

S. HRG. 118–660

**LONG-TERM ECONOMIC BENEFITS AND IMPACTS
FROM FEDERAL INFRASTRUCTURE AND PUBLIC
TRANSPORTATION INVESTMENT**

HEARING
BEFORE THE
COMMITTEE ON
BANKING, HOUSING, AND URBAN AFFAIRS
UNITED STATES SENATE
ONE HUNDRED EIGHTEENTH CONGRESS

SECOND SESSION

ON

EXAMINING THE LONG-TERM ECONOMIC BENEFITS AND IMPACTS
FROM FEDERAL INFRASTRUCTURE AND PUBLIC TRANSPORTATION IN-
VESTMENT

JULY 31, 2024

Printed for the use of the Committee on Banking, Housing, and Urban Affairs



Available at: <https://www.govinfo.gov/>

U.S. GOVERNMENT PUBLISHING OFFICE

60–421 PDF

WASHINGTON : 2026

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LONG-TERM ECONOMIC BENEFITS AND IMPACTS FROM FEDERAL INFRASTRUCTURE AND PUBLIC TRANSPORTATION INVESTMENT

WEDNESDAY, JULY 31, 2024

U.S. SENATE,
COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS,
Washington, DC.

The Committee met at 10 a.m., via Webex and in room 538, Dirksen Senate Office Building, Hon. Sherrod Brown, Chair of the Committee, presiding.

OPENING STATEMENT OF CHAIR SHERROD BROWN

Chair BROWN. The Committee on Banking, Housing, and Urban Affairs is called to order.

Thank you all for joining us to our three witnesses, whom I will introduce in a moment.

For too long, too many people in Ohio, too many people across the Nation, thought—for good reason—that their leaders had given up making our infrastructure, making our manufacturing base the best in the world. Congress’ inaction and the empty promises of Presidents of both parties left Americans to fend for themselves, as they swerved to avoid even bigger potholes; as they bypassed dilapidated bridges; as they dodged chunks of concrete falling from decaying overpasses; as they waited longer and longer for buses that were getting older and older.

Americans saw the consequences of years of congressional inaction and Presidents’ broken promises, and they watched as other countries—our competitors and our adversaries alike—added highspeed rail, built better roads, upgraded their water and sewer, and installed 5G networks.

Our failing infrastructure was only compounded by misguided tax and trade policies that shuttered factories in places like Zanesville, places like my hometown of Mansfield, and places like Kathy and Mike Knisley’s hometown of Lima and Chillicothe, and jobs shipped overseas.

At last week’s hearing, I talked about how our economy and national security interests are interconnected. Ensuring that the United States leads the world in producing semiconductor chips is critical to both our entire economy and our national security.

Because of the work of many of the Senators on this Committee, we passed the bipartisan infrastructure law and the CHIPS and Science Act. But people don’t really care that we passed a bill.

That's sort of inside baseball. They care about results. Today, let's look at the results.

Sixty-thousand infrastructure projects—60,000—already underway across the country because of the bipartisan infrastructure law. These projects are improving 165,000 miles of road. More than 9,400 bridges are getting repaired.

Every State is benefiting. The Mobile River Bridge in Alabama is getting improvements. Rural and tribal communities in Minnesota, Idaho, and other States are getting new buses and vans. We are making bus and rail stations that were built before the Americans with Disabilities Act finally accessible in places like Philadelphia and Cleveland.

Six years ago, Rob Portman and I introduced the Bridge Investment Act to replace or repair the hundreds of bridges in Ohio and thousands around the country that in many cases had not had serious repairs in literally decades.

And now, because of the years of work we did that culminated in the bipartisan infrastructure law, we are finally—finally—building a new Brent Spence companion bridge over the Ohio River. We are replacing the 90-year-old Western Hills Viaduct, crucial to Cincinnati.

Brent Spence, for example, a critical link in the supply chain network, transports 160,000 cars and trucks and \$2 billion in goods every single day. That's 3 percent—think of that, 3 percent—of the country's entire GDP. And it's part of the fabric of the city of Cincinnati, helping to create the vibrancy of one of America's great cities.

But Ohioans know Brent Spence is as dated as it is dangerously crowded. We've heard from Ohioans who are concerned about concrete crumbling on the Western Hills Viaduct. We are fixing that and we're seeing new construction across Ohio—and it's not just huge projects like the Brent Spence and the Intel fabs in Licking County.

We are seeing major upgrades to streets and bridges across my State, including Ohio's rural counties and Appalachia. We announced this month that the Market Street Bridge, which connects Steubenville with West Virginia, that will finally be replaced.

We are also making critical investments to modernize public transit. Americans take 21 million trips—21 million trips—on transit every day. And when the buses and trains and all the infrastructure required to operate them are not up-to-date, service is slower; service is less reliable.

Imagine driving—think about this—imagine driving the same car every day for 40 years. That's what operators on Cleveland's RTA and its 60 cars have been doing for years running. The newest of these 60 cars is 40 years old.

In Cleveland, I met with workers whose job it is to maintain railcars that date back to the Reagan administration. At the railcar garage that I visited on the east side of Cleveland, you actually see these workers over in the corner machining replacement parts for cars that are so old, they can't find replacement parts. They have to machine the replacement parts to keep these trains running. It's the only way to get the parts because they don't make them any-

more. Now, finally, because of the infrastructure law, Cleveland will get 60 new railcars.

We know the U.S. lacks a robust national passenger rail network that other major economic powers have. We are changing that. We're seeing construction of new facilities to improve transit and rail service, like Akron Metro, its public transit system, its new maintenance facility, and a new Amtrak station in Bryan, Ohio, a small town in the northwest corner of the State.

We know how crucial manufacturing and innovation are to our economy. Modern infrastructure today is driven by information technology. The microchips that power our machines and computers are the products of American design and ingenuity, but we have become dependent on other countries for their production. Ninety percent of the chips we invented are now made overseas.

Taiwan is dominant today. Alarming, China is trying to become dominant tomorrow. We wrote the CHIPS and Science Act to change that trajectory. It's allowing us to build a new generation of chip production facilities in Ohio and around the country.

These investments are growing our economy. They're creating jobs and opportunity. In the past 3 years, we've added 670,000 construction jobs—670,000 construction jobs—added to the U.S. economy. Think about that. This is only the start. Hiring is expected to pick up even more in the coming years. More and more projects will get underway.

That doesn't even take into account the jobs throughout the manufacturing supply chain, because we made sure these laws—again, first ever in the last few years—have the strongest Buy America rules ever.

The steel, iron, pipes, and other construction materials are being made in Ohio and across the U.S. by American workers—not, as previously, imported from China. Pipefitters, bricklayers, ironworkers, steelworkers, carpenters, machinists are good, middle-class jobs with high wages and on-the-job training opportunities, where you can develop a craft and build a career.

One of the highlights of the last few years for me was I saw Mike Knisley in Columbus. He's the Secretary and Treasurer of the Ohio State Building and Construction Trades. He represents the men and women who are doing the real work on these projects.

I was at an event last summer with Mike in our State's capital: graduation for a training program that places workers, places workers directly into union apprenticeships in the trades—creating opportunity for so many people who haven't had that opportunity before. Every one of these graduates, mostly men and women in their twenties, had on T-shirts that said in big, black letters on the back, "Direct Path to the Middle Class"—opportunities that most of these young people didn't dream of having.

It's the jobs; we're creating a direct path to the middle class. It's how you build an economy that upholds the dignity of work.

Senator Scott.

OPENING STATEMENT OF SENATOR TIM SCOTT

Senator SCOTT. Thank you, Mr. Chairman.

I thank the witnesses for being with us today, and thank you for the Committee Members who are here with us as well.

One of the challenges I see on this conversation that we're having today is to realize that local problems need local solutions. It's really hard for folks in Washington, D.C., to understand the transit needs of folks in Charleston, South Carolina; Summerville, South Carolina; Columbus, Ohio, or Chicago, Illinois.

The most effective thing that we can do is make sure that the resourcing goes without all the red tape and challenges that come from Washington, D.C. Getting that done seems to be too close to Peter walking on the water. Nearly a miraculous occurrence manifestation has to happen for us to just do the simple thing.

I've spent half my career in politics on the local level, understanding infrastructure projects and what it takes to get those things done. When I first became a Senator, the one thing I did was I decided that, as a kid who grew up in a single-parent household mired in poverty who understood the transit needs of the poorest Americans trying to get to the job, I wanted to make sure that I was sensitive to the current state of Americans trying to get to work. So, I decided I'd go back to the old bus routes and get on those bus routes and spend time talking to people waiting on the bus to come.

I remember talking to a grandmother who worked at Walmart who wanted to spend more time with her grandkids on the weekends, but she would spend 80 to 90 minutes early in the morning waiting on the bus, 7 hours at work, and 80 or 90 minutes to get back home. Three hours to work a 7-hour shift for slightly more than minimum wage to provide the resources necessary to help her grandkids have a better life and a better opportunity to experience and enjoy the American dream.

Having the conversations with folks who were struggling to make ends meet, and thinking about how challenging it is, as a local official, to understand, and then, to decide the right transit routes, so that the folks who need public transportation have access to the right routes at the right times to get to the right job—you just can't do that from Washington.

The one thing Washington has done poorly is to put more onerous burdens on local government and State government, because somehow 535 people in Washington seem to know everything about local needs. And yet, we seem to know nothing about getting the job done.

As an example, my friends on the left are always looking for a "new green steal." They call it the "New Green Deal," but in the end it steals opportunity, innovation, creativity, and resources from the local folks to make good decisions about what they need.

But it's not just transit; it's actually the infrastructure needs that are delayed time and time again. I was thinking about this recently. It takes about 7 years—seven years—for a project to turn the shovel on a new highway program. I was thinking about Highway 17 and this expansion in Mount Pleasant in South Carolina a number of years ago. The frustration I felt, as the Chairman of the County, waiting for all the red tape to be cut, so that we could simply turn shovel on a project that had been approved for years. And I sent some notes to my friends back on County Council just to make sure that I was right about the 7-year process.

It could take up to 2 years for the planning and the programming just to meet Federal thresholds, so that projects can start. And then, after you do that, it can take up to 3 years, whether it's NEPA or other environmental challenges. Throw the "green new steal" on top of all of that and you recognize that this onerous burden to start a road project takes 7 years.

Now, here's the challenging part: when you get the price of a highway project—let's say in those days it was several hundred million dollars; \$700 million, right?—it's not anticipated that 7 years later somehow somehow, miraculously, that same road project is going to cost the same amount of money 7 years later. That's what we call in South Carolina ridiculous hogwash. It just doesn't work that way. But none of that is anticipated in the actual price that people pay waiting and waiting and waiting for the Federal Government just to do their jobs and get out of the way.

But then, after you get through the environmental review and compliance, and it's 3 years later, then you go to the preliminary and final design—up to 2 more years on this process.

And at the same time all this is happening, currently, under the Biden administration—everybody wants to celebrate the IIJA and the IRA, the most ridiculously named bill in maybe American history, the Inflation Reduction Act that actually increases inflation, and the CHIPS and Science Act—what happens? Well, the cost of construction explodes to the highest level ever. It costs more money to do the same thing than it has ever cost three or 4 years later.

And so, when you take a 7-year delay on a road, and you take all the impact studies that it takes—we're not smart enough to do them all at the exact same time—we're going to wait for the first 2 years before we start the Environmental Impact Studies. If this was a business, we would just fire everybody. That's what I would do. That's what I did when I was in business.

If it takes you 7 years to get something started, I want a new—I want somebody else in charge. Americans want someone else in charge because the \$2 billion problem that they have in Maryland to rebuild a road that's going to the bridge, that's going to take 4 years. It's ridiculous, unnecessary. All you need is common sense and people ready to go to work.

And unfortunately, every time well-intentioned politicians make the decision that we know better than the local community, it costs jobs; it costs prices, because they explode. I've got to tell you, 13 years at the local level is a really good education on what not to do.

Let's not burden local government with the "green new steal," that \$7.5 billion in green funding that results in only eight EV charging stations; that takes all those dollars away from being able to have real progress on real roads for real people to get to their jobs.

Mr. Chairman, I'm glad we're having the hearing today, but I've got to tell you, most Americans would say skip the hearing, block grant the money, and let a brother go to work. That's what they would say.

Chair BROWN. Thank you, Senator Scott.

I will introduce the three witnesses. We're pleased to welcome the Acting Under Secretary of Transportation for Policy, Chris-

topher Coes. Mr. Coes was previously confirmed by the Senate as the Assistant Secretary for Transportation Policy. He worked for many years advocating for safe and reliable transportation that builds better communities. We look forward, Mr. Secretary, to hearing your input.

Micheal Knisley served as the Executive Secretary and Treasurer of the State Building Instruction Trades Council since 2018. Prior to his current leadership role, Mr. Knisley served as President of the Lima, Ohio, Building and Construction Trades Council. He oversees the day-to-day operations of the State Council and supports its 14 individual local councils that comprise 137 trade unions and some 100,000 members.

I would like to welcome Mr. Knisley's family members visiting from Ohio today: his wife Kathy from Lima, his sister-in-law and brother-in-law, Jennifer and Brad, from Columbus, and nephews Griffin and Grayson. It's great to have all of you here. It's the first time you've come to a hearing, I think. So, welcome.

And, Mike, I look forward to hearing about the new jobs you're seeing and learning how we're bringing more workers.

And I would add that, interestingly, I'm almost certain I will see Mike at the groundbreaking for the Brent Spence Bridge. It was announced by Senator Portman and me, the President of the United States, Senator McConnell, the Governors of the two States. It was announced in early January, right around the time Senator Portman left office, of 2023. The groundbreaking to build this bridge will be in less than 2 years. So, thank you for that, and I assume I will see you at that.

Dr. Richard Geddes is the Founding Director of the Cornell Program in Infrastructure Policy and a nonresident senior fellow with AEI. He previously served as Commissioner of the National Surface Transportation Policy and Revenue Study Commission. Thank you for being here.

Mr. Secretary, would you begin?

STATEMENT OF CHRISTOPHER A. COES, ACTING UNDER SECRETARY OF TRANSPORTATION FOR POLICY, DEPARTMENT OF TRANSPORTATION

Mr. COES. Good morning.

Chairman Brown, Ranking Member Scott, and Members of the Committee, thank you for this opportunity to testify today and for your leadership and partnership, as we work to deliver projects to build a stronger, safer transportation system that connects American people to jobs, to housing, and to one another.

DOT has been working tirelessly executing the vision of the Infrastructure Investment and Jobs Act. Because of this generational investment, the Biden-Harris administration has announced \$461 billion of awards, funding over 60,000 specific projects in all 50 States, the District of Columbia, territories, and for tribes.

