

**FUNDING AND FINANCING OPTIONS TO  
BOLSTER AMERICAN INFRASTRUCTURE**

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**HEARING**

BEFORE THE

**COMMITTEE ON FINANCE  
UNITED STATES SENATE**

ONE HUNDRED SEVENTEENTH CONGRESS

FIRST SESSION

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MAY 18, 2021  
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# FUNDING AND FINANCING OPTIONS TO BOLSTER AMERICAN INFRASTRUCTURE

TUESDAY, MAY 18, 2021

U.S. SENATE,  
COMMITTEE ON FINANCE,  
*Washington, DC.*

The hearing was convened, pursuant to notice, at 10 a.m., via Webex, in the Dirksen Senate Office Building, Hon. Ron Wyden (chairman of the committee) presiding.

Present: Senators Stabenow, Cantwell, Carper, Brown, Bennet, Casey, Warner, Whitehouse, Hassan, Cortez Masto, Warren, Crapo, Grassley, Cornyn, Thune, Portman, Cassidy, Lankford, Daines, Young, and Sasse.

Also present: Democratic staff: Robert Andres, Professional Staff Member; Joshua Sheinkman, Staff Director; and Tiffany Smith, Chief Tax Counsel. Republican staff: Jen Deci, Senior Counsel; and Gregg Richard, Staff Director.

## **OPENING STATEMENT OF HON. RON WYDEN, A U.S. SENATOR FROM OREGON, CHAIRMAN, COMMITTEE ON FINANCE**

The CHAIRMAN. The Senate Finance Committee will come to order. This is going to be a busy week. Today we are going to look at options for financing infrastructure, and then later in the week we will be examining the lessons we have learned from the pandemic. I look forward to working with all colleagues and pursuing these issues in a bipartisan way.

With respect to infrastructure, I think it would be fair to say that right now in Washington, DC, it would be hard to get members of Congress to agree on the proper way to butter toast. But I think everybody understands the importance of upgrading infrastructure. That is because it is widely understood, you cannot have big league economic growth in America with little league infrastructure.

The sorry state of our infrastructure right now is a danger to individuals. For example, you cannot cross the Mississippi River on a bridge that is cracked in half. It is also a recipe for national decline, and the United States continues to fall behind China and other countries on broadband, on roads, on highways, on ports, on rail, airports, housing, and in other areas.

Obviously—and this is why we are holding the hearing—the tough question with respect to infrastructure is how you go about paying for it. In my judgment, there is an obvious answer if you say that it is essential to pay for infrastructure in a fair way.

It is long past time for mega-corporations to pay a fair share for building and repairing roads and bridges. They drive trucks across

America's roads and highways. They send products to market through our airports and our waterways. They rely on our power grids and communications systems. And it seems to me to be just basic fairness that they ought to pitch in for the infrastructure that makes our country an economic superpower.

Now the hard evidence shows that the mega-corporations—and this is based on the fact that the Finance Democratic staff has been out crunching the numbers—have never contributed less to Federal revenues in modern American history than they are doing now.

Data from the independent Congressional Budget Office shows that in the aftermath of the Trump tax law, corporate income tax revenue is down nearly 40 percent from the 21st-century average. Many of the mega-corporations, the largest corporations, are paying nothing. That is it—zero.

News reports out just this week said that mega-corporations flush with cash are also gearing up for a new round of stock buybacks that overwhelmingly benefit the wealthy shareholders. It is not any kind of cash crunch that has kept major corporations from pitching in here.

Asking the largest of the mega-corporations in America to pitch in a fair share is not going to sacrifice America's ability to compete in tough global markets. "Competitive" does not mean that the biggest corporations should pay zero tax. Paying for infrastructure and creating high-wage, high-skill jobs are not mutually exclusive.

Now, there is lots of talk about how it has to be user fees that pay for infrastructure. I will say the suggestion is, somehow middle-class workers are supposed to pay what mega-corporations will not. Middle-class budgets are already very hard-pressed, and if you do not think Americans keep track of the cost of driving, you have not been watching the TV news much of the last week.

The fact is, the infrastructure bill has been growing for decades due to Congress's negligence and the failure of mega-corporations to pitch in fairly. And when you say it is going to be fair, it means allowing someone like myself, honored to represent Oregon in the Senate, telling a rancher in eastern Oregon or a home health aide on the coast, that they are not going to carry the whole burden; they are not going to make up the shortfall.

Working people driving long distances are willing to pay their fair share. They tell that to us in our community meetings. I just came off 13 of them in Oregon. They have been doing so every time they pull up to the pump. What they do not want to do is support immunizing mega-corporations from paying anything at all.

Prior to 2017, there was bipartisan interest in bringing back cash trapped overseas as the best way to fund a major infrastructure bill. A number of us on a bipartisan basis said that to then-President Trump. Study after study showed that corporations had trillions of dollars parked around the world.

Senators had repatriation bills ready to go. There was bipartisan interest in that idea on the Senate Finance Committee. In 2017, however, Donald Trump and Republicans went in a different direction and plowed that cash into even bigger corporate tax subsidies as part of the Trump tax law. That was a major lost opportunity, and the infrastructure tab has only grown in the years since then.

