones Act because we decided that that sector was critical enough to support.

And what we are saying here is that this sector is critical enough to support, too. I don't know that we are ever going to be 49 percent like aerospace manufacturing is—probably not, probably because it would take a lot more money than we are talking about here—because the rest of this world is chasing this market, too. They are chasing it fast and furious. We have to ask ourselves, Do we want to end up at 6 percent, or are we want going to try to reverse this trend and make an investment and make it as smart as possible?

I thought we had one more chart, but I guess we don't. So I guess we are back to this. Is this bill's investment worth taking the chance on American know-how? Is it worth the history of our country and saying, We have done a lot in research and development, and we know how to get things done. When I think of some of the people in this story, I think one of the guys on the GI Bill was one of the first contributors to semiconductors. It is a guy who basically went to school on a GI Bill, and if you think about the capital formation and capital markets we have in the United States, it has contributed to allowing that technology to move more rapidly. Our investment in higher education has allowed this to move more rapidly.

So to my colleagues who aren't sure about this legislation or think that it sounds like a lot or thinks that it sounds like, Oh, I don't understand it, it is really quite simple. Do you want to make a bigger investment in our contribution to American know-how with research and development and let them compete to winning the next generation of jobs? I do. I do.

I want to do that because I want to see what comes next. I think it is one of the most exciting things about today and where we live today. We are not in the agrarian age; we are not in the industrial age. We are in the information age where everything can be created in the blink of an eye and now distributed and transform our economy in such significant ways. I want to see what comes next. But we can't do it by passing legislation, authorizing things and then not appropriating the money and then waking up in 10 years and finding that we are at the lowest percentage of research and development to GDP in 60 years. That is where we are, the lowest percentage. So we can't do that. We have to make these investments and if we invest in American know-how, the rest of this will take care of itself.

I yield the floor.

ALASKA TOURISM RECOVERY ACT

The PRESIDING OFFICER. Under the previous order, the Senate, having