As I've travelled across the country, I can tell you these headlines don't come close to telling the full story about IIJA's significance. Nationally, 47 percent of the U.S. population spends more than 15 percent of their annual income on transportation. IIJA isn't just an investment in infrastructure; it's an investment in our economy, in our workforce, and in our Nation's household budgets.

IIJA is allowing us right now to invest over \$91 billion into restoring and upgrading our Nation's transit service—creating thousands of new jobs and expanding affordable access to even more. Bringing transportation, jobs, and housing closer together improves access, while also supporting local and regional economic development.

In April, FTA announced the award of nearly \$18 million to 20 projects in 16 States in transit-oriented development funds to support local economic development efforts to improve access and increase affordable housing production near transit.

It's also critical that transit is available to everyone, regardless of their ability. That's why the All Stations Accessibility Program is so important, allowing us to upgrade and modernize legacy transit stations built before the Americans with Disabilities Act of 1990.

Last month, we saw the groundbreaking for the first project to reach construction under this program, an upgrade to six transit stations in Philadelphia that will make them fully accessible and provide greater access to everyday destinations.

We're also investing in projects to reconnect communities, including through the Reconnect Communities and Neighborhoods Program. For example, in Columbus, Ohio, we're funding the development of a bus rapid transit corridor along the West Broad Street, which currently divides disadvantaged communities and is one of the most dangerous roadways in Ohio. Once completed, we expect that the availability of this BRT system will result in more affordable transit station options, fewer pedestrian deaths, and greater private investment along that corridor.

This project is just one example of how transit investments are helping transform disadvantaged communities into thriving ones. More broadly, we are exceeding our Justice40-covered programs goal with 55 percent of our benefits going to disadvantaged communities, particularly rural and tribal.

For example, at the border of Montana and Idaho, we're funding the rehabilitation of a critical segment of Interstate 90 to enable it to better withstand increased harsh weather events and make it safer and more reliable for travelers and vulnerable populations nearby.

We're also replacing rural bridges in South Carolina that are disrupting vital farm-to-market and commercial freight routes with existing load restrictions due to their age and condition.

In March, we experienced a painful reminder of the criticality of our Nation's bridges to our daily lives and to our economy when the Francis Scott Key Bridge in Baltimore collapsed after being struck by a container ship. We all worked rapidly with multiple partners to reopen the Federal channel and the Port of Baltimore in less than 100 days, and we continue to work with them to rebuild the Key Bridge.

But even before that incident, we've been working with communities across the country to rehab and replace aging critical bridges. And that is why, earlier this month, DOT awarded over \$5 billion to 13 large bridges, including \$250 million for the I-95 bridge over Lake Marion in South Carolina; \$550 million for the I-

10 Mobile River Project in Alabama; \$251 million to repair a cluster of bridges on I-95 in Rhode Island.

These projects will join so many projects already underway. For instance, we expect construction to begin soon on the Brent Spence Bridge, which carries over \$400 billion in freight each year over the Ohio River.

We are excited to see some of the earliest IIJA investments to break ground and begin construction and start to deliver benefits. We are doing everything on our part to accelerate projects, including standing up a new Project Delivery Center of Excellence, streamlining our NOFOs, and providing technical assistance to rural and tribal communities.

On behalf of Secretary Buttigieg and the entire Department, we appreciate the partnership and the shared commitment on delivering a world-class transportation system for the American people.

Thank you and I look forward to your questions.

Chair BROWN. Thank you.

Mr. Knisley, welcome.

**STATEMENT OF MICHAEL KNISLEY, EXECUTIVE SECRETARY
AND TREASURER, OHIO STATE BUILDING AND CONSTRUCTION TRADES COUNCIL**

Mr. KNISLEY. Good morning, Chairman Brown, Ranking Member Scott, and Members of the Committee.

Thank you for your leadership on building a resilient economy for American workers and the communities through Federal investment.

My name is Mike Knisley. I'm here to testify on the impact that Federal investments are having on the 100,000 men and women that I represent as Executive Secretary/Treasurer of the Ohio State Building and Construction Trades Council.

In our nearly 60 years as a building trades council, there's never been a brighter future for tradespeople who build Ohio. Ohio owes this bright future to smart public-private investment, led by strong bipartisan leadership in Congress.

And we're building big in Ohio. Over the next decade, we're looking at over \$200 billion in construction projects that will create generational careers that provide prevailing wages with health care and retirement benefits, as well as tuition-free, paid apprenticeship training, for both present and future tradespeople.

The bipartisan Infrastructure Investment and Jobs Act means that thousands of tradespeople in southern Ohio and northern Kentucky will build the Brent Spence Bridge. This bridge, which, besides being long overdue, is a vital transportation corridor for our region and will be built by a diverse generation of construction workers, including tradeswomen like Saria Gwin-Maye of Ironworkers Local 44.

The CHIPS and Science Act means that nearly 10,000 construction tradespeople will build Intel's new semiconductor fabs in Columbus, Ohio. This project is creating family sustaining construction jobs across the Central Ohio region, but also in Ohio's Appalachian communities, where the residents can see opportunity on the horizon again.

There's excitement in the air in places like IBW 1105's Electrical Training Center, where a whole new generation of tradespeople will begin their apprenticeships on the Intel project, including having the potential to work their entire career at that facility upgrading and maintaining the fabs. Imagine that—lifelong family sustaining construction careers within commuting distance of Ohio's counties. This type of investment has the potential to deliver lasting recovery in Ohio's struggling towns.

Statewide, the Ohio building trades have scaled-up their workforce development to meet the demand driven by these investments. Across Ohio, our 80 privately funded apprenticeship centers are taking in their largest classes ever.

The buildings trade model is the gold standard in workforce development, where they train over 80 percent of all construction apprentices in Ohio—and I must put on this—with zero tax dollars.

The continued high-road investment in construction projects generate the steady demand of apprentices needed for the next generation of local tradespeople.

Underinvestment in our Nation's infrastructure over the past 30 years has hurt economic growth in the communities where our members live and work. But now, with the new infrastructure investment in places like my hometown of Lima, Ohio, good-paying construction jobs are on the rise—creating an environment where young people do not have to leave the Buckeye State to support their families.

The Ohio Building Trades believes that the rising tide of economic opportunity must be within reach for all Ohioans, including women, people of color, and veterans. Thanks to our partners in industry and at every level of Government whose commitment to responsible contracting and sustainable jobs means that Ohio's rising economic tide reaches working families in Ohio. Our commitment to our partners is this: we will get the job done.

We ask that you match our commitment by ensuring that federally funded construction jobs go to American tradespeople. These jobs must provide benefits to working families in our communities. And despite the heavy workforce demand in certain regions across our State, there are still depressed areas that have local tradespeople being displaced by companies that hire workers without the proper documentation to work well below the required prevailing wage and without any benefits.

Properly executed, each new project built through Federal investment strengthens Ohio's construction workforce by growing our communities through local wages and benefits for working families. And you can take the building trades' commitment to equal economic opportunity to the bank. Our journey people and apprentices are protected by collective bargaining agreements. CBAs are the great equalizing in wages, health care, and retirement equity on every jobsite, and they guarantee that each worker, regardless of race or gender, earns dollar-for-dollar the same pay and benefits as everyone else.

When Ohio's building trades people are bringing home a steady paycheck from major projects, their entire communities feel the economic benefits of those earnings. And thanks to Federal investment, these are the working Ohioans who someday will drive past

factories like Intel or across the Brent Spence Bridge and say to their children and grandchildren, “I built that.”

Thank you for allowing me to voice the economic stability and hope for the future of thousands of Ohio building tradespeople and a new generation of Ohio construction apprentices that we have, thanks to these Federal investments in American workers.

And I’m going to end with my final comment. Good infrastructure and investment policies that come out of Washington create great outcomes in your local communities.

Thank you, Chairman Brown and Ranking Member Scott.

Chair BROWN. Thank you, Mr. Knisley.

Almost every day I drive over Interstate 480 through Cleveland. And, you know, bridges and buildings are often named after politicians. Well, this bridge is called the Union Workers Bridge, as it should be.

And as you know, building trades workers often—a few lose their lives on these projects, these dangerous projects that matter so much for our country.

Dr. Geddes, thank you. Welcome.

**STATEMENT OF R. RICHARD GEDDES, FOUNDING DIRECTOR,
CORNELL PROGRAM IN INFRASTRUCTURE POLICY**

Mr. GEDDES. Thank you, Mr. Chairman. Thank you and Ranking Member Scott, and Members of the Committee. Thank you for the opportunity to testify.

In addition to your kind introduction, I’m Rick Geddes, Academic Director and Founder of the Cornell Program in Infrastructure Policy, also a professor in the relatively new Jeb Brooks School of Public Policy at Cornell, as well as a professor economics at Cornell.

So, I’ll proceed with that. Thank you.

Approximately 2 years ago, to take a step back, Congress passed the bipartisan infrastructure law, the CHIPS and Science Act, and the Inflation Reduction Act within the span of about 9 months. Together, those Acts constitute the largest Federal action on infrastructure since the National Interstate and Defense Highways Act of 1956, which created our interstate highway system.

Those legislative acts are important in strengthening our country’s infrastructure and addressing endemic problems, such as a large backlog of deferred maintenance, as well as creating a lot of new important projects.

The actual impact of the acts on U.S. infrastructure to date, however, has been a bit less than expected for several reasons.

First, inflation has been persistent since the acts were passed, particularly in the materials and labor needed to deliver much infrastructure, as I detail in my written testimony.

Second, to Senator Scott’s point, environmental permitting under the National Environmental Policy Act of 1970, or NEPA, remains cumbersome. As I and coauthors report in a 2023 article, a typical Environmental Impact Statement, or EIS, under NEPA now takes about 4½ years to complete and is over 600 pages long. Some EISs take more than a decade to complete.

In an economic sector where time really is money, long schedules can significantly increase project costs. Permitting reforms in place

in several other countries can be instructive as excellent models for the U.S. to implement, as I detail in my testimony.

Third, provisions of the Build America, Buy America Act, or BABA, are inhibiting project delivery. We understand the motivation behind it, but they contribute to confusion amongst contractors and project developers. With the tighter BABA requirements, even minor products must be produced by U.S. companies to qualify for available Federal incentives. Those items, however, are often not available or are more expensive than the imported versions—adding to costs and time delays. Ensuring crystal-clear guidance regarding waivers under BABA is a key step, or could be a key step, in facilitating more efficient project delivery.

There are, however, solid reasons for optimism in the infrastructure outlook. I believe we now have an opportunity for the private sector to take a larger role in financing U.S. infrastructure beyond that currently provide by the Federal Government.

The BIL Act took steps to encourage greater private participation by increasing the national limit on Private Activity Bonds, or PABs, for qualified projects from a \$15 billion cap to a \$30 billion cap. So, the spirit of the law was there.

But more can be done. These arrangements that encourage public and private cooperation can bring American infrastructure delivery up to global standards through better cooperation. The core of such cooperation is a long-term contract between the public and private sectors, broadly known as a public-private partnership, or PPP. Those contracts are helpful, particularly for addressing deferred maintenance, in that they, typically, bundle or wrap the design and construction of a major infrastructure facility together with the operation and maintenance, or O&M, over the long term, such as 25 or 30 years. And that can include provisions to ensure proper maintenance.

A properly structured PPP contract puts more of the risk of the time and cost overruns on the private partner rather than on the taxpayer. Such contracts can also include future-proofing. Future-proofing refers to the risk of not adopting available innovative technologies well into the future. A future-proofed contract places that risk on the private partner; thus, ensuring that private capital, incentives, and expertise are deployed to make U.S. infrastructure as resilient as possible for decades to come.

I believe Congress can take further steps to facilitate greater PPP use in the United States, which is behind every other developed country I know, by the way, in PPPs.

One is to encourage States and regions to utilize PPP units, which are quasi-Government entities that assist the public sector in undertaking PPPs. Such units are well-established around the world, including Australia, Canada, China, Egypt, India, Israel, Japan, and the United Kingdom, among many other countries.

I believe that, with several key policy changes that I've described here, infrastructure projects can deliver long-term benefits and returns for all parties.

Thank you very much for the opportunity to testify and I look forward to your questions.

Chair BROWN. Thank you, Dr. Geddes.

Mr. Knisley, I'll start with you.

For decades, we've corporations follow the business model that pursued growth by closing factories, shipping jobs south, and then, overseas—always in search of cheaper wages. It's devastated the hometowns of each of us, of Lima and Mansfield.

We've passed a bipartisan infrastructure law, in part, to create the types of jobs that corporations can't outsource. The number of construction workers in Ohio is at a 24-year high and growing every week.

You note that, when people bring home a steady paycheck, the entire community feels the benefit. I love what you say about generational careers. Talk about how these projects create the kind of construction jobs that lead to these generational careers.

Mr. KNISLEY. So, let's, if we could, talk about the CHIPS Act. Can we talk about that, Senator?

Chair BROWN. Sure. Of course.

Mr. KNISLEY. So, the Intel factory, I worked intimately with the company as soon as the announcement was made in Newark, Ohio, in late January of 2022. And my job here in Ohio is to keep our 100,000 members to work every day through policies, and some politics with this, but also by working with the owners on this.

And so, in the span of 3 months, myself and a small delegation went to Phoenix, Arizona, to the Ocotillo campus for Intel; to Portland, Oregon, the Hillsboro campus, and also, to Albuquerque at the Rio Rancho campus. And we did tour the factory and we saw the scale of what this does for not only construction workers, but what it does for the American public, reducing inflation, and for our defense, making sure that these chips are done here in the United States.

But one thing that I found interesting by talking to the local workers there—and some of them had worked their entire careers; that was in my statement earlier—because of the commitment from companies like Intel that are not only innovative, but they're also changing their technology to stay competitive in that ultra-competitive market. It made a generational career for the pipefitter or the electrician or the sheet metal worker that was in that local community, and some of them actually had three generations on that project, due to this generational change that we're going to see the same thing in Columbus, Ohio.

And so, because of the CHIPS Act, that has now created that same dynamic in Columbus. We're building the project right now. But we know that, right after, they call it, phase 1, which is two fabs, the CHIPS and Science Act actually created the opportunity for three more phases, or another \$80 billion in investment in the Central Ohio region. We know that that will now create that same model that we saw in the three other regions across the United States.

Chair BROWN. Thank you.

And we have talked a number of times, Mr. Knisley, about the Federal Government helping to support workers, especially young people considering entering the trades. So, I may ask you another question on the record later about that in writing, just because of time.

Mr. Coes, before we passed the bipartisan infrastructure law, big projects moved slowly or didn't move at all. We had seemingly for-

gotten how to build things in this country. You know, that's why Senator Portman and I bipartisanly worked on this so much in Ohio, because we knew that it would actually result in speeding things up and making things happen.