So now, first and foremost, we ought to be looking at smart financing tools to help draw private dollars off the sidelines and into infrastructure. It worked a decade ago with Build America Bonds. And just in the interest of brevity, let me tell colleagues, when I proposed for the first time these Build America Bonds, it was completely bipartisan.

Senator Wicker was a leading cosponsor of it. Senator Thune was a leading cosponsor. Senator Collins was a leading cosponsor. Senator Klobuchar was deeply involved. And in the Finance Committee, the last night of the Recovery Act, I was asked what might happen. I said, "Let me low-ball it. It's only going to last a year and a half." Government had never bonded before. I said we might sell \$3 billion to \$5 billion worth of Build America Bonds.

America, in a year and a half, sold \$182 billion worth of Build America Bonds, an example of a public/private partnership coming together. This is an approach that Congress has to return to, because it works.

I want to thank our witnesses for joining the committee. What we are going to do now is, we are going to hear from Senator Crapo. We understand how urgent this is. That is why the committee is having this hearing. Senator Crapo and I thought it was so important to air all of the options. We will hear from Senator Crapo, and then we will have Senator Shaheen do an introduction.

Senator Crapo?

[The prepared statement of Chairman Wyden appears in the appendix.]

**OPENING STATEMENT OF HON. MIKE CRAPO,  
A U.S. SENATOR FROM IDAHO**

Senator CRAPO. Thank you very much, Mr. Chairman. Thank you for holding this timely hearing on funding and financing options for our Nation's infrastructure.

Infrastructure investment has traditionally been bipartisan and accomplished through regular order. I am encouraged by the productive meeting that I had last week with President Biden and some of my Republican colleagues in the Senate about the need to modernize and expand our transportation system and broadband in a bipartisan manner.

The framework Republican Senators discussed with President Biden included roads and bridges, transit, rail, airports, drinking water and wastewater, and port and inland waterways, as well as water storage and broadband infrastructure.

Consideration of offsetting the cost of infrastructure with a corporate tax rate increase, or increases in international taxes, especially coming out of the largest negative shock to the economy on record, is counterproductive and a nonstarter on my side of the aisle.

With the FAST Act extension expiring at the end of September, reauthorization of our surface transportation programs should be the basis of any infrastructure conversations.

As our witnesses will discuss, Congress must provide long-term stability and certainty for these programs so that transportation agencies, cities, counties, and States across the country can make responsible long-term transportation planning decisions.

For the last few transportation authorizations, Congress has made the decision to spend more than the receipts going into the highway trust fund. In order to advance a comprehensive, long-term reauthorization bill, it is important that we do so in a fiscally responsible manner. There is no silver bullet for how to pay for transportation infrastructure, but historically it has been paid for by user fees, which makes sense.

For many years, the users of transportation infrastructure paid fees for that use through the gas and diesel taxes, which were deposited into a highway trust fund and then distributed to pay for our Nation's roads, bridges, and transit systems.

There have been many changes to the transportation landscape since Congress last raised the gas tax in 1993, such as increased fuel efficiency and a significant increase in electric vehicles, or EVs, on the road.

With this evolution, Congress needs to ensure that all users of the transportation infrastructure are paying into the highway trust fund. To make up the projected \$195-billion 10-year shortfall of the highway trust fund, Congress needs to think creatively of ways to ensure that EVs are paying their fair share.

If we are able to identify a top-line spending number and go through a bipartisan FAST Act reauthorization process, I am ready to work with my colleagues on the other side of the aisle to do the hard work of addressing the solvency of the highway trust fund. With that, the United States will have the funding we need to maintain and modernize our transportation system to meet the rapidly evolving landscape of today and in the future.

To maximize use of taxpayer dollars, we should consider proposals to attract private capital for infrastructure projects, repurpose unused Federal funds, and improve and expand upon existing infrastructure loan programs.

I agree with the comments that our chairman just made about the Build America Bonds. They can be a significant way of incentivizing private capital into our infrastructure. We should consider how public/private partnerships can fit into our comprehensive infrastructure funding, and our financing.

The Transportation Infrastructure Finance and Innovation Act, or TIFIA as we call it, the Railroad Rehabilitation and Improvement Financing Act, and the Water Infrastructure Financing and Innovation Act are good examples of financing tools that can leverage Federal resources, and we should consider ways those programs should be improved and expanded.

Private Activity Bonds for transportation projects have proven so attractive that the program is oversubscribed. And with the \$15-billion cap having been met, and additional applications outstanding, we should address it. We need to consider how PABs and other bond programs can be used to help States and localities improve and move their infrastructure projects forward.

There are hundreds of billions of dollars in unspent funds from COVID relief packages. Those funds should be put to work and repurposed to fund infrastructure projects.

Mr. Chairman, the word "infrastructure" itself has become somewhat of a fluid term lately. As this hearing demonstrates, there is bipartisan support for finding long-term funding and financing so-



lutions for transportation infrastructure, as well as increasing access to broadband connections, particularly in rural America.

Americans rely heavily upon broadband technology for business, government, education, and personal activities. Efforts have been underway for some time to address a digital divide in broadband deployment between rural and urban or suburban areas to ensure communities, regardless of size, can access technological advancements. The pandemic magnified the importance of expansive and reliable broadband technology, as so many Americans found themselves working and learning from home.