I want to talk to you about, briefly, Cleveland. The city's next transformational project is connecting downtown Cleveland to Lake Erie. Because of a large freeway and railroad tracks, and we know what interstate construction did dividing communities—often communities of color—because of that large freeway, because of the railroad tracks, generations of Clevelanders have grown up near the lake, but unable to access the lake. This project will help change that.

If DOT's current Competitive Grant Programs don't continue, what happens to the transformational projects, like in one of America's great cities, like Cleveland, that our cities, counties, and States are developing?

Mr. COES. The short answer is those projects sit on the shelf. These grants provide not only capacity to local governments to partner with private sector—I know that particular project is working with Bedrock and so many other private sector interests—to think about how to do transformer projects.

In addition to that, that means less people able to get jobs through these programs. We have seen already through the bipartisan infrastructure law how discretionary grants are taking these mega-complex projects, like the Brent Spence Bridge, from actually vision to actually execution.

We are really excited that we're about to break ground on the Brent Spence fairly soon. But more importantly, it demonstrates that, within the Department of Transportation, we have the capacity to take local ideas, even for big projects, and actually get them approved through our NEPA process in a timely fashion; at the same time, getting dollars to the ground to give more workers on those projects.

Chair BROWN. Thank you.

Connie and I live maybe five or six miles from Lake Erie. Those not exposed, who aren't lucky enough to live nearby the greatest body of freshwater in the world—which the Great Lakes is—might not see how important access to that lake is. And for far too many families, there are train tracks; there are highways that keep them from having access to that lake—for recreation, for all kinds of opportunities. So, your continuing that is really important.

I just want to make one statement in response to Dr. Geddes, and sorry, this won't be a question. But I just wanted to thank you again for your testimony. How important it is to strengthen and update our infrastructure.

Your testimony pointed out concerns about expanded Buy America requirements. They must be clear, I agree with you about that. But Buy America policy represents a simple choice in the iron, steel, and materials used in Federal infrastructure projects. In Ohio and South Carolina: made there or made in China. And I think it's pretty clear what the Americans want. If we're spending taxpayer dollars on infrastructure, I think the steel and pipe we use needs to be made in the United States.

So, thank you, all three of you.

Senator Scott.

Senator SCOTT. Thank you.

You know, I was talking in my opening statement, opening comments, about the fact that the impact of inflation has driven the cost of construction to the highest levels we've seen in the shortest period of time.

I think about the Inflation Reduction Act that some continue to celebrate as somehow mitigating the impact in our country on inflation. It's still to me a bit backwards.

One program within that IRA is the Greenhouse Gas Fund that has to get \$27 billion out the door by September the 30th. And the way I look at it—Dr. Geddes is an economist—you know, if you rush \$30 billion, \$27 billion, out of the door in an already hot, over-artificially stimulated economy, the chances of it having a negative impact within the construction industry I think is pretty high personally.

I think the fact of the matter is that the COVID relief package, the first bill passed by the Democrats, \$1.9 trillion; the Inflation Reduction Act; the IIJA; the CHIPS Act, those resources flooding into the economy—some of it, not all of it, immediately—only helped impact the inflation that the average American has been feeling.

So, from the macroeconomy perspective, the loss of spending power of the average American is around \$28,000 cumulative over the last 3 to 3½ years. Can you please speak, Dr. Geddes, to the inflationary impacts regarding infrastructure, specifically, and this development because of the inflationary environment that we find ourselves in today?

Mr. GEDDES. Yes, thank you, Senator. I think it's two ways of approaching that.

One would be from the macroeconomic theory that you mentioned. And you're stimulating demand in a highly supply constrained environment. And the theory implies that this is going to be inflationary.

On the sort of empirical or statistical side, it's difficult to tease out the effects of a particular program on the overall inflation rate.

Senator SCOTT. Yes.

Mr. GEDDES. But I think it's worth noting—maybe emphasizing a part of my testimony—to your original statement about how inflation in this sector, in the heavy civil construction sector, is higher.

There's a block quote, in my written testimony, that I have from *The Economist* in November 2023 that says, "The problem is that inflation has been rampant in the construction sector, making delays that much more pernicious. The single biggest component of the infrastructure package was a 50 percent increase in funding for highways to \$350 billion over 5 years. But highway construction costs soared by more than 50 percent from the end of 2020 to the start of 2023—in effect, wiping out that extra funding."

So, the purchasing power effects are being diminished or wiped out by the added spending—or added inflation.

Senator SCOTT. Thank you.

Mr. GEDDES. I added some more up-to-date numbers—

Senator SCOTT. Yes?

Mr. GEDDES. —on concrete costs, and so forth. And it's still higher than the Consumer Price Index.

Senator SCOTT. I want to ask you a question about NEPA. But before I go there, I want to, once again, highlight programs that the Government continues to provide resources for, but they never actually spend the resources that they provide.

As an example, back in 2021, Congress approved \$42 billion to help connect more Americans to the internet, basically. I'm looking at a tweet that I saw and found. At this point, it had been 987 days since the plan was enacted and zero Americans had been connected; zero shovels worth of dirt had been turned, even though there had been \$42 billion set aside for programs to help connect Americans. The challenge, of course, the Government rewards itself based on its intentions, not based on the actions that follow those intentions.

You mentioned the cumbersome process that NEPA creates for getting shovel-ready projects started.

Mr. GEDDES. Uh-hum.

Senator SCOTT. Would you expound for the rest of my time that I have?

Mr. GEDDES. Sure. So, NEPA had, again, very good intentions, I believe, when it was passed in 1970. It's grown over time. It's sort of, you know, a whole lot of things going on.

Senator SCOTT. A web of confusion.

Mr. GEDDES. NEPA, it's grown administratively, and it's now become an extremely serious barrier to rapid project delivery.

We're seeing that kind of delay in green projects where there's environmental groups that would like those projects to get out quickly, but then, they sort of run head-long into this cumbersome NEPA process.

And I think it's time for reform. I should probably highlight this study that I have here that came out in the past few weeks by one of my heroes, Bob Poole at the Reason Foundation, who surveyed other countries and how they do their NEPA processes.

Just to highlight, I could go—we don't have time—but I could go on across countries. Australia has sort of a one-stop shop for its environmental review and permitting process called the Department of Climate Change, Energy, the Environment and Water. And they have strict time limits on how quickly their reviews of environmental permitting processes have to go. Like 20 days for the first stage; 30 for the second. So, it is really a time-constrained process that still respects the desire to preserve the environment—

Senator SCOTT. Yes.

Mr. GEDDES. —as Australians do, but it doesn't have to be as long as it is in the United States.

And as we know, Senator, time really is money in infrastructure.

Senator SCOTT. Absolutely.

Mr. GEDDES. If you delay a project, it always goes up in cost.

Senator SCOTT. Thank you.

The last point—and I'm running out of time here—I would love for us, I'll submit it for the record, questions about the public-private partnerships that actually reduce costs, extends long-term maintenance, and puts part of the onus on the private sector.

Thank you.

Mr. GEDDES. Thank you.

Chair BROWN. Thank you, Senator Scott.

Senator Reed of Rhode Island is recognized.

Senator REED. Thank you very much, Mr. Chairman.

Thank you, gentlemen, for your testimony.

And Under Secretary Coes, we are seeing a lot of activity in Rhode Island. In fact, we recently had a call from Secretary Buttigieg informing us we received \$251 million for a large bridge grant, which will address 15 high-need bridges along Route 95.

And we're also seeing people working, and working at very, very good wages. So, this is, I think, a good program for middle-class American workers and, also, for overdue infrastructure. And our infrastructure needs were way overdue.

Could you tell us how, generally, how this project is improving infrastructure all throughout the country?

Mr. COES. Thank you, Senator.

You're absolutely right. We just this past month announced one of our big bridge improvement programs that is actually addressing some of the critical needs that we're seeing in bridges across the country that are in a state of good repair.

We believe these investments would not have happened without the bipartisan infrastructure law. And these investments are not only allowing us to hire workers from neighborhoods, but also allowing us to ensure freight resiliency and, also, allowing everyday Americans to ensure that they can get home safely.

We also are seeing that the private sector is also looking at other projects, working in tandem with local governments. For example, we are very close to doing a major groundbreaking with the Brightline West high-speed rail, which, again, would not have happened without the bipartisan infrastructure law.

So, those are just two examples of how working in tandem, these investments are really being transformative in communities.

Senator REED. And all of this work makes transportation more efficient, I presume. And second, it also is matched many times by private development, either directly in the project or very near the project, since the highways are opened up and it's more flexibility and more opportunity. Is that accurate?

Mr. COES. That is absolutely true, as noted. In addition to the bipartisan infrastructure law, we're seeing major investments through the CHIPS program, where we're seeing major private sector investments for new chip manufacturing, as well as EV manufacturing, locating near these new, improved infrastructure assets.

Senator REED. And, Mr. Knisley, how is this helping workers in the industry?

Mr. KNISLEY. Senator Reed, workers are benefiting from all the legislation over the past couple of years that has come out of Washington. When you look at infrastructure, that's a little bit longer-term maybe than what you would see with an EV plant or even the chips side.

But what you're creating in a time where demographics are working against all of us, and including the construction industry, it's created generational change for generational careers for young people. And I don't think they've seen that type of optimism come out for quite some time.

I can't overstate the fact—and it was in my final comments—that good policies come out D.C. and create great outcomes in every local community. It just does, whether you're putting, from the transportation side, new blacktop coming down, or for a long-term, 30-plus generational career at a chips manufacturing plant.

We anticipate our growth in the State of Ohio, even factoring in attrition with the retirements and deaths, to move from 100,000 men and women that put a hard hat on and work in union construction every day in Ohio to somewhere between 115,000 and 125,000 over the next generation for this.

Senator REED. Thank you.

And, Secretary Coes, I could not leave here without mentioning the Washington Bridge, which I'm sure you've heard of, a section of 195 that goes between Providence and East Providence, essentially, the metropolitan area of Providence. The eastward-bound bridge had to be closed before it would collapse, and we are seeking support for efforts to repair it.

But it brings up the question of the Mega Grant Program and, also, the Large Bridge Grant Program. And they have been helping States really in a significant way. We hope it will help Rhode Island eventually.

But can you comment on the role these programs have played?

Mr. COES. Senator, first, I want to acknowledge, yes, we are aware of the application and will definitely give it due consideration. And again, we'll continue to provide technical assistance to the project sponsor as we go through this process.

But you're absolutely right to call out that the Mega Program, specifically, as well as a number of our major discretionary grants, allows us to move major complex projects faster. If we did not have these resources, many of these projects would take more time, which means they would cost more money. But, more important, the benefits, whether it's reducing air pollution; greater accessibility; again, safety, whether it's from the freight corridors, but also to passengers, would not happen. That's why these investments are so critical today.

Senator REED. Thank you very much.

Thank you, Mr. Chairman.

Chair BROWN. Thanks, Senator Reed.

Senator Van Hollen of Maryland is recognized.

Senator VAN HOLLEN. Thank you, Mr. Chairman.

Thank all of you for your testimony here today.

Secretary Coes, I want to start with some thank you's to President Biden, Secretary Buttigieg, and yourself on the really great, fast Federal response to the collapse of the Key Bridge, a huge tragedy, of course, for Baltimore City, our State, and had national implications. We're grateful for the fact that we were quickly enrolled in the Emergency Relief Program, the \$60 million for traffic mitigation, and, of course, other Federal agencies that helped clear the channel and open the port.

But, obviously, now we want to move forward with the reconstruction and are really pleased to see the President's disaster supplemental that includes \$3.2 billion for the Emergency Relief Program, and we look forward to working with you on that to try to

make sure we get it through the Congress just as quickly as possible.

I will say that, if that had also been a transit route over the bridge, it, obviously, would have been even a bigger catastrophe in terms of transportation. So, I do think we need to be looking in Congress at an Emergency Relief Program that applies not just to bridges and other transportation, sort of roads, but also to transit.

And another thing I just wanted to flag is I've been working on the Moving Transit Forward Act with Senator Fetterman, which would address some of the operational sides of the expenses and costs for States.

I know your budget, as you proposed it, allows metro systems around the country to use their funds for either operations or capital, and I think that's a good direction to go and we want to build on that.

Thank you, also, for attending a gathering earlier last year, I think—

Mr. COES. Uh-hum.

Senator VAN HOLLEN. —with Governor Moore, Senator Cardin, and myself, and Congressman Mfume on the Red Line.

And obviously, the bipartisan infrastructure law has been mentioned a couple of times this morning, but I just want to remind you—and I know you're aware of it—that that bill has a provision in it, and I am quoting from that bill, "The Secretary shall provide full and fair consideration to projects that seek an updated rating after a period of inactivity following an earlier rating and evaluation." End quote from the statute.

So, would you agree that the previous work done by MDOT and FTA in support of the Baltimore Red Line Project should not be wasted, and that once submitted to FTA, the Red Line Project should be able to receive a rating more quickly, given all the previous work that had been done?

Mr. COES. Senator, I will just say, as I said previously when we were together in Baltimore, you have my commitment to working with the State and Baltimore to get this project across the finish line. And, yes, we do agree that the information and effort that had been previously done should be part of the process. And that's why I'm pleased to say that, even as of today, FTA is working closely with the State and the transit agency to do that, just that. So, we hope that in the near term we'll have something more positive to say.

Senator VAN HOLLEN. No, I appreciate that. Just for my colleague's benefit, our previous Governor pulled the plug on the Baltimore City Red Line after it had already gone through all the reviews and approval. Essentially, Maryland sent close to a billion dollars to the rest of the country. But, as part of the infrastructure bill, we included this language, and under the current Governor, Governor Moore, and the city, we're all moving together to get the Red Line on track, literally.

I would just like to also ask you, Secretary Coes, about some of the transportation safety issues. We had included in the infrastructure modernization bill provisions from the bill that I had introduced that deal with transit safety, establishing the safety committees to identify safety risks. And I understand that the Department

and the FTA are close to finalizing a general directive to transit agencies to address, specifically, assaults on transit workers. That's a piece of this overall safety plan.

Action on these issues cannot come fast enough. Last year when we had this hearing, I actually had a witness from the Baltimore Transit Union and that morning he had been in the hospital with a transit worker who had been assaulted, stabbed.

So, what is the timeline for finalizing the general directive and additional rulemakings to protect workers and riders from assault?

Mr. COES. Senator, as you know, immediately after the enactment of bipartisan infrastructure law, the FTA sent out an immediate "Dear Colleague" letter to every transit agency letting them know that they needed to stand up their own safety committees.

Since then, I can tell you 100 percent of the transit agencies are in compliance. In addition, as you mentioned, we have put out a draft, a general directive. We have now received those comments. We are hoping in the next couple of months that we will be able to finalize those comments, and then, go out publicly with the final directive.

Senator VAN HOLLEN. I appreciate that. Thank you. And I may have some followup questions for the record.