Mr. Chairman, thank you again for holding this hearing. Let's get to work in a bipartisan way to maintain, modernize, and expand America's infrastructure. I thank our witnesses today for their willingness to participate in this hearing.

[The prepared statement of Senator Crapo appears in the appendix.]

The CHAIRMAN. Thank you very much, Senator Crapo. And I would just like to note for our colleagues, we are only 19 minutes into this morning's hearing, and we have already had an outbreak of major bipartisanship around Build America Bonds. And I want to thank Senator Crapo for his thoughtfulness.

Now I also want to render an apology to Senator Hassan, because Senator Hassan, so that the record is clear, is now going to introduce one of her thoughtful guests, who is Ms. Sheehan.

So, you New Hampshireites all stick together, apparently even with respect to your name. Senator Hassan, we welcome you. Please make the introductory comments you desire.

Senator HASSAN. Well, thank you so much, Senator Wyden. Thank you for being such an effective chair of our committee, and, Ranking Member Crapo, thank you as well for your work and for holding today's hearing on how we can invest in American infrastructure.

And I would like to welcome a Granite Stater who is an expert on this topic of today's hearing. And she is Victoria Sheehan from Nashua, NH, and she has served as the Commissioner of the New Hampshire Department of Transportation since 2015.

I have seen firsthand her commitment to providing safe and efficient transportation systems throughout our State. When I was Governor, I appointed Commissioner Sheehan and partnered with her to move forward a number of infrastructure improvement projects.

Commissioner Sheehan has since been reappointed to her post by Governor Sununu. Commissioner Sheehan has also taken her expertise to the American Association of State Highway and Transportation Officials, where she currently serves as president. And she is only the second woman in the Association's history to serve in this role.

An engineer by training, Commissioner Sheehan has extensive experience in transportation management, and she will bring an important perspective to today's hearing.

Commissioner, thank you for being here today and for all of your work to help keep Granite Staters safe, and keep our economy moving. I am looking forward to hearing from you today.

Thank you, Mr. Chairman.

The CHAIRMAN. The first witness will be Dr. Joseph Kile, Director of Microeconomic Analysis at the Congressional Budget Office.

As we all heard, Senator Hassan has sought to have Ms. Victoria Sheehan, who is president of the American Association of State Highway and Transportation Officials, and Commissioner of the New Hampshire Department of Transportation, here. We are glad that Senator Hassan has arranged for Ms. Sheehan to be here.

Our third witness will be Ms. Heather Buch, subcommittee chair for the National Association of Counties' Transportation Steering Committee. She is a County Commissioner for Lane County, OR. I know Ms. Buch well. Nobody works harder. She gives public service a good name every single day, and we are so glad that she is here from Lane County.

Our final witness will be Ms. Shirley Bloomfield. She is chief executive officer of the Rural Broadband Association.

We will make your formal remarks a part of the hearing record in their entirety, and why don't we begin first with Dr. Joseph Kile of CBO.

**STATEMENT OF JOSEPH KILE, Ph.D., DIRECTOR OF MICRO-ECONOMIC ANALYSIS, CONGRESSIONAL BUDGET OFFICE, WASHINGTON, DC**

Dr. KILE. Thank you, Chairman Wyden, and good morning to you and to Ranking Member Crapo. Thank you very much for inviting me to today's hearing.

I am going to touch briefly on three points this morning: first, the status of the highway trust fund; second, options to generate revenue for the trust fund; and third, options for subsidizing increased borrowing by State and local governments.

For more than a decade, the government has been spending more each year from the highway trust fund than the revenues collected for it. Those revenues come mostly from taxes on gasoline and diesel fuel, as well as various taxes on heavy trucks.

CBO estimates that the balances in both the highway and the transit account will be exhausted in the first half of the coming fiscal year. The total shortfall over the next 10 years is projected to be \$195 billion in CBO's baseline estimates.

If the trust fund's balances were to be exhausted, the Federal Government would not be able to make payments to States on a timely basis. As a result, States would face challenges in planning for transportation projects because of uncertainty about the amount or timing of payments from the Treasury.

Turning to options for generating revenue, one approach would be to require users of the highway system to bear more of those costs. When people drive, they impose costs they do not fully pay for—and those include wear and tear on bridges and roads, delays from traffic congestion, and the harmful effects of exhaust emissions.

A combination of taxes on fuel and mileage that make its users pay for more of those costs would make use of the system more efficient. If you wanted to increase revenues by charging users in the system, you would have various options.

One option would be to increase existing taxes on gasoline and diesel fuel. Those taxes have been unchanged since 1993. Increas-

ing them by 15 cents a gallon and indexing them for inflation would raise about \$26 billion in revenue for the trust fund in the first year, and that amount would gradually increase over time.

Another option would be to impose new taxes on users of the system. For instance, the government could impose a tax on vehicle miles traveled. Some States already have VMT taxes. And CBO found that each 1 cent per mile of Federal tax would raise \$2.6 billion per year if it was levied on all commercial trucks.

Still another option would be to impose an annual tax or fee on owners of electric vehicles. Currently EVs comprise only a small share of vehicles on the road, and such a tax would raise about \$0.2 billion per year initially.