Mr. COES. Absolutely.

Senator VAN HOLLEN. But thank you. Thank you all.

Thank you, Mr. Chairman.

Chair BROWN. Thank you, Senator Van Hollen.

Senator Smith of Minnesota.

Senator SMITH. Thank you, Mr. Chair.

And welcome to all of you. Thanks so much for joining us today.

So, I want to focus my questions to you, Mr. Coes. And I'm going to focus for a minute on rural transit.

So, I chair the Transit Subcommittee and I also represent a State with large communities, many communities of rural places and small towns. And I know that, mostly, when we talk about transit, as my good friend from Maryland has—you know, when we think about what goes on in big cities, we think about big buses and trains. But, of course, we know there's an incredibly important network of rural transit agencies across the country, including in Minnesota.

And we also know that the bipartisan infrastructure law puts significant new resources into rural transit and increased funding for programs like bus grants and low and no grants that really benefit rural agencies as well.

Minnesota has received two of these grants from the FTA for rural transit. One for SMART, which is based in Austin, Minnesota, to build two new transit facilities, and one for UCAP and Friendly Rider Transit to buy propane buses, and then, install the fueling infrastructure that they need.

So, I think that one of the best things about the bipartisan Infrastructure and Jobs Act is that it is lifting up all of these communities, including rural communities, that often have many people who rely on transit to get around.

So, could you just give us sort of a high level what your view is of how the Biden infrastructure law has really supported rural transit around the country?

Mr. COES. Senator, thank you for that question and, also, your leadership on this topic.

As someone who grew up in rural southwest Georgia with a mother who was disabled, I know firsthand the importance of rural transit. Being able to get an elderly grandmother to a doctor's appointment, or just being able to take a father to a veterans' hospital without having a car, rural transit was a lifeline.

So, I can tell you, because of the bipartisan infrastructure law, we've now seen historic resources going directly to rural transit through formula dollars, but also through our discretionary dollars. We have now over \$11 billion of the bipartisan infrastructure law, which represents close to \$35 billion of resources, going directly to meet the unique needs of rural communities. That would not have happened without the bipartisan infrastructure law.

Senator SMITH. Thank you.

I think it just illustrates how this law has helped so many rural communities in so many ways. And I also know that rural transit authorities tend to be small; they're scrappy; they're very innovative, and they don't have a big grants department—

Mr. COES. That's correct.

Senator SMITH. —that they can rely on to go and chase these Federal dollars.

So, I know that you all have put a lot of time and energy into figuring out how to help rural transit authorities navigate through these different Federal grant opportunities and reporting requirements that also follow. Could you just tell us a little bit about that work? Because I think it's important for people to understand.

Mr. COES. Absolutely. We have stood up within the Department a number of rural-specific programs to provide direct technical assistance. We have a \$20 million technical assistance program directly for rural and tribal communities to not only understand how to navigate the Federal process, but also how to deliver a project. Because sometimes that rural mayor or that transit department may be also the planner.

Senator SMITH. Right.

Mr. COES. They also might be doing five other jobs. And so, the Federal Government can't just be on the sidelines; we want to be a partner.

In addition to that, we also know that we want to support rural communities as we prepare for the 21st century. We have a stood up a new rural EV toolkit that provides rural communities the step-by-step process to make sure that they're not left behind with the electrical vehicle revolution.

But, also, we're seeing amazing innovation where rural communities, working with State DOTs, are partnering with private companies. For example, we awarded \$9 million to the North Carolina DOT to partner with nine rural counties and Via to provide on-demand services for those residents. That's just an example of how we can meet the needs, but also prepare rural communities. And that's what the bipartisan infrastructure law allows us to do.

Senator SMITH. I really appreciate that. I also appreciate you highlighting the innovation that we see happening in these rural transit agencies that have to be creative—

Mr. COES. Uh-hum.

Senator SMITH. —because the models that might work in a larger city are just not going to work there.

Mr. COES. Exactly.

Senator SMITH. And so, they are doing some pretty incredible work to make sure that people can get around and can be connected.

Thank you very much, Mr. Chair.

Chair BROWN. Thanks, Senator Smith. I thank you for your comments about transit.

Senator Cramer is coming back. So, I'm going to go a bit of a second round until he does.

And, Under Secretary Coes, I appreciate what you have said about transit-oriented development. One of the wonderful things about getting to chair this Committee, when I took it over, it's always been called Housing and Urban Development—I'm sorry—Banking, Housing, and Urban Development. It was really the Committee that took care of Wall Street until I became chair. And we have emphasized sometimes—and Senator Smith does that—sometimes calls it Housing and Banking.

But one of the focuses of this Committee is public transit, and there isn't nearly enough interest in this town in public transit. It gets a whole lot of people, particularly moderate-income people, to work.

I remember a story. I was in Cincinnati one day and their public transit system was called SORTA. And I talked to the leader of the transit system who was struggling with keeping some additional routes that are there during the week, but routes that they don't have enough ridership for the weekend.

And there was a young woman who worked at a moderate \$10 or \$12, \$13-an-hour job, and the transit system—she had to work; she had to work on Saturday—the transit system didn't run on Saturday. So, she had to Uber to work on Saturday. She talked to her boss, and her boss said, "You've got to come in on the weekend. That's the way it is if you want to keep this job." And she had to Uber to work on Saturday, which ate up most of her income. So, one of the things we were able to do is expand the service, the SORTA service.

So, Senator Cramer just entered. I'll turn to him in a second.

But I like what you said about the opportunity for new housing construction near transit developments. That's really important in all the big cities and the moderate-size cities in my State. And what DOT can do to support such transit-oriented development and transit-oriented development can bring opportunities to those communities, again, especially those communities that in the '60s, '70s, and '80s were, essentially, almost demolished for interstate highways.

And I look to any of the major cities in my State, particularly Columbus, where the number of people living in a neighborhood on the east side of Columbus, mostly African American, shrunk by about two-thirds because the highway went through, disrupting, cutting, demolishing businesses, demolishing people's homes. They had to move elsewhere. The community's vitality was, essentially, sapped and wasn't able to rebuild. So, always thinking about those issues.

So, thank you for that.

Senator Cramer from North Dakota is recognized.

Senator CRAMER. Thank you, Mr. Chairman.

And thank you to the witnesses for being here.

Mr. Coes, I'm going to initiate a conversation with you that will play off a little bit, I think, on your conversation with Senator Van Hollen relating to formula fixes. I'm looking for some potential fixes.

To a challenge I just learned about recently, I was at a groundbreaking ceremony for an expansion of the Hector International Airport in Fargo. And Fargo, of course, is our most populous city in North Dakota. And the mayor, Mayor Tim Mahoney, came up to me, and that's one of the great things about a small place, the mayor talks right to you. He's better than any lobbyist, just so you know, and I love my lobbyist friends.

But he brought this to my attention, that Fargo had gone—you know, they had one more baby or something and went from 199,999 people to 200,000. So, you already know where I'm going. And he noticed this reduction in the formula funding, or at least in the amount that Fargo got.

Now, it gets a little more nuanced than that, and I'm sure you're familiar with that. Because they went from an MPO to a TMA in the transit funding. And by the way, just so you know—and I think this gets back to your previous discussion with Senator Van Hollen—the formula changes, of course, but not just the formula; you know, the flexibility for the community to use the money the way they were using it, which, in this case of Fargo, was for operational expenses.

And not understanding all of the fungibility of cash and all the ways you maybe could do this, he was just asking for help. And so, as we dug into it a little more, we learned that there are, in fact, rules/laws that govern how you can distribute these funds, the transit funds, based on the size of a community.

My concern is that there's a little bit of a perverse incentive in that formula that actually discourages growth. And we don't want that, I don't think, on the one hand. On the other hand, maybe there's a rational reason for it.

My ask of you is just I describe this situation. I tell you this story, and then, maybe just see if you have some thoughts about it; ideas on how we could, either legislatively or through a budget process or, you know, whatever discretion the agency would have to sort of not punish communities like Fargo, and see if there's a better way to do this.

Mr. COES. Oh, Senator Cramer, thank you for bringing that issue here—not only to my attention, but I know this is one that is shared within our building.

Senator CRAMER. Sure.

Mr. COES. Communities need to be able to meet their needs. And we believe that, whether it's through the formula program or even from our discretionary grants, we should be able to give them as much flexibility to achieve those goals.

We do believe, and as I was discussing with Senator Van Hollen, that transit agencies, particularly coming out of COVID, are recognizing that travel patterns are different.

Senator CRAMER. Sure.

Mr. COES. We're seeing that now developers want to build near transit and create more walkable communities. We need to give transit agencies their ability to leverage not only the pent-up demand that they're seeing in the private market, but also the unique needs of their residents, as we deal with these travel demands.

So, we would love to work with you, as we said with Senator Van Hollen, to look at how we can make sure the formula programs, particularly on the transit side, particularly these larger systems, have the flexibility they need to meet the changing environment, which, again, comes back to people want to live in great quality neighborhoods.

Senator CRAMER. Sure. And I love that you refer to them as larger communities because we kind of consider Fargo to be larger than the small ones—

Mr. COES. Right.

Senator CRAMER. —but smaller than the large ones.

Mr. COES. That's what they say about Thomasville, my hometown.

Senator CRAMER. Right.

Mr. COES. We're still a small town.

Senator CRAMER. Yes. That's the flexibility which I really appreciate. And quite honestly, and I know we've been talking—obviously, we're talking about the bipartisan infrastructure law, which I not only supported and voted for, but championed. And the formula issues of all the distribution of funds is really important to small States, right? We can't sort of reserve 100 miles for gravel in the middle of an Interstate Highway System.

But, similarly, for our communities, where you have populations that certainly depend on good transit systems, we just want it to be, to your point, be successful and we want the communities to be successful.

So, to the degree there's legislative fixes that are necessary, maybe Chris and I could work together with you on some of that, right?

Mr. COES. Yes.

Senator CRAMER. And then, where there's flexibility within the agency, we would sure encourage that as well.

Mr. COES. Absolutely.

Senator CRAMER. And, Mr. Chairman, that's all I have. Thank you. Thank you.

Chair BROWN. Senator Cramer, thank you for the thoughtful questions and the followup. And it was worth stalling a little to wait for you to get back here.

[Laughter.]

So, thank you for making us all think about these important issues.

Thanks to the three witnesses today. It shows we're making progress in long overdue investments in infrastructure and the men and women of the construction workforce leading the way.

And I love thinking about that bridge I mentioned. We have much more to do in the years ahead. I'll keep working with U.S. DOT—thank you for that—and others at your department, on Ohio priorities like replacing more bridges, building big projects like the

North Coast Connector in Cleveland. I'm going to keep reminding you of that.

We'll continue working with the building trades to ensure that our transportation infrastructure and manufacturing sector, as you pointed out, Mr. Knisley, are making the Nation's economy stronger, more competitive, and delivers more of the generational jobs that you talked about.

Thanks for the witnesses for testimony today.

For Senators who wish to submit questions for the hearing record, those questions are due 1 week from today, Wednesday, August 7th, and witnesses have 45 days from that day to follow up with answers. So, best wishes. Thank you all.

The Committee is adjourned.

[Whereupon, at 11:14 a.m., the hearing was adjourned.]

[Prepared statements and responses to written questions supplied for the record follow:]

PREPARED STATEMENT OF CHAIR SHERROD BROWN

For too long, too many people in Ohio and across the Nation thought, for good reason, that their leaders had given up making our infrastructure and manufacturing base the best in the world.

Congress' inaction and the empty promises of Presidents of both parties left Americans to fend for themselves as they swerved to avoid ever bigger potholes, and as they bypassed dilapidated bridges, and as they dodged chunks of concrete falling from decaying overpasses, and as they waited longer and longer for buses that were getting older and older.

Americans saw the consequences of years of inaction.

And they watched as other countries—our competitors and our adversaries alike—added high speed rail, built better roads, upgraded their water and sewer, installed 5G networks.

Our failing infrastructure was only compounded by a misguided tax and trade policy that shuttered factories in places like Zanesville, Mansfield, and Chillicothe and jobs shipped overseas.

At last week's hearing, I talked about how our economy and national security interests are interconnected.

Ensuring that the United States leads the world in producing semiconductor chips is critical to both our entire economy and our national security.

Because of the work of many of the Senators on this Committee, we passed the Bipartisan Infrastructure Law and the Chips and Science Act.

But people don't really care that we passed a bill. They care about results. So today, let's look at the results:

More than 60,000 infrastructure projects are already underway across the country, because of the Bipartisan Infrastructure Law.

These projects are improving 165,000 miles of road. More than 9,400 bridges are getting repaired.

Every State is benefiting. The Mobile River Bridge in Alabama is getting improvements. Rural and Tribal communities in Minnesota, Idaho, and other States are getting new buses and vans. We are making bus and rail stations that were built before the Americans with Disabilities Act finally accessible in places like Philadelphia and Cleveland.

Six years ago, Rob Portman and I introduced the Bridge Investment Act, to replace or repair the hundreds of bridges in Ohio and thousands around the country that in many cases had not had serious repairs in decades.

And now, because of the years of work we did that culminated in the Bipartisan Infrastructure Law, we are finally, finally building a new Brent Spence companion bridge.

And we are replacing the 90-year old Western Hills Viaduct, which is crucial to Cincinnati.

Brent Spence is a critical link in the supply chain network, transporting 160,000 cars and trucks and \$2 billion in goods every day—that's 3 percent of the country's entire GDP. And it's part of the fabric of the city in Cincinnati, helping to create the vibrancy of one of America's great cities.

But Ohioans know the old Brent Spence is as dated as it is dangerously crowded, and we've heard from Ohioans who are concerned about concrete crumbling on the Western Hills Viaduct.

We are fixing that, and we are seeing new construction across Ohio—and it's not just huge projects like the Brent Spence and the Intel Fabs in Licking County.

We are seeing major upgrades to streets and bridges across Ohio, including Ohio's rural counties and Appalachia. We announced this month that the Market Street Bridge, which connects Steubenville with West Virginia, will finally be replaced.

We are also making critical investments to modernize public transit.

Americans take 21 million trips on transit every day. And when buses and trains and all the infrastructure required to operate them are not up to date, service is slower and less reliable.

Imagine driving the same car every single day for 40 years. That's what operators on Cleveland's RTA have been doing for years.

In Cleveland, I met with workers whose job it is to maintain rail cars that date back to the Reagan administration. At the rail car garage on the East Side of Cleveland, you actually see these workers machining replacement parts for cars that are so old, that's the only way to get the parts—they don't make them anymore.

But now, finally, because of the Infrastructure law, Cleveland will get 60 new rail cars.

And we all know the U.S. lacks a robust national passenger rail network that other major economic powers have. We are changing that.