It is important to note that implementing a new tax would require resolving several practical steps to assess and collect the tax, and implementing new taxes would probably cost more for the government than increasing existing ones.

Some approaches would raise concerns about privacy, especially if applied to personal vehicles. An alternative to imposing the cost of increased spending on users would be to distribute them more broadly.

Since 2008, the Federal Government has transferred over \$150 billion from the general fund at the Treasury to the highway trust fund. You could adopt that approach again. And compared with some options such as increasing the gas tax, funding highways through broad-based taxes would have the advantage of imposing a smaller burden on low-income households as a share of their income.

As an alternative to increasing funding for highways or other infrastructure, the Federal Government could increase subsidies that reduce the cost of borrowing by State and local governments. The Federal Government subsidizes about \$20 billion of such borrowing for highways each year, most of that through tax-exempt bonds. Of course, such financing is not a new source of revenue, but a way of making future State and local revenue available to pay for projects sooner.

I will briefly mention two options for subsidizing borrowing. The Federal Government could authorize tax credit bonds which would allow lenders to take a credit against their taxes owed, rather than deducting new trust earnings from their income. The cost to the Federal Government for such bonds would depend on the credit subsidy, and that is a decision that you would be faced with in making such authorizations.

The Federal Government could also increase the cap on Private Activity Bonds for highways. Two PABs that have been issued account for about 90 percent of the \$15 billion total allowed for that purpose under current law. The cost to the Federal Government of such bonds is similar to municipal bonds, but they can be used for a broader range of purposes.

I will stop there, and I would be delighted to answer any questions that you might have. Thank you very much.

[The prepared statement of Dr. Kile appears in the appendix.]

The CHAIRMAN. Thank you, Dr. Kile.

We will next hear from Ms. Sheehan.

**STATEMENT OF VICTORIA F. SHEEHAN, PRESIDENT, AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, WASHINGTON, DC**

Ms. SHEEHAN. Well, good morning, Chairman Wyden, Ranking Member Crapo, and members of the committee. Thank you for the opportunity to appear today and speak to the critical need to provide stable and predictable funding for the Federal transportation program, as well as financing tools for State and local governments to utilize. Thank you also, Senator Hassan, for your words of welcome.

My name is Victoria Sheehan, and I serve as the Commissioner of the New Hampshire Department of Transportation, and as president of AASHTO, the American Association of State Highway and Transportation Officials. It is my honor to testify on behalf of the Granite State and AASHTO, which represents the State departments of transportation for all 50 States, Washington, DC, and Puerto Rico.

First, allow me to express on behalf of all the State DOTs our gratitude for the leadership of this committee on several important issues. These include the repeal of the \$7.6-billion rescission of highway contract authority in 2019, the extension of surface transportation programs for fiscal year 2021 while shoring up the highway trust fund, as well as the \$10 billion in COVID-19 relief provided last December.

We also thank you for your firm commitment to getting the Federal surface transportation bill done on time, as well as possibly providing infrastructure funding as part of an economic stimulus and recovery package.

This morning I would like to begin by discussing why timely reauthorization of the Federal surface transportation program is so important. New Hampshire, as a small rural State, relies heavily on Federal funds to make infrastructure improvements. Any delay, or even worse a series of short-term extensions, would wreak havoc across the country and would impact not just State DOTs but our partners, which are local governments and the construction industry.

Projects of all types and sizes would be at risk, including roadway safety improvements, repair work, as well as capacity improvements and active transportation investments.

AASHTO members know only too well that the timely reauthorization relies on securing the funding to pay for these programs. We stand ready to work with this committee and others in Congress to find a solution that addresses the growing infrastructure investment needs across the country.

Since 2008, Congress has had to transfer over \$150 billion from the general fund of the Treasury to the highway trust fund in order to maintain funding levels. While AASHTO is very grateful that Congress and this committee were unwilling to reduce surface transportation investments, we recognize that general fund transfers do not provide the long-term solution needed to stabilize these important programs.

In order to simply maintain the current highway trust fund spending levels, adjusted for inflation after the current extension of the FAST Act, it is estimated that Congress will need to identify

\$74.8 billion in additional revenues for a 5-year bill through 2026, while at the same time, the purchasing power of the highway trust fund revenue has declined substantially, losing over half of its value in the last 28 years. For the value of the dollars we are provided, the State DOTs continue to support a role for the Federal financing tools that allow needed projects to be advanced sooner.

I want to recognize the work of you, Mr. Chairman, and others on this committee to develop and pursue additional financing tools to help meet transportation needs. As an example, in 2014 the New Hampshire legislature approved a 4.2-cent increase in the State gas tax, primarily intended to complete the reconstruction of Interstate 93 from the Massachusetts State line to Manchester, the largest city in New Hampshire.

However, at the same time, New Hampshire DOT pursued a Transportation Infrastructure Finance Innovation Act, or TIFIA, loan, backed by that State gas tax increase. The TIFIA loan was structured so that New Hampshire is paying interest only for the first 10 years of the 20-year loan, allowing us to pledge the additional new revenue to rural paving and bridge work.

The result was the completion of a regionally significant project, savings of over \$20 million in financing, as well as improved pavement and bridge conditions across New Hampshire due to our ability to pave the 1,400 additional lane miles of roadway and replace 23 structurally deficient bridges.

Financing tools can play an important and specific role, and many States already rely on various forms of financing, ranging from traditional tax-exempt bonds, tax credit bonds, State infrastructure banks, and private equity, among other financing options.

Lastly, I want to say that State DOTs are extremely encouraged that both Congress and the Biden administration are discussing potential infrastructure investment. An infrastructure package coupled with a robustly funded surface transportation bill provides a unique window of opportunity to make much-needed investments in our Nation's transportation systems.

Whichever revenue tools you utilize to fund these programs, AASHTO looks forward to assisting you and the rest of your Senate colleagues in finding and implementing a viable set of revenue solutions.

Thank you again for the honor of being here today, and the opportunity to testify. I am happy to answer your questions.

[The prepared statement of Ms. Sheehan appears in the appendix.]

The CHAIRMAN. Thank you, Ms. Sheehan, and we very much appreciate your representing the Association of State Highway and Transportation Officials.

Our next witness will be Heather Buch. And I am always explaining, Ms. Buch, the fact that folks from Oregon are up early for these sessions. You had your corn flakes at the crack of dawn. So, thank you for all the good work that you do for Lane County, and let's have your testimony, please.

**STATEMENT OF HEATHER BUCH, SUBCOMMITTEE CHAIR,  
TRANSPORTATION STEERING COMMITTEE, NATIONAL ASSO-  
CIATION OF COUNTIES, WASHINGTON, DC**

Ms. BUCH. Thank you, Chair Wyden, Ranking Member Crapo, and distinguished members of the committee. Thank you for having me here today.

My name is Heather Buch. I serve as a County Commissioner for Lane County, OR. I am also representing the National Association of Counties.

Owning and operating 44 percent of public roads and 38 percent of the national bridge inventory—more than any other level of government—America's 3,069 counties, parishes, and boroughs are the leaders in the Nation's transportation infrastructure network. We also directly support 78 percent of public transit systems, and 34 percent of public airports that keep Americans connected in every corner of our country.

I am here today to underscore the significance of the county role in transportation and infrastructure, and to discuss how we can best work together to meet the challenges of today and the demands of the future.

I would like to begin with a point on which I believe we all agree: our Nation's infrastructure is in need of investment, and now is the time to act. Counties appreciate the continued bipartisanship around infrastructure and urge Congress to seize this exceptional moment to deliver historic investments that will enhance the quality of life for Americans across the country and help improve our global competitiveness from the bottom up.

A snapshot of infrastructure backlogs that include \$17.3 billion just for local bridges located off our Nation's highways and \$19.4 billion of deferred maintenance on U.S. Federal lands, reveals the great and immediate need for investment. The chair and ranking member know well the considerable role Federal forest revenues play in supporting roads and bridges across the western United States.

We urge final passage of Senate bill 435 reauthorizing the Secure Rural Schools program for 2 years. While counties play a significant role in the national network, we understand that improving our Nation's infrastructure relies on a strong Federal/State/local partnership.

Annually, counties invest \$134 billion in the maintenance and operation of public works and construction infrastructure. This includes essential community institutions such as schools, hospitals, jails, courthouses, parks, broadband deployment, and water and sewage systems.

In fact, local governments are the main funders of infrastructure. In 2015, we spent \$1.6 trillion directly on infrastructure, more than both our State and Federal partners. We are doing our part at the local level. However, 45 States, including Oregon, limit the ability of counties to raise local revenues in various ways, making the intergovernmental partnership vital to meeting our public-sector responsibilities.

Given our unique position to support America's infrastructure, counties call on our Federal partners to implement additional fi-

nancing tools and dedicated funding streams that will allow us to continue to provide excellent public service.

Municipal bonds and other Federal financing tools are key resources for county infrastructure projects. We appreciate the work of the membership in this committee to reintroduce the American Infrastructure Bond Act. To build on that progress, American counties offer the following recommendations.

Continue to protect the tax-exempt status of municipal bonds. These bonds remain the primary method used by States and local governments to fund public infrastructure projects. Any changes to their tax-exempt status would drive up costs for both counties and taxpayers.

Restore the tax exemption for advance refunding bonds. This would lower borrowing costs, optimize our stewardship of taxpayer resources, and drastically improve the ability of State and local governments to invest in critical projects.

Fully restore the State and local tax deduction. The SALT deduction is an essential aspect of preserving our Nation's system of federalism. Repealing the cap ensures that when counties make these local decisions to deliver our essential public services, our citizens are not double-taxed.

Provide a permanent fix for the highway trust fund. To plan and execute small and large-scale transportation projects that are critical to moving countless amounts of people and goods across our Nation, a permanent fix that will return long-term solvency to the fund is needed.

Direct Federal funds to locally owned infrastructure. Counties firmly believe that increased or expanded financial opportunities can't come in lieu of dedicated Federal funding streams for locally owned and operated transportation.

As the form of government closest to the people, counties know how to put Federal dollars to work where they are needed the most. Counties appreciate your attention and stand ready to work with you.

Thank you, and I am happy to answer any of your questions.