We're seeing construction of new facilities to improve transit and rail service, like Akron Metro's new maintenance facility and a new Amtrak station in Bryan, Ohio. We also know how crucial manufacturing and innovation are to our economy.

Today, modern infrastructure is driven by information technology.

The microchips that power our machines and computers are the product of American design and ingenuity—but we have become dependent on other countries for the production. 90 percent of the chips we invented are now made overseas.

Taiwan is dominant today. Alarming, China is trying to become dominant tomorrow.

We wrote the CHIPS and Science Act to change the trajectory.

It's allowing us to build a new generation of chip production factories in Ohio and around the country.

All of these investments are growing our economy and creating jobs and opportunity.

In the past 3 years, we have added 670,000 construction jobs to the U.S. economy. This is only the start—hiring is expected to pick up even more in the coming years, as more and bigger projects get underway.

And that doesn't even take into account the jobs throughout the manufacturing supply chain, because we made sure these laws have the strongest "Buy America" rules ever.

The steel, iron, pipes and other construction materials used in these projects are being made in Ohio and across the U.S., by American workers—not imported from China.

Whether they're pipefitters or bricklayers or ironworkers or steelworkers—these are good, middle class jobs with high wages and on-the-job training opportunities, where you can develop a craft and build a career.

Few understand that better than one of our witnesses today, Mike Knisley, Secretary and Treasurer of the Ohio State Building and Construction Trades Council.

Mike represents the men and women who are doing the real work on these projects. I was at an event last summer with Mike in Columbus—it was a graduation for a training program that places workers directly into union apprenticeships in the Trades. It's creating opportunity for so many people who haven't had a lot of it before.

Every one of those graduates had on T-shirts that said in big letters on the back, "Direct Path to the Middle Class".

That is what the jobs are that we're creating—a direct path to the middle class. This is how you build an economy that upholds the dignity of work.

PREPARED STATEMENT OF SENATOR TIM SCOTT

Thank you, Mr. Chairman. Thank you to the witnesses for being with us today. Thank you for the Committee Members who are here with us as well.

One of the challenges I see on this conversation that we're having today is to realize that local problems need local solutions. It's really hard for folks in Washington, DC, to understand the transit needs of folks in Charleston, South Carolina, Summerville, South Carolina, Columbus, Ohio, or Chicago, Illinois.

The most effective thing that we can do is make sure that the resourcing goes without all the red tape and challenges that comes from Washington, DC. Getting that done seems to be too close to Peter walking on the water. Nearly a miraculous occurrence and manifestation has to happen for us to just do the simple thing.

I spent half my career in politics on the local level, understanding and appreciating transit systems, infrastructure projects, and what it takes to get those things done.

When I first became a senator, the one thing I did was, I decided that as a kid who grew up in a single parent household mired in poverty, who understood the transit needs of the poorest Americans trying to get to the job, I wanted to make sure that I was sensitive to the current state of Americans trying to get to work, so I decided I'd go back to the old bus routes and get on those bus routes and spend time talking to people waiting on the bus to come.

I remember talking to a grandmother who worked at Walmart, who wanted to spend more time with her grandkids on the weekends, but she would spend 80 to 90 minutes early in the morning waiting on the bus, seven hours at work, and 80 or 90 minutes to get back home. Three hours to work a 7-hour shift for slightly more than minimum wage to provide the resources necessary to help our grandkids have a better life and a better opportunity to experience and enjoy the American Dream. Having the conversations with folks who are struggling to make ends meet, thinking about how challenging it is as a local official to understand and then to decide the

right transit routes, so that the folks who need public transportation have access to the right routes at the right times to get to the right job. You just can't do that from Washington.

The one thing Washington has done poorly is to put on more onerous burdens on local government and State government, because somehow 535 people in Washington seem to know everything about local needs, and yet we seem to know nothing about getting the job done.

As an example, my friends on the left are always looking for a "new green steal." They call it the New Green Deal, but in the end it steals opportunity and innovation, creativity, and resources from local folks to make good decisions about what they need. But it's not just transit—it's actually the infrastructure needs that are delayed time and time again.

I was thinking about this recently and it takes about 7 years—seven years—for a project to turn the shovel on a new highway program.

I think about Highway 17 and its expansion in Mount Pleasant in South Carolina a number of years ago. The frustration I felt as the chairman of the county, waiting for all the red tape to be cut so that we could simply turn a shovel on a project that had been approved for years. And I sent some notes to my friends back on county council just to make sure that I was right about the 7-year process.

It could take up to 2 years for the planning and the programing just to meet Federal threshold so that projects can start. And then after you do that, it can take up to 3 years, whether it's NEPA or other environmental challenges through the Green New Steel. On top of all of that, you recognize that this onerous burden to start a road project takes 7 years.

Now, here's the challenging part. When you get the price of a highway project, let's say those days, it was several hundred million dollars, \$700 million. It's not anticipated that 7 years later, somehow, someway, miraculously, that same road project is going to cost the same amount of money 7 years later. That's what we call in South Carolina—ridiculous, hogwash. It just doesn't work that way.

But none of that is anticipated in the actual price that people pay. Waiting and waiting and waiting for the Federal Government just to do their jobs and get out the way. But then after you get through the environmental review and compliance, which 3 years later, then you go to the preliminary final design—up to 2 more years on this process.

And at the same time of this is happening, currently under the Biden administration, everybody wants to celebrate the IJA and the I.R.A., the most ridiculously named bill in maybe American history, the Inflation Reduction Act—that actually increases inflation—and the Chips and Science Act.

What happens? Well, the cost of construction explodes to the highest level ever. It costs more money to do the same thing than it has ever cost—three or 4 years later.

And so when you take a 7-year delay on a road, you take all of the impacts studies that is that it takes. We're not smart enough to do them all at the exact same time. We're going to wait for the first 2 years before we start the environmental impact studies, before we start the. if this was a business we would just fire everybody.

That's what I would do. That's what I did when I was in business. If you can't, if it takes you 7 years to get something started, I want a new—I want somebody else in charge. Americans want someone else in charge because the \$2 billion problem that they have in Maryland to rebuild a road—a bridge—that's going to take 4 years is ridiculous. Unnecessary.

All you need is common sense and people ready to go to work. And unfortunately, every time well-intentioned politicians made the decision that we know better than the local community, it costs jobs. It costs prices because they explode. I gotta tell you, 13 years on the local level is a really good education on what not to do.

Let's not burden local government with the Green New Steal—that \$7.5 billion in green funding that resolves to only eight EV charging stations—that takes all those dollars away from being able to have real progress on real roads for real people to get to their jobs.

Mr. Chairman, I'm glad we're having the hearing today. But I got to tell you, most Americans would say, skip the hearing block, block grant the money, and let a brother go to work.

That's what they would say.

PREPARED STATEMENT OF CHRISTOPHER A. COES

ACTING UNDER SECRETARY OF TRANSPORTATION FOR POLICY, DEPARTMENT OF
TRANSPORTATION

JULY 31, 2024

Chairman Brown, Ranking Member Scott, and Members of the Committee, thank you for the opportunity to testify today and for your leadership and partnership as we work to deliver projects to build a stronger, safer transportation system that connects the American people to jobs, to housing, to educational opportunities, and to one another.

DOT has been working tirelessly executing the vision of the Infrastructure Investment and Jobs Act (IIJA). Because of this generational investment, the Biden-Harris administration has announced \$461 billion of awards, funding over 60,000 specific projects in all 50 States, D.C., the territories, and for Tribes. As I travel across the country, these headlines don't come close to telling the full story about IIJA's significance.

Nationally, 47 percent of the U.S. population spend more than 15 percent of their annual income on transportation. IIJA isn't just an investment in infrastructure, it's an investment in our economy and workforce, in housing, and in our Nation's families. IIJA has allowed us to invest over \$91 billion into restoring and upgrading our Nation's transit service, creating thousands of jobs, and expanding access to even more. Bringing transportation, jobs, and housing together improves access to transportation while supporting local and regional economic development. In April, FTA announced the award of nearly \$18 million to 20 projects in 16 States in Transit Oriented Development discretionary funds to support community efforts to improve access and increase affordable housing near transit.

It's also critical that transit is available to everyone, regardless of ability. That's why the All Stations Accessibility Program (ASAP) is so important, allowing us to upgrade and modernize legacy transit stations built before the Americans with Disabilities Act of 1990 so they are accessible to people with disabilities. Last month, we saw the groundbreaking for the first project to reach construction under this program—an upgrade to six transit stations in Philadelphia to make them fully accessible and provide access to everyday destinations.

We're also investing in projects to reconnect communities, including through the Reconnecting Communities and Neighborhoods (RCN) Program. For example, in Columbus, Ohio, we're funding the development of a bus rapid transit (BRT) corridor along West Broad Street, which currently divides disadvantaged communities and is one of the most dangerous roadways in Ohio. Once completed, we expect that the availability of a reliable BRT system will result in more affordable mobility options, fewer pedestrian deaths, and greater private investment along the corridor. This project is just one example of how the transit investments are helping transform disadvantaged communities into thriving ones.

More broadly, we're exceeding our Justice40-covered programs goal, with 55 percent of the benefits from awards going to disadvantaged communities, particularly rural and Tribal. For example, at the border of Montana and Idaho, we're funding the rehabilitation of a critical segment of Interstate 90 to enable it to better withstand increased harsh weather events and make it safer and more reliable for travelers and vulnerable populations nearby. We're also replacing rural bridges in South Carolina that are disrupting vital farm-to-market and commercial freight routes with existing load restrictions due to their age and condition.

In March, we experienced a painful reminder of the criticality of our Nation's bridges to our daily lives and to our economy when the Francis Scott Key Bridge in Baltimore collapsed after being struck by a container ship. We worked rapidly with multiple partners to reopen the Federal channel and Port of Baltimore in less than 100 days and continue to work with them on rebuilding the Key Bridge. Even before that incident, we have been working with communities across the country to rehabilitate and replace aging critical bridges. Earlier this month, DOT awarded more than \$5 billion to support 13 large bridge construction projects, including \$251 million for the I-95 Bridge over Lake Marion in South Carolina, \$550 million for the I-10 Mobile River Bridge in Alabama, and \$251 million to repair a cluster of bridges on I-95 in Rhode Island, to name a few. These will join significant projects that are already underway. For instance, we expect construction to begin soon on upgrades to the Brent Spence Bridge at the border between Ohio and Kentucky, which carries \$400 billion in freight across the Ohio River each year.

I'm excited to see some of the earliest IIJA investments break ground, begin construction, and start to deliver benefits for the communities that they serve. We are doing our part to accelerate projects, including establishing a new Project Delivery

Center of Excellence, streamlining processes by simplifying and combining complementary notices of funding opportunity (NOFOs), and providing extensive technical assistance, especially for rural and Tribal communities. On behalf of Secretary Buttigieg and the entire Department, we appreciate your ongoing partnership and shared commitment to delivering a world-class transportation system for the American people.

Thank you and I look forward to your questions.

PREPARED STATEMENT OF MICHAEL KNISLEY

EXECUTIVE SECRETARY AND TREASURER, OHIO STATE BUILDING AND CONSTRUCTION
TRADES COUNCIL

JULY 31, 2024

Good morning, Chairman Brown, Ranking Member Scott, and Members of the Committee. Thank you for your leadership on building a resilient economy for American workers and their communities through Federal investment.

My name is Mike Knisley. I'm here to testify on the impact that Federal investments are having on the 100,000 men and women that I represent as Executive Secretary-Treasurer of the Ohio State Building and Construction Trades Council.

In our nearly 60 years as a Building Trades Council: There's never been a brighter future for the Tradespeople who build Ohio. Ohio owes this bright future to smart public-private investment—led by strong bipartisan leadership in Congress.

We're building BIG in Ohio. Over the next decade, we're looking at over \$200 Billion dollars in construction projects that will create generational careers that provide prevailing wages with health care and retirement benefits; as well as tuition-free Apprenticeship training for both present and future tradespeople.

The Bipartisan Infrastructure Investment and Jobs Act means that thousands of tradespeople in Southern Ohio and Northern Kentucky will build the Brent Spence Bridge. This bridge which besides being long overdue is a vital transportation corridor for our region and will be built by a diverse generation of construction workers—including tradeswomen like Saria Gwin-Maye of Ironworkers Local 44.

The CHIPS and Science Act means that nearly ten-thousand construction tradespeople will build Intel's newest semiconductor fabs in Columbus, Ohio. This project is creating family-sustaining construction jobs across the Central Ohio Region—but also in Ohio's Appalachian communities where the residents can see opportunity on the horizon again.

There's excitement in the air at places like IBEW 1105's Electrical Training Center, where a whole new generation of tradespeople will begin their Apprenticeships on the Intel project including having the potential to work their entire career at that facility, upgrading and maintaining the fabs.

Imagine that—lifelong, family-sustaining construction careers within commuting distance of Ohio's counties. This type of investment has the potential to deliver lasting economic recovery in Ohio's struggling towns.

Statewide the Ohio Building Trades have scaled-up their workforce development to meet the demand driven by these investments. Across Ohio, our 80 privately funded apprenticeship training centers are taking in their largest classes ever. The Building Trades training model is the gold-standard in workforce development where they train over 80 percent of all construction apprentices in Ohio—with zero tax dollars.

The continued high-road investment in construction projects generate the steady demand of apprentices needed for the next generation of local tradespeople.

Underinvestment in our Nation's infrastructure over the past 30 years has hurt economic growth in the communities where our members live and work. Now, with new infrastructure investment in places like my hometown of Lima, Ohio, good paying construction jobs are on the rise creating an environment where young people do not have to leave the Buckeye State to support their families.

The Ohio Building Trades believe that the rising tide of economic opportunity **MUST BE WITHIN REACH FOR ALL** Ohioans—including women, people of color, and veterans.

Thanks to our partners in industry and at every level of Government whose commitment to responsible contracting and sustainable jobs means that Ohio's rising economic tide reaches working families in Ohio.

Our commitment to our partners, is this: We will get the job done.

We ask you to match our commitment by ensuring that federally funded construction jobs go to American tradespeople. These jobs must provide benefits to working families in our communities. Despite the heavy workforce demand in certain regions

of our State, there is still depressed areas that have local tradespeople being displaced by companies who hire workers without proper documentation to work well below the required prevailing wage and without any benefits.

Properly executed, each new project built through Federal investment strengthens Ohio's construction workforce by growing our communities through local wages and benefits for working families.

And you can take the Building Trades' commitment to equal economic opportunity to the bank:

Our journey people and apprentices are protected by Collective Bargaining Agreements. CBAs are the great equalizer in wages, health care and retirement equity on every jobsite. They guarantee that each worker—regardless of race or gender—earns, dollar-for-dollar, the same pay as everyone else.