[The prepared statement of Ms. Buch appears in the appendix.]

The CHAIRMAN. Thank you, Ms. Buch, and again for participating so early. Just for the record, our committee created the Secure Rural Schools program, and Senator Crapo and I both are very supportive. So, we will be working with all of you in the counties in a bipartisan way.

Our final witness will be Ms. Shirley Bloomfield, chief executive officer of the Rural Broadband Association.

**STATEMENT OF SHIRLEY BLOOMFIELD, CHIEF EXECUTIVE OFFICER, NTCA—THE RURAL BROADBAND ASSOCIATION, ARLINGTON, VA**

Ms. BLOOMFIELD. Good morning, Chairman Wyden, Ranking Member Crapo, and members of the committee. I thank you for the opportunity to testify before you about funding and financing infrastructure, particularly how it relates to broadband.

I am Shirley Bloomfield, the CEO of NTCA, the Rural Broadband Association. We represent about 850 community-based providers

who are providing high-speed broadband and other advanced services across the most sparsely populated parts of our country.

The rural broadband industry and our Nation as a whole have a great story of success to date in delivering these services, and that certainly has never been more important than it has been over the past 15 months. But we still have so much work to do in both deploying as well as operating networks.

We still have far too many Americans who are lacking connectivity. And this is where public policy can play a really important role in helping to build and sustain broadband in rural markets that are otherwise not able to justify these kinds of investments.

The high cost of providing service into rural areas is an imposing obstacle, and you have to deploy, and you have to maintain, and you have to make it affordable. So there are other barriers as well that come into play.

We have supply chain concerns that are very time-consuming, and expensive permitting issues. So as this committee and as Congress consider plans to bridge the current digital divide, I would like to offer some specific recommendations with respect to broadband infrastructure and how it might be considered.

First, we should be building networks that are built to last. Given the user demands that have grown exponentially over time, a smart infrastructure plan should aim for the best return on those long-term investments that will meet the future needs of consumers and keep pace with the bandwidth-intensive applications that Americans desire. Putting resources towards infrastructure that must be substantially rebuilt in just a few years frankly is a waste, and it will leave rural Americans behind.

Second, we have to coordinate the many broadband programs that are out there and direct funding for new networks to underserved areas to limit overbuilding of existing Federal network investments, and make sure that any new broadband program actually coordinates with existing broadband programs that we have at the FCC, at USDA, NTIA, and numerous State programs.

Additionally, rather than just creating new programs from scratch, we have some existing programs, such as the High-Cost Universal Service Fund, that have a real proven track record of success in promoting accountability, and they should also be looked at to receive additional support, to be able to build on their success in extending and sustaining broadband.

Third, it cannot be lost that networks must be maintained after they are built. Congress should consider funding for this purpose, which will keep rates affordable for consumers. Distance and density make it very difficult, if not impossible, to justify a business case for infrastructure investment to start. No provider, whether you are a cooperative, a commercial entity, regardless of your size, can deliver high-speed, high-capacity broadband to rural America without the ability to justify and then recover the initial ongoing cost of sustaining that infrastructure investment in these high-cost areas. If there is insufficient support in the first place to enable the business case for ongoing operation of affordable broadband in rural areas, initiatives like tax incentives alone simply may do little to move that needle. You do not need tax relief in an area where you are already not making money.



Fourth, we need really clear standards for providers looking to leverage Federal resources to meet the real-world needs of consumers. And we should avoid using rural America as a test lab to see if technologies work, or whether they do not. Those receiving support should be required to show that they clearly can meet the program standards, and then use those resources to deliver better, more affordable broadband that will satisfy consumer demand over the life of the network in question. Otherwise, consumers are the losers here.

Fifth, we must encourage policymakers to look local when it comes to identifying broadband solutions in rural America, and to leverage the expertise and the experience of smaller community-based providers, regardless of their corporate form, in overcoming these challenges.

I look at our members. NTCA service providers are based in their communities. They have deep, longstanding relationships with their local governments and their anchor institutions. And the best results can often be achieved when operators with significant experience in building networks and delivering communication services work together with their stakeholders in the community to identify and respond to their specific needs.

Finally, barriers to broadband deployment must be addressed to sustain. We have to be looking at things like how do we minimize some of these barriers—environmental reviews, Federal lands, historical obligations—and also looking at supply chain issues. And I cannot stress this enough. But at a time when our Nation's supply chain is stretched so thin, providers are experiencing longer and longer times for deliveries of supplies to actually build these networks. There are so many opportunities for this committee to weigh in and to ensure that we are able to shore up that supply chain.

In conclusion, my sincere appreciation for the ability to come testify and share some thoughts about how critical broadband is to all Americans, regardless of where you live. And I look forward to your questions.

The CHAIRMAN. Thank you very much, Ms. Bloomfield.

[The prepared statement of Ms. Bloomfield appears in the appendix.]

The CHAIRMAN. We have many Senators to ask questions, and we are going to try to stick to the 5-minute rule. Let me note that Senator Crapo and I have already announced our support for the renewable effort of Build America Bonds. What I can tell colleagues is, we have five current Senators who were original sponsors of the Build America Bonds effort, and now both Senator Crapo and I would like to see it included in the effort to fund infrastructure.