When Ohio's Building Tradespeople are bringing home a steady paycheck from major projects, their entire communities feel the economic benefits of those earnings. And thanks to Federal investment, these are the working Ohioans who will someday drive past Intel's factories or across the Brent Spence Bridge and say to their children and grandchildren: "I built that."

Thank you for allowing me to voice the economic stability and hope for the future that thousands of Ohio Building Tradespeople and a new generation of Ohio Construction Apprentices have thanks to these Federal investments in American workers.

I will end with my final comment: "Good infrastructure and investment policies that comes out of Washington create great outcomes in our local communities".

PREPARED STATEMENT OF R. RICHARD GEDDES

FOUNDING DIRECTOR, CORNELL PROGRAM IN INFRASTRUCTURE POLICY

JULY 31, 2024

Chairman Brown, Ranking Member Scott, and Members of the Committee, thank you for the opportunity to testify before you today on the important topic of the "Long-term Economic Benefits & Impacts from Federal Infrastructure and Public Transportation Investment". I'm Rick Geddes and I serve as the Academic Director and Founder of Cornell University's Program in Infrastructure Policy, or CPIP. I am also a Professor in Cornell's Jeb E. Brooks School of Public Policy, Professor of Economics at Cornell, and a Nonresident Senior Scholar at the American Enterprise Institute.

I am pleased today to discuss infrastructure policy. Civil infrastructure is indeed the backbone of any modern society. It encompasses the fundamental facilities and systems that support daily life, economic activities, and overall well-being. Its importance can be understood through several key aspects:

Infrastructure's Impact on the Economy

Infrastructure supports economic development. Well-developed infrastructure such as roads, bridges, ports, rail, and airports facilitate trade, reduce transportation costs, and enhance connectivity, driving economic growth. It supports industries by providing efficient logistics and supply chains. Infrastructure such as water supply systems, sewage treatment plants, and waste management facilities are crucial for public health. They ensure access to clean water, proper sanitation, and the effective disposal of waste, reducing the risk of disease outbreaks. Civil infrastructure also impacts the quality of life by providing essential energy services including electricity, heating, and cooling. Robust infrastructure is essential for disaster preparedness and the ability to respond to potential and real disasters. Well-designed and maintained infrastructure can withstand natural disasters such as earthquakes, floods, and hurricanes, minimizing damage and aiding in recovery.

Moreover, advances in infrastructure, such as smart grids and digital connectivity, drive technological innovation and improve efficiency across various sectors, including transportation, communication, and energy management. Overall, sound civil infrastructure is foundational to the functioning and advancement of society. It impacts every aspect of daily life, from economic stability and health to quality of life and environmental sustainability. Investing in and maintaining infrastructure is crucial for building resilient, prosperous, and equitable communities.

The Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Law (BIL), was signed into law by President Biden on November 15, 2021. The most recent major infrastructure-related act passed by Congress was the Inflation Reduction Act, which was signed into law on August 16, 2022. Given that almost 2 years have passed since the IRA was signed, it is now appropriate to assess the effects of both of these acts.

Inflationary Impact

Although those acts are important for addressing pervasive infrastructure problems, such as deferred maintenance, their impact has been more muted than anticipated, for several reasons. First, there has been significant inflation in the cost of the materials and labor necessary to deliver many projects over the past 2 years. As *The Economist* warned in November of 2023:

The problem is that inflation has been rampant in the construction sector, making delays that much more pernicious. The single biggest component of the infrastructure package was a 50 percent increase in funding for highways to \$350bn over 5 years. But highway construction costs soared by more than 50 percent from the end of 2020 to the start of 2023, in effect wiping out the extra funding.¹

Those cost increases have continued since November 2023. Although Covid-related cost increases (such as disruptions in supply chains) appear to be moderating, inflation in key construction materials has been stubbornly persistent and is likely to continue. As recently reported by Statista, the percentage change on previous year of the Producer Price Index (PPI) for June 2024 for cement was 6.9 percent. It was 6.8 percent for concrete block and brick. It was 6.5 percent for ready-mix concrete. For brick and structural clay tile it was 4.8 percent, and so on.² Those rates are routinely higher than increases in the consumer price index, weakening the purchasing power of Federal infrastructure dollars. Moreover, these costs do not include the labor necessary to utilize these products.

Permitting Process

Second, America's cumbersome permitting process under the National Environmental Policy Act of 1970, or NEPA, continues to delay projects. That is particularly disconcerting in an inflationary environment. As Robert Poole, Jr., (Director of Transportation Policy at the Reason Foundation and an MIT-trained engineer) states in a new June 2024 report,

The United States has an infrastructure permitting problem. Proposed projects spend years in the Federal environmental review process, delaying their eventual construction and the resulting benefits to their users. Project costs grow, sometimes dramatically, due to inflation during the years-long review process but also due to mitigation measures that are imposed on the project as a condition for going forward. And some projects end up not being built. Bipartisan infrastructure experts view the legal infrastructure that has evolved for implementing the requirements embodied in the 1970 National Environmental Policy Act (NEPA) as a significant factor.³

NEPA-induced project delays, as well as compliance costs, can be significant. As Michael Bennon, Daniel De La Hormaza and I reported in a 2023 article published in the *Journal of Regulatory Economics*, a typical Environmental Impact Statement (or EIS) under NEPA now takes about 4½ years and is over 600 pages long. Some EISs take over a decade to complete.⁴ In an economic sector where "time really is money," such long timelines often significantly increase project cost.

Although there are several avenues for NEPA reform, Australia offers an appealing approach. In Australia, the primary environmental legislation is the Environmental Protection and Biodiversity Conservation (EPBC) Act of 1999. Any action or project that is likely to have a significant impact on the national environment requires authorization under that act. A 2012 amendment to the EPBC includes an assessment of environmental impacts, as well as proposed offsets/mitigations. The Department of Climate Change, Energy, the Environment, and Water (DCCEEW) reviews nationally significant projects. Project developers must submit a preliminary application to DCCEEW, with strict timelines regarding how quickly the agency must respond. The agency must typically respond within 20 days to decide if the

¹ See: <https://www.economist.com/united-states/2023/11/22/spending-on-infrastructure-has-fallen-in-real-terms-in-america> (accessed July 28, 2024).

² See: <https://www.statista.com/statistics/1046602/inflation-construction-materials-us/> (accessed July 28, 2024).

³ Robert W. Poole, Jr. "Reforming Environmental Litigation", Reason Foundation, June 2024, p. 1.

⁴ See Michael Bennon, Daniel De La Hormaza, and R. Richard Geddes, 2023. "A Hazard Analysis of Federal Permitting Under the National Environmental Policy Act of 1970", *Journal of Regulatory Economics*, pp. 1–30.

project needs an assessment, and which of five alternative assessments is most appropriate.⁵

BABA Impacts

Third, provisions of the Build America, Buy America Act (BABA), although well-intentioned, appear to be inhibiting project delivery. BABA was enacted on November 15, 2021, as part of the BIL. The act requires Federal agencies to prioritize the use of American-made goods and services in infrastructure projects. That includes requiring that all iron, steel, manufactured products, and construction materials used in federally funded projects be produced in the United States. The act applies to all Federal financial assistance for infrastructure projects obligated after May 14, 2022.

On June 11, 2024, POLITICOPRO reported that, with the tighter BABA requirements, even minor products must be produced by U.S. companies in order to qualify for the available Federal infrastructure incentives. However, those items often are not available or are far more expensive than the imported versions, adding to cost and increasing delays.⁶

Compliance with BABA has thus become confusing for many contractors and project developers. The BABA waiver process, in which the newly created Made in American Office (or MIAO, which is part of the Office of Management and Budget) plays a central role, is rife with inconsistencies. What qualifies as a waiver under BABA is unclear to many market participants, which greatly slows project delivery.⁷ This has become a major source of concern and delay in project delivery.

It appears that, in the laws' zeal to assist U.S. domestic manufacturing, it has created conflicting policy objectives and significant confusion among providers. The goal of supporting U.S. domestic manufacturing is conflicting with accelerating delivery of infrastructure while ensuring wise use of taxpayer dollars. Ensuring crystal-clear guidance from MIAO regarding BABA waivers would be an important first step in facilitating efficient project delivery.

Public-Private Partnerships Can Support Higher Infrastructure Needs

The BIL authorizes \$1.2 trillion in spending for roads, bridges, rail, water, the power grid, and high-speed internet. In addition, aspects of the BIL encourage greater private-sector participation in U.S. infrastructure delivery. Section 80403, for example, increases the national limit on Private Activity Bonds (or PABs) for qualified highway or surface freight transportation facilities from \$15 billion to \$30 billion.

More can be done, however, to encourage greater private involvement in U.S. infrastructure delivery, which would help address several stubborn problems we face today. Indeed, the present moment presents an opportunity for the private sector to take on a larger role in providing infrastructure financing beyond what can be provided by the Federal Government.

There are many cases that support the success of public-private partnerships in building, operating, and maintaining various types of infrastructure. For example, rebuilding the Francis Scott Key Bridge in Baltimore offers the chance to bring American infrastructure delivery up to rest-of-world standards through better cooperation between the public and private sectors. The core of such cooperation is a long-term contract between the public and private sectors known broadly as a "public-private partnership," or PPP.

The central aspect of a PPP is that it bundles or "wraps" the design and construction of a piece of infrastructure together with its operation and maintenance over the long term, such as 25 or 30 years. Such a PPP might also include private-sector financing to cover the new bridge's substantial design and construction costs. Because the Key Bridge featured all-electronic tolling, a user-fee funding source already exists to help pay for the new bridge (especially for maintenance) over time.

Although the Federal Government has committed some funding to reconstruct the Key Bridge, it will likely require more than this initial commitment. A PPP for the Key Bridge that combines design and construction with future operation and maintenance, for example, usually includes provisions to ensure that the infrastructure is properly maintained. This reduces the likelihood of deferred maintenance, one of the main problems plaguing U.S. infrastructure today. Indeed, maintenance has

⁵See Robert W. Poole, Jr. "Reforming Environmental Litigation", Reason Foundation, June 2024, p. 20.

⁶See James Bikales, "Biden's Infrastructure Push Crashes Into His Buy America Agenda", *PoliticoPro*, June 11, 2024.

⁷See, e.g., Tim Duit, "Examining the U.S. Department of Transportation's Regulatory and Administrative Agenda", Testimony Presented to the Committee on Transportation and Infrastructure, Subcommittee on Highways and Transit, July 24, 2024.

been deferred on so many roads and bridges that it is difficult to bring them all up to a state of good repair.⁸

Rather than simply “bouncing back” from this bridge disaster, which disrupted supply chains across many industries, a long-term PPP provides the opportunity to “bounce forward.” A quiet but vast technological revolution has occurred in infrastructure since 1977, the year the Key Bridge went into service. Improvements in materials (such as concrete and asphalt), sensors, designs, and more are readily available. Such improvements can be incorporated into the new bridge’s design and construction, as well as its operation and maintenance by “future proofing” contracts with the private sector.

Today many roads and bridges that were built in the 1960s and 1970s could benefit from technology and innovations that did not exist in those decades. Because PPP contracts include operation and maintenance over the long term, there is a risk of locking in outdated technologies if there is not a forward-looking perspective included in the process. Future proofing refers to the risk of not adopting available innovative technology and design standards well into the future. A future-proofed contract places that risk on the private partner, thus ensuring that private capital, incentives, and expertise are deployed to make U.S. infrastructure as resilient as possible for decades to come.

The other pitfall with any large construction project is time delays. Many U.S. infrastructure projects notoriously run over time and over budget. When completed, Phase 1 of New York’s Second Avenue Subway, for example, cost about \$2.5 billion per mile. That is 8 to 12 times more expensive than similar subway projects in Sweden, Italy, Paris, Berlin, and Istanbul.

A properly structured PPP contract puts the risk of time and cost overruns on the private partner rather than the taxpayer. The private partner can be incentivized to deliver the project on time via financial penalties for late delivery and rewards for delivery ahead of schedule. Evidence suggests that projects led by private entities often come in either on time or ahead of schedule.⁹

Finally, PPPs allow projects to cut through much of the bureaucracy that often slows U.S. projects. America has typically used a design-bid-build (DBB) approach, where a Government entity first bids out the bridge’s design and then bids out the chosen design. Combining and integrating the design and construction into a single project results in quicker delivery and more synergies between design and construction firms. New York’s widely acclaimed new Tappan Zee Bridge was built using such a contract.

The Key Bridge disaster reinforced the importance of risk assessment, and assessing all situations that could happen in the supply-chain process. Evaluating all processes and planning for every “what if” situation will help both the public and private sectors to handle such a tragedy.

Congress can take steps in the future to facilitate greater use of PPPs in the United States. One is to encourage States and regions to utilize “PPP units.” PPP units are quasi-Governmental entities that assist the public sector with pre-project screening, project prioritization, education, and expert advice. PPP units have been established in Australia, Canada, China, Israel, Japan, Egypt, the United Kingdom, and India, among many other countries. They strive to ensure that infrastructure projects attract private participation while promoting the public interest. Despite their global popularity, PPP units remain relatively underused in the United States. PPP units have effectively supported private participation in infrastructure around the world. Because the U.S. lags other developed countries in PPP use, the benefits of such units would likely be large if implemented here.¹⁰

Interestingly, one side effect of the BIL is that more States and local governments are working together to coordinate their infrastructure efforts. This may lay the groundwork for future cooperation under the auspices of regional PPP units. As *The Economist* states:

Some also think that the infrastructure law may pay other dividends. To manage all the grant applications and the funding, the Federal Government asked States to establish infrastructure coordinators, leading to more joined-up planning for water, roads, energy and more. “It goes against a

⁸See, e.g., the American Society of Civil Engineers quadrennial infrastructure “Report Card” at <https://infrastructurereportcard.org/> (accessed July 28, 2024).

⁹See, e.g., Stefan Verweij, Ingmar van Meerkerk, and Carter B. Casady, “Assessing the Performance Advantage of Public-Private Partnerships: A Comparative Perspective”, London: Edward Elgar, 2022).

¹⁰See R. Richard Geddes and Carter B. Casady, “Private Participation in U.S. Infrastructure: The Role of PPP Units”, Washington, DC: American Enterprise Institute, October 26, 2016.

hundred years of how States have worked,” says Mr. Ferrer. “It’s been hard and awkward for them. But it is a better way to do things.”¹¹

Permitting Processes Can Facilitate Projects

As noted above, with the significant progress of Federal infrastructure funding to support the need for new and updated infrastructure, one of the stumbling blocks is the permitting process. Large projects often cross many jurisdictions, including Federal, State, and local jurisdictions. The permitting process can take years to coordinate and can add to the cost and timetable of a project.

Uncertainty around permit schedules can be costly and creates significant variability for organizations that want to take advantage of the new infrastructure funding. With much funding only available until 2026, inefficiency and permitting delays can derail a project. Complex processes, poor data governance, and resource constraints are some of the primary factors underlying today’s permitting challenges.

A White House study in 2020 found that the NEPA permitting process, which most major infrastructure projects must go through to receive a Federal permit, takes between 3.5 and 6 years to complete, on average.¹²

Permitting agencies that can assume a leadership role for managing the process and for communicating with all entities can play a significant role in facilitating progress and getting projects in place more quickly. It is imperative that Governments at all levels support permitting reforms to speed critically needed infrastructure improvements. A central permitting office can support the introduction of integrated permitting capabilities at the State and local levels. A KPMG study offers insight into the cycle time, project application status, and suggests streamlining the process by which infrastructure funding is directed to projects and communities that need it.

Although many States have resources assigned to permitting-related issues, only some have dedicated offices sufficiently resourced and empowered to address the known issues. Today’s permitting challenges are exacerbated by the upcoming accelerated pace of infrastructure investment. There is an urgency to establish clear guidance, enabling clear communication and providing access to consistent information.¹³



¹¹ See: <https://www.economist.com/united-states/2023/11/22/spending-on-infrastructure-has-fallen-in-real-terms-in-america> (accessed July 28, 2024).

¹² “Environmental Impact Statement Timelines”, Executive Office of the President Council on Environmental Quality, June 12, 2020.

¹³ Dr. Christian Robert and Suzie Heap, “Permitting: Streamlining Delivery of Today’s Infrastructure Opportunity”, KPMG, March 2023.

Cyberthreats

Rising geopolitical tensions are injecting national security concerns into what were previously viewed as core civilian activities. Growing cyberthreats to America's electrical grid, as stressed by FBI Director Christopher Wray in recent testimony, serves as a case in point. Although geopolitical events are inherently unpredictable, this is likely to drive further investment in energy and advanced and defense-related manufacturing, again an example of how the private entities can support Government.

Technology and Innovation Factors

The rapid pace of technological change in infrastructure is unprecedented. New types of concrete, energy storage and generating sources, including hydrogen and a new generation of nuclear reactors, are appearing regularly, often due to the investments that companies are making in technology to drive greater and faster innovation. Although welcome, the ultimate impact of this technological wave on the infrastructure landscape is quite challenging to predict.

Increasing Private Investment in Infrastructure

Greater use of PPPs offers investors new opportunities to participate in U.S. infrastructure as an asset class. Importantly, many investors in infrastructure via PPPs and other avenues are large institutions. Those institutional investors include public and private pension funds, insurance companies, sovereign wealth funds, and university endowments, among others. This demonstrates how private investment can be a "triple win" for public infrastructure owners, for the public using that improved and maintained infrastructure, and for institutional investors who place their retirement savings in infrastructure assets and receive appealing returns.

The global investment community has recognized that both civil and social infrastructure is an important asset class and a growing opportunity. Despite institutions' under-allocation to infrastructure, 2023 was the most challenging year for private infrastructure fundraising since 2015, according to the second annual Institutional Infrastructure Allocations Monitor released on June 18, 2024, by Hodes Weill & Associates and Cornell University's Program in Infrastructure Policy. However, considering growing target allocations to infrastructure and positive investor sentiment, the pace of annual investments is expected to accelerate over the medium-term.¹⁴ Infrastructure portfolios continue to demonstrate resilient revenues and offer investors strong risk-adjusted returns, despite general market volatility.

The primary conclusion of the 2024 Infrastructure Allocations Monitor is that institutions are poised to allocate significant capital to infrastructure investments as global transaction activity rebounds. The weight of this capital can be expected to have broad implications for the industry with respect to fundraising, lending activity, and asset valuations. Although some third-party research suggests infrastructure markets may be overvalued, the combination of abundant capital and liquidity, global Government support, and anticipated rate cuts, along with the benefit of the asset class' "inflation participation," can be expected to sustain current valuation and financing metrics, including discount rates. This perspective does not downplay the risks of prolonged high interest rates or slow economic growth, but rather highlights a crucial consideration for industry participants.

Conclusion

These legislative acts are to be applauded given the needs of our country to strengthen and update our infrastructure. The funding commitments through the BIL, the CHIPS and Science Act, and the Inflation Reduction Act, are expected to achieve those goals and contribute to future proofing the resilience of our various infrastructure networks. I believe that with some changes in permitting policies, the incorporation of new technologies and innovative products, and the integration of public-private partnerships, the various levels of Government can leverage this funding to benefit future generations for decades to come.

¹⁴ <https://www.hodesweill.com/single-post/2024-institutional-infrastructure-allocations-monitor>, June 20, 2024.

**RESPONSES TO WRITTEN QUESTIONS OF SENATOR SCOTT
FROM CHRISTOPHER A. COES**

Q.1. Mr. Coes, we did not have the chance to exchange questions during the hearing, nor did I have the chance to address my concerns with the Department of Transportation's (DOT's) administration and implementation of the discretionary grant programs included in the Infrastructure Investment and Jobs Act (IIJA). I am not alone in these concerns. In fact, the Government Accountability Office (GAO) conducted multiple reports, finding DOT's and the Federal Transit Administration's (FTA's) administration of discretionary grant programs to be inconsistent and unreliable.¹ These shortcomings stem from DOT's failure to consistently provide documentation on its evaluation processes and for failing to fully align with Federal regulations and DOT guidance.² Please detail the steps you are taking to fix the problems cited by GAO.

A.1. Response not received in time for publication.

Q.2. In 2020, GAO recommended the FTA Administrator should take steps to provide information to Congress and project recipients to better clarify how FTA applies the methods and factors it considers when performing its review of recipient's, or sponsor's, projects. Four years later, neither the DOT nor FTA anticipate acting on this suggestion.³ Why are you ignoring this recommendation?

A.2. Response not received in time for publication.

Q.3. In the same report, GAO recommended that FTA take additional steps to ensure its staff communicates the reasons why a project is not advancing to sponsors in a timely manner and in writing upon request. Again, neither DOT nor FTA concur with this recommendation, instead claiming they are already performing these kinds of measures. Your standards do not seem to be working if GAO remains concerned with the lack of transparency within your agency.

Why are DOT and FTA unable to abide by this commonsense recommendation?

You claim to be practicing these suggestions, why have you not taken simple steps to update them per GAO's recommendation?

A.3. Response not received in time for publication.

Q.4. The IIJA carved out \$7.5 billion from Fiscal Year 2022 to 2026 to build 500,000 public charging stations for electric vehicles across the country. The National Electric Vehicle Infrastructure (NEVI) program and the Charging and Fueling Infrastructure (CFI) program were authorized by Congress 3 years ago, yet there are only 8 active charging stations completed in six U.S. States.⁴

¹U.S. Gov't Accountability Office, GAO-23-106378, "Discretionary Transportation Grants: DOT Should Improve Transparency in the Infrastructure for Rebuilding America Program" (2024).

²U.S. Gov't Accountability Office, GAO-24-106280, "Discretionary Grants: DOT Should Improve Clarity and Transparency of Program Management" (2024).

³U.S. Gov't Accountability Office, GAO-20-512, "Capital Investments Grants Program: FTA Should Improve the Effectiveness and Transparency of Its Reviews" (2020).

⁴Joe Lancaster, "\$7.5 Billion in Government Cash Only Built 8 E.V. Charges in 2.5 years", *Reason* (August 7, 2024), (reason.com).

Why have only 8 of the 500,000 required charging stations been completed?

What is the reason for the delay?

How many NEVI/CFI funded charging stations can we expect to be completed in the next 6 months? One year? Two years?

Please provide a detailed breakdown of the total costs for each completed charging station using NEVI/CFI grants.

Do you expect the remaining charging stations to entail the same costs?

A.4. Response not received in time for publication.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR WARNOCK FROM CHRISTOPHER A. COES

Q.1. As you discuss in your testimony, investments in our Nation's infrastructure can be measured by how they transform and uplift communities. The historic investment in our Nation's infrastructure through the Bipartisan Infrastructure Law will undoubtedly help uplift communities by reconnecting those divided by legacy infrastructure, creating new mobility options through investments in transit and passenger rail, and much more. But the Bipartisan Infrastructure Law also has the potential to uplift communities by creating new wealth and opportunity by supporting the next generation of small and minority contractors. Having a more diverse pool of contractors in the bidding process for infrastructure projects can promote innovation, bring down project costs, and ensure that Federal funding is distributed more equitably throughout communities.

Why is it important for small and minority contractors to be a part of the rebuilding of the Nation's infrastructure?

A.1. Response not received in time for publication.

Q.2. What more can Congress do to support small and minority contractors' access to this historic infrastructure funding?

A.2. Response not received in time for publication.

Q.3. Without reliable access to transportation, many communities, especially low-income and rural areas with limited mobility options, can face limited opportunities for economic growth.¹ The Department of Transportation's Areas of Persistent Poverty Program helps tackle this problem by supporting both urban and rural recipients in Areas of Persistent Poverty or Historically Disadvantaged Communities for activities including the planning, engineering, or development of technical or financing plans for improved transit services, new transit routes, and engineering for transit facilities and improvements to existing facilities.² Georgia has already received \$880,000 under this program to support service in

¹Paul P. Skoutelas, "Neglecting Aging Public Transportation Hurts Our Economy", *Politico* (Accessed August 5, 2024), <https://www.politico.com/sponsor-content/2018/06/when-public-transit#>.

²"Areas of Persistent Poverty Program", United States Department of Transportation (Accessed August 5, 2024), <https://www.transit.dot.gov/grant-programs/areas-persistent-poverty-program>.

Augusta and Savannah and to develop a regional transit plan in rural South Georgia.³

How do investments in planning, engineering, or the development of technical or financing plans for projects eligible under Chapter 53 of Title 49 help support new or existing transit service in rural communities?

A.3. Response not received in time for publication.

Q.4. The Metropolitan Atlanta Transit Authority (MARTA) has submitted an application for Multimodal Project Discretionary Grant (MPDG) funding to support its Bus Rapid Transit (BRT) project along GA400. According to MARTA, this project incorporates transit-oriented-development (TOD) planning at each stop along this busy workforce corridor. In a city like Atlanta that is simultaneously dense and sprawling, TOD presents a unique opportunity to reduce housing and transportation costs for low-income communities, reduce emissions, spark economic development, and help create that all-important sense of community.

As the Department of Transportation reviews applications for MPDG funding, will you commit to giving full and fair consideration to MARTA's GA400 BRT project, including its TOD components?

A.4. Response not received in time for publication.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR FETTERMAN FROM CHRISTOPHER A. COES

Q.1. The President's Budget included language regarding flexibility for transit agencies to use Federal dollars for operating costs. Many agencies across Pennsylvania are facing a "fiscal cliff" or will hit one in the next few years, which will lead to service reductions that will make travel more difficult for Pennsylvanians. How could Federal operating funding prevent near-term cuts to service and improve long-term outcomes for transit employees, riders, and the broader communities these agencies serve?

What are the economic impacts of widespread service cuts to transit service? How will those cuts affect rural communities and those served by smaller agencies?

A.1. Response not received in time for publication.

Q.2. What is the average wait time for Federal Transit Administration (FTA) Emergency Relief dollars to be disbursed after a disaster? What has been the longest period between disaster and delivery of FTA ER funding?

How does this compare to the delivery timeline for FHWA ER funding?

A.2. Response not received in time for publication.

Q.3. PennDOT is studying a number of possible alternatives to improve safety on the Roosevelt Boulevard corridor, including a Roo-

³"Areas of Persistent Poverty Program FY 2021 Selected Projects", United States Department of Transportation (September 7, 2023), <https://www.transit.dot.gov/funding/grants/grant-programs/areas-persistent-poverty-program-fy2021-selected-projects>; "Fiscal Year 2023 Areas of Persistent Poverty (AoPP) Project Selections", United States Department of Transportation (July 20, 2023), <https://www.transit.dot.gov/funding/grants/grant-programs/fiscal-year-2023-areas-persistent-poverty-aopp-project-selections>.

sevelt Boulevard Subway Line (an extension of SEPTA's Broad Street Line). If a transit proposal for the Boulevard is submitted for funding through the Capital Investments Grants program, would FTA incorporate transit-oriented development or land use potential into considerations used to evaluate potential ridership?

A.3. Response not received in time for publication.

Q.4. What guidance has DOT provided for participants in the Corridor ID program regarding Federal opportunities for transit-oriented development or other investments in the neighborhoods around potential station sites?

A.4. Response not received in time for publication.

Q.5. I was very glad to see the Department recognize the importance of the Schuylkill River Passenger Rail Authority (SRPRA) project for the Reading-Philadelphia-New York Corridor by selecting it for the Corridor Identification and Development Program at the Federal Railroad Administration. Two years ago, SRPRA was formed by Berks, Chester, and Montgomery counties to help restore vital rail service for Pennsylvanians who were left behind commuter rail line closures in the 1980s. Please provide an update on the status of this project, including anticipated timelines for preparation and completion of the Service Development Plan.

A.5. Response not received in time for publication.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR WARNOCK FROM MICHAEL KNISLEY

Q.1. As you discuss in your testimony, investments in our Nation's infrastructure can be measured by how they transform and uplift communities.¹ The historic investment in our Nation's infrastructure through the Bipartisan Infrastructure Law will undoubtedly help uplift communities by reconnecting those divided by legacy infrastructure, creating new mobility options through investments in transit and passenger rail, and much more. But the Bipartisan Infrastructure Law also has the potential to uplift communities by creating new wealth and opportunity by supporting the next generation of small and minority contractors. Having a more diverse pool of contractors in the bidding process for infrastructure projects can promote innovation, bring down project costs, and ensure that Federal funding is distributed more equitably throughout communities.²

Why is it important for small and minority contractors to be a part of the rebuilding of the Nation's infrastructure?

A.1. It is critical for small as well as minority contractors to participate in the rebuilding of the Nations infrastructure as many times these contractors are at a distinct disadvantage due to their

¹ Statement of Mr. Michael Knisley, Executive Secretary-Treasurer, Ohio State Building and Construction Trades Council, <https://www.banking.senate.gov/imo/media/doc/kinsley-testimony-7-31-24.pdf> at p. 1 ("Imagine that—lifelong, family-sustaining construction careers within commuting distance of Ohio's counties. This type of investment has the potential to deliver lasting economic recovery in Ohio's struggling towns.")

² "Opportunities To Increase Inclusion of Small Businesses in Government Contracting", United States Small Business Administration (Accessed August 6, 2024), <https://files.hudexchange.info/resources/documents/Small-Contractors-Initiative-Increasing-Inclusion-of-Small-Businesses.pdf>.

relatively smaller size to execute the larger infrastructure projects. The disadvantages also include the requirements of performance, surety and fringe benefit bonds that are typical on any construction project but can be difficult to obtain due to the sheer size of scope for the project itself.