So what I want to start with is getting into the principles of this user fee issue. Because to me, when you think about infrastructure, Congress has to contemplate the cost of the use and the amount of money on the table.

So, Dr. Kile, you have been looking at these issues. If Congress imposed a \$100-per-year fee on electric vehicle owners, would it make a meaningful dent in the highway trust fund shortfall, in CBO's opinion?

Dr. KILE. Senator, currently electric vehicles account for about 1 percent or so of the vehicle fleet on the road. They account for about 2 percent of sales.

So if a \$100 fee, or tax, were to be imposed, that would raise about \$200 million, two-tenths of a billion dollars per year in the first years. That is about 1.6 percent of the shortfall in the coming years. That would probably change over time as electric vehicles became more prevalent on the road, but in the near-term, that would only have a small effect on the shortfall.

The CHAIRMAN. All right. Now driving a mile in a four-door electric sedan obviously does not do the same harm to the highways as driving a mile in a fully loaded 18-wheeler. And the State highway officials and the Department of Transportation have shown that harm done to our Nation's roads by heavy trucks is essentially much more than that done by passenger vehicles. There have actually been some estimates that a heavy truck does nearly 10,000 times more damage than an electric sedan.

So, Dr. Kile, the Congressional Budget Office and the Joint Committee on Taxation have examined options for additional truck taxes, including a 5-cent-per-mile mileage tax. Can you give us a sense of what the potential revenue would be that would be raised in this kind of approach, according to the work done by the Congressional Budget Office?

Dr. KILE. Of course. We recently did an assessment of the possibility of vehicle-miles-traveled taxes on commercial trucks. In looking at that, we did note, as you have just noted, that heavy trucks cause much more pavement damage than passenger vehicles. Passenger vehicles contribute significantly to congestion in urban areas. But in terms of pavement damage, it is mostly heavy trucks.

So we looked at the possibility of a VMT tax and how much revenue that would raise. And we found that each 1 cent of the tax would raise about \$2.6 billion. So a 5-cent tax would raise \$13 billion per year.

In thinking about that, it is important to understand that new institutions need to be put in place to collect that, and those are not there now.

The CHAIRMAN. I appreciate the answers, Dr. Kile. For colleagues, the math here is pretty clear from CBO. CBO says that a reasonable truck VMT could raise \$8 billion to \$12 billion per year. And if you add a \$100-per-year fee on electric vehicle owners, CBO says that that would raise roughly \$200 million per year.

So that is the math. And we are obviously going to have a debate about lots of issues, but that is what CBO has told us on the math.

Now, Ms. Buch, we are so glad you are here to give us a sense of your on-the-ground perspectives. And I think you heard us talk about the ability of local governments to use Build America Bonds. That is something that has been used all across Oregon on bridges, and Lane County had a great interest in that. Oregon issued nearly a billion dollars' worth of Build America Bonds for roads and bridges and schools.

If paired with robust Federal funding, is that the kind of financing tool that would be helpful to Lane County in accelerating the financing of your infrastructure needs?

Ms. BUCH. In Lane County, as you mentioned, we were able to utilize the Build Back Better Bonds for significant upgrades to our community college and a large bridge construction project. Today, our county has new infrastructure challenges that could be similarly met with such a Federal tool and a combination of financing.

We have ideas of being able to ensure that we capture the greenhouse gases at our landfill and being able to potentially sell those back to our public transit district. Counties will use every tool in the toolbox that we are able to see, and we support any effort on that behalf.

The CHAIRMAN. Thank you for your good work and for being up early to educate the Senate on what things are like on the ground. I am over my time.

Senator CRAPO?

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

My first question is for you, Ms. Sheehan. I was very interested and impressed with what New Hampshire has done. In your testimony, you highlighted that the New Hampshire Department of Transportation has used Federal loans—I think you were referring to a TIFIA loan that you were giving the example on—to help finance infrastructure projects in the State.

Could you just go over again the reasons you utilized that approach, and what the ultimate leverage was you received, and the benefits you received from doing that?

Ms. SHEEHAN. Well, thank you, Senator, for the question. We are very proud of the work that we were able to accomplish with the TIFIA loan in New Hampshire. In 2014, as I mentioned in my opening testimony, the New Hampshire legislature approved a State gas tax increase—we actually refer to it as the “road toll” in New Hampshire, to infer that it is a user fee.

And the intent was to complete primarily one project, the widening of I-93 from Salem to Manchester, NH. With the TIFIA loan, we were able to stretch the value of that gas tax increase. The way the loan was structured, we pledged the revenue to rural bridge and paving work, in addition to the completion of 93. That is because in the first 10 years we are paying interest only, so we were able to take all that additional revenue and invest it across the State.

We also qualified for the rural rate, so the loan interest rate was 1.09 percent, and so there was also a significant savings in terms of the financing costs as compared to traditional bonding.

Senator CRAPO. Well, thank you. Could you just clarify to me what kind of leverage you got? In other words, what I am trying to get at is, for the amount of money that you were able to put up in terms of the loan, how much in addition to that were you able to leverage it into? You indicated there were a number of existing or additional projects, but what was that in dollars, roughly, or in a ratio of dollars?

Ms. SHEEHAN. So we were able to reconstruct 1,400 miles of roadway and approximately 23 structurally deficient bridges. So that was a significant cost avoidance for the State, because we were able to invest in the near-term, as opposed to having to continue to Band-Aid that infrastructure.

So directly, there was savings of approximately \$40 million, in terms of the ability to advance things sooner. And then, as I mentioned, the financing savings provided further value.

Senator CRAPO. All right; thank you.

And, Dr. Kile, in the testimony and discussion so far, we have heard a lot of discussion about, I think I would call it increasing access to private capital for infrastructure.

We have heard discussion of tax credit bonds, Private Activity Bonds, Build America Bonds, infrastructure banks, and so forth. Each of those could be—and we have other funds. We have TIFIA, we have WIFIA, we have the RRIF and other funds or programs, and they focus on things like roads and bridges and rail and water infrastructure.

Could you tell me and maybe just discuss some of these different approaches to accessing private capital? Are they effectively able to be utilized to leverage spending as has been shown in the case of New Hampshire? And do you have any kind of data on how effective that might be, what kind of revenue we might expect from certain Federal investments into these types of bonding programs?

Dr. KILE. Sure; I'll be happy to do that. And I will use TIFIA as an example. Over a recent 5-year period, I think there were 19 projects that used TIFIA funding. With TIFIA, the Federal Government makes direct loans to an organization that is undertaking a transportation infrastructure project. That entity needs to either get private financing or borrowing through Private Activity Bonds that also complement the Federal money in that.

So I think TIFIA loans accounted for about a quarter of the financing in those 19 projects that I mentioned earlier.

Senator CRAPO. Maybe “return” is the wrong word, but a 3-to-1 leverage in terms of the money that is put in versus the money that is getting applied, or incentivized to be applied to infrastructure?

Dr. KILE. In those examples, about a quarter of the funding would have come from the TIFIA loan program. Some of the funding comes from Private Activity Bonds, which are also tax-favored bonds.

Senator CRAPO. All right. And very quickly, do we have anything like that working for broadband right now?

Dr. KILE. I am not aware of any such programs that are specifically on broadband. Perhaps one of the other colleagues on the panel knows more about that than I do.

Senator CRAPO. I am out of time. But, Ms. Bloomfield, maybe I will give you that question afterward for you to respond in writing. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Crapo.

Senator Stabenow is next.

Senator STABENOW. Well, thank you very much, Mr. Chairman and Ranking Member. First, I want to just briefly comment on proposals that some colleagues are making about Federal fees for EVs to fund the highway trust fund.

I sincerely wish we had enough electric vehicles on the road today to make this a big issue. And in fact, EVs are about 2 percent of vehicles. So today we hope there will be more down the

road, but as Dr. Kile made clear, a fee on EVs right now would be equivalent to what people pay in gas tax; it would fill about 1.6 percent of the highway trust fund revenue shortfall over the next 5 years.

So I support going down the road that we should explore a range of options to fund the highway trust fund, including something on electric vehicles at some point where it is actually an issue, but it is certainly not a solution for funding in the next 5 years at least.

But in that context, I would agree with Chairman Wyden that our first priority for funding should be to make sure large corporate users of our roads and highways are paying their fair share. And I can assure you that people in Michigan do not think paying zero is fair. And so, that is where I hope we will focus.

Now I would like to turn to Ms. Buch for a question. Prior to 2017, as you have indicated, State and local governments had access to a financing option called advanced refunding for municipal bonds used to fund a whole range of infrastructure projects. And the details of advanced refunding are complicated, as you know, but the bottom line is that it allowed communities to finance an infrastructure project at the lowest cost.

So, Ms. Buch, in your testimony you noted that the Government Finance Officers Association found that in the decade prior to repeal, there were over 12,000 advanced refundings, saving communities over \$18 billion. And I know this has been supported by Michigan's State Treasurer as well, urging that this tool be put back in the toolbox.

So that is why Senator Wicker and I teamed up, as you know, to introduce the Local Infrastructure Act, which will reinstate advance refunding. We have over 20 bipartisan cosponsors. I really hope this is going to be put in the next infrastructure bill. But I wonder if you could just speak more to the kinds of projects that municipal bonds are used to finance, and explain why you think restoring the advance refunding would be, quote, "one of the most effective actions to provide State and local governments."

Ms. BUCH. Senator, thank you so much for the question. We have a variety of bonds. We are a medium-sized county, and we have used them over the years for a variety of needs.

We would be interested in knowing what is available and what we can do on our level for bonding. It is really important for us when we are speaking about utilizing one of these bonding tools that we are able to pay them back within the 20-, 30-, 40-year time in which they would be out and they are at rates that are low enough—and that we know that we would be able to refinance them should rates change. That is really important.

For example, we tried recently to go out for a bonding with our taxpayers for a county courthouse to the tune of about \$250 million. The State was going to pay for half of that. But it did not pass, and we need to be able to show our partner in the future, if we go out again, that this has economic development and stimulus associated with it. I think the pairing of those two would make it more enticing to our taxpayers.

Senator STABENOW. Thank you very much.

Let me turn now to talk about broadband for a second. I think