Contractors that make up this demographic group are the backbone of the construction industry and unfortunately due to the scale of most Federal projects as well as the historic nature of mammoth general contractors that dominate this space it makes it almost impossible for smaller and/or minority contractors to work in this environment.

Q.2. What more can Congress do to support small and minority contractors' access to this historic infrastructure funding?

A.2. A number of things could be done to give the smaller/minority contractor an opportunity to participate in the larger infrastructure projects as follows:

A. Split up the project itself into smaller scope that would allow the contractor to participate at the current business level they are currently operating at.

B. Codify in the project bid scope that the General Contractor will utilize smaller/minority contractors for the smaller codified scope of work.

C. Have the Federal Government create or coordinate a national pool of financial institutions that would specialize in offering business loans at a slightly smaller discount rate to smaller and/or minority contractors for specific line items like bonding, insurance and other construction specific related items that typically hold back these contractors.

D. Encourage the surety/bonding institutions to offer a slightly smaller discount on the respective bonds required. There might be some value in for the Federal Government to absorb some of the risk associated with these programs.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR SCOTT FROM R. RICHARD GEDDES

Q.1. Dr. Geddes, thank you for your testimony before the Senate Banking Committee. As promised, I am following up on Public-Private Partnerships (P3s). P3s are crucial for infrastructure development as they have been proven to reduce Government spending, extend long-term maintenance, and put a portion of the risk assessment on the private sector.

Please explain in detail the benefits P3s can have on infrastructure projects.

A.1. As explained in my written testimony, P3s can generate numerous benefits for infrastructure projects. Those benefits can be grouped into several categories.

Better life-cycle asset maintenance. The core element of a P3 is the bundling together of key project elements, particularly design and construction (design-build) combined with operation and maintenance (O&M) over the project's operational life. This includes design-build-operate (DBO) contracts, design-build-operate-maintain (DBOM) contracts, and design-build-finance-operate-maintain

(DBFOM) contracts, among others. The bundling aspect of P3 ensures that public-sector asset owners are contractually bound to maintain the asset in a state of good repair during its projected life cycle. This aspect of P3 will help the United States address one of its most pressing infrastructure policy problems, which is a massive backlog of deferred maintenance. Indeed, bundled P3s are one of the only reliable policy solutions to the endemic problem of deferred maintenance. Although P3 projects may have larger up-front costs, the bundling aspect of P3 often results in lower life-cycle costs for the project because it avoids the large, costly renovations that generally result from deferred maintenance.

Risk transfer to private investors. In general, P3s do not reduce the overall amount of risk in delivering an infrastructure project. When done properly, however, P3s can have important riskmanagement benefits because they transfer some risks to private partners who are often better positioned to manage them. Although private partners will “charge” public asset owners for the service of bearing project risk, the overall social cost of risk bearing will be lower if it is better managed by the private partner. This results in long-term operational efficiency.

Faster project delivery and improved service quality. Because P3s can place the risk of both poor project quality and slow delivery on the private partner, they often include incentives to deliver projects both on time and of high quality. There is strong empirical evidence for this conclusion. In some cases, there are bonus incentives for delivering the project ahead of schedule. As a summary of a recent book on P3 (Verweij, S., van Meerkerk, I., and Casady, C. (Eds.). (2022). ‘Assessing the Performance Advantage of Public-Private Partnerships’. Cheltenham, U.K.: Edward Elgar Publishing. Retrieved Aug 30, 2024, <https://www.elgaronline.com/edcollbook/book/9781800889200/9781800889200.xm>) states, “This comprehensive assessment produces several conclusions, but ultimately determines that evidence for a cost performance advantage remains mixed, while PPPs are proven to clearly outperform traditional alternatives in terms of time and service quality.”

Bringing innovation to infrastructure projects. Civil infrastructure construction and maintenance is notable for its lack of productivity improvement in recent decades relative to many other major economic sectors. One reason for this is slow adoption of new technologies. P3s can help address this problem. As explained in my written testimony, a P3 contract that is “future proofed” is one that places the risk of not adopting the latest technologies on the private partner, rather than on the public asset owner. This contractual provision puts both parties “on the lookout” for the latest technological advances that may improve the quality of project delivery.

Impact on the economy and on quality of life. Infrastructure supports economic development. Robust infrastructure is essential for disaster preparedness and the ability to respond to potential and real disasters. Well-designed and maintained infrastructure can withstand natural disasters, such as earthquakes, floods and hurricanes, minimizing damage and aiding in recovery.

Q.2. Given your extensive work in this area, what solutions can Congress take to support the use of P3s?

A.2. There are several important steps that Congress can take to support the use of P3s in the United States. I describe a few below.

Eliminate the cap on private activity bonds (PABs). PABs are a way of leveling the “cost-of-capital playing field” between tax-exempt municipal bonds and the privately issued debt often used to finance infrastructure projects. They are a type of low-cost financing that allows the issuance of tax-free municipal bonds by private entities such as the special-purpose vehicles that deliver major infrastructure projects. They are used for a variety of transportation projects, including highways, passenger rail, surface freight transfer facilities, high-speed commuter and passenger rail lines, urban transit, new express/managed lanes, and bridge replacements.

PABs were originally viewed as experimental. The Infrastructure Investment and Jobs Act (IIJA) of 2021 increased the cap on PABs for qualified highway and surface freight transfer facility projects from \$15 billion to \$30 billion. Recognizing that there is no cap on the total amount of tax-exempt municipal bond issuance, and that no other country has this type of tax structure that favors publicly issued debt, it is now appropriate for Congress to not only raise, but to eliminate the cap on the issuance of PABs. This would greatly facilitate the market for P3s in the United States, send a signal that private investment is welcome, and would contribute to economic development and job creation.

Improve public-sector P3 contracting capacity. Because P3s are still somewhat new in the United States compared to many other developed countries, public-sector asset owners are often not experienced with this project-delivery method. P3s can be vastly different from the traditional delivery that many public-sector officials are used to. Public-sector officials often need to become more sophisticated to do P3s properly. They can do this by paying for excellent legal and financial advice as they move forward with a P3, which is often costly. They can also do this by creating in-house P3 expertise through the establishment of a “P3 unit,” like the State of Virginia’s Office of Public-Private Partnerships. A Public-Private Partnership (PPP) unit is an organization that is responsible for the promotion, facilitation, and assessment of PPPs in a given area. PPP units can be Government agencies or semi-independent organizations that are supported by the Government, either fully or partially. Congress can facilitate use of P3s in the United States through the encouragement of both paying for high-quality outside expertise and the creation of P3 units.

For more information on PPP Units, see, *Private Participation in U.S. Infrastructure: The Role of PPP Units*, by R. Richard Geddes and Carter B. Casady (American Enterprise Institute) October 26, 2016, <https://www.aei.org/>.

Facilitate the creation of more facility-specific revenue sources. Importantly, P3s can be done on infrastructure facilities that do not have a dedicated user-fee revenue source. The main way of doing so is via an “availability payment” approach where the private partner is paid either on the basis of performance or on the basis of measured facility use. P3s work better, however, in cases where there is a user-fee sources of revenue which goes directly to

the private partner.¹ Therefore, one of the main ways that Congress could facilitate greater use of P3 in the United States is to help create facility-specific dedicated revenue sources.

One major example of potential user-fee revenue is tolling the existing Interstate highway system instead of relying on fossil-fuel taxes. Revenue from fossil fuel taxes is unsustainable and declining, primarily due to the increasing number of electric vehicles and more fuel-efficient cars on the road, which means people are buying less gas, thus generating less tax revenue from gas purchases. Moreover, taxes on gasoline and diesel fuel are not indexed to inflation. An obvious solution is per-mile tolling of Interstate highway use, since toll revenue is independent of the fuel used to power the vehicle.

Congress moved in this direction in the TEA-21 Act of 1998, which created a pilot program under which a State may collect tolls on one Interstate highway for the purpose of reconstructing or rehabilitating a highway that could not otherwise be adequately maintained or functionally improved without the collection of tolls. However, only three States were allowed to be included in the pilot program. Although that was 26 years ago, both tolling technology and the understanding of tolling's effectiveness have improved greatly. By clearing the way for expanded use of tolling on existing interstate highways, Congress could greatly increase P3 use in the United States. This should be included in any future highway reauthorization bill.

Q.3. Are you aware of any shortcomings related to P3s?

If yes, please explain whether these shortcomings can be addressed through legislation.

A.3. Rather than “shortcomings” I would say that P3s have certain costs. One important cost of the P3 method is the so-called “transaction costs.” These are the costs associated with procuring an infrastructure facility via P3 versus a more traditional method, such as design-bid-build combined with tax-exempt municipal bond financing. P3s are usually more complex and thus more costly to procure. There is also the risk that public-sector owners are not familiar with P3s and thus agree to unfavorable terms. As noted previously, those issues can be addressed through the retention of top-notch expertise, as well as by the creation of PPP Units. Congress can help address this by supporting both avenues for improved public-sector capacity.

Second, due to their often-higher transaction and contracting costs, P3s may not be appropriate for smaller projects. That is, it does not make sense to incur the higher transaction costs associated with P3s if the total size of the project is small. Congress can however help address this problem by encouraging public-sector asset owners to combine or “bundle” many smaller projects into one large P3. This will not only spread out the (fixed) P3 transaction costs over a larger project but is also likely to attract more U.S.

¹ For an analysis of the differences between availability payment P3s versus real-toll P3s, see Robert Poole, *Availability Payment or Revenue-Risk P3 Concessions? Pros and Cons for Highway Infrastructure*, Reason Foundation Policy Study No. 458 (November 2017), available at: <https://reason.org/wp-content/uploads/files/infrastructure-availability-payment-revenue-risk-concessions.pdf>.

and international bidders, which makes procurement more competitive.

An example of this type of bundling is the Pennsylvania Rapid Bridge Replacement Program. That Project is a P3 that replaced 558 structurally deficient bridges in Pennsylvania. The project is the largest roadway project in the State's history and the first of its kind in the United States to bundle the replacement of hundreds of bridges in a single P3 agreement. Congress can explore tools to encourage States to undertake more similar bundling projects.

Q.4. P3s are used by the Federal Government to finance infrastructure projects as well as to manage real property.² Are you aware of other positive uses of P3s across other Government sectors? If so, are there lessons we can learn and apply from other types of P3s as well?

A.4. To provide a broad answer, P3s have been used in such diverse activities as funding and building transportation infrastructure like toll roads, operating public facilities like airports through private concessions, developing new technologies through research collaborations with private companies, and utilizing private companies to manage certain aspects of health care delivery, particularly in underserved areas. More specific examples include leasing out highway operations to private companies in exchange for toll revenue, as was done on the Indiana Toll Road P3. In energy there are examples of partnering with private companies to develop renewable energy sources or improve energy grid infrastructure. In health care there are examples of collaborating with private health care providers to deliver services in rural areas or manage specific health care programs. There are also examples in research and development (R&D) of funding research projects in collaboration with private companies to develop new technologies, such as in the pharmaceutical or biotechnology sectors. In community development there are examples of P3s that use private investment to revitalize urban areas through projects like housing development or infrastructure improvements. P3s in public-service accommodations include school buildings, prisons, student dormitories, community centers, and entertainment or sports facilities.

Although P3 use is more extensive in other countries, there are important specific examples in the United States. Regarding school districts, there is a recent project by Miami-Dade County Public Schools (MDCPS), a project in Lee County, Florida, and another school P3 in Maryland. These projects illustrate how P3s can be used to deliver new educational facilities.

P3 have also been used in the water sector in the United States. For example, the city of Rialto, California, contracted with Veolia to provide operation and maintenance services to the city's wastewater treatment plant and collection system. Similarly, Wilmington, Delaware, used a P3 to help that city provide more than \$1.5 million in annual operating savings at its wastewater treatment plant.

²Jefreda Brown; Melody Kazel, "Public-Private Partnerships (PPPs) Definition, How They Work, and Examples, Investopedia", (August 7 2024), <https://www.investopedia.com/terms/p/public-private-partnerships.asp>.

Regarding general lessons that can be learned and applied from other P3s, the main lessons are ensuring that the public-sector project sponsor has adequate expertise and knowledge to properly execute and monitor a P3. This includes having the capacity to enforce the P3 contract over its entire life cycle. The second lesson is that the relatively high transaction costs of using the P3 approach is only appropriate where the expected benefits exceed those costs. This is more likely to be true for larger projects or where a number of smaller projects are bundled together.

Q.5. During the hearing, we had the opportunity to discuss the unduly burdensome Federal regulations, and the cumbersome red tape experienced by many due to the implementation of the National Environmental Protection Act (NEPA) of 1970. More than 50 years after its enactment, NEPA regulations have made little progress to efficiently take environmental concerns into consideration when developing infrastructure, and instead have delayed projects from breaking ground, keeping local communities at a standstill. What is even more concerning, is that the burdensome process has been recognized—and rectified for some, but not for all through streamlined permitting processes for large-scale infrastructure projects.

How do programs that prioritize “green” projects over traditional infrastructure projects, impact State and local communities?

A.5. Compared to other countries, the United States is notorious for slow and costly project delivery. One well-recognized cause is the cumbersome environmental process as required under the National Environmental Policy Act of 1970, or NEPA. In a recent paper with two coauthors, I show that a typical environmental impact statement (or EIS) under NEPA now takes about 4½ years and is over 600 pages long.³ Some EISs take over a decade to complete. These cumbersome processes often discourage potential private partners from bidding on projects. A White House study in 2020 found that the NEPA permitting process takes between 3.5 and 6 years to complete, on average.

Although a detailed discussion of NEPA reform is outside the scope of this document, two recent studies point the way for important reforms. Those studies are Robert Poole, Jr. “Reforming Environmental Litigation”, Reason Foundation, June 26, 2024 (available at <https://reason.org/policy-brief/reforming-environmental-litigation/>) and Nikki Chiappa, “Understanding NEPA Litigation: A Systematic Review of Recent NEPA-Related Appellate Court Cases”, (Washington, DC: Breakthrough Institute), July 11, 2024 (available at: <https://thebreakthrough.org/issues/energy/understanding-nepa-litigation>).

Although many States have resources assigned to permitting-related issues, only some have dedicated offices sufficiently resourced and empowered to address the known issues. Today’s permitting challenges will be exacerbated by the accelerated pace of infrastructure investment over the next decade. Now, more than ever,

³See Michael Bennon, Daniel Hormaza, and R. Richard Geddes, 2024. “A Hazard Analysis of Federal Permitting Under the National Environmental Policy Act of 1970”, *Journal of Regulatory Economics*, Springer, vol. 65(1), pp. 154–183, June.

there is an urgency to establish clear guidance, enabling clear communication and providing access to consistent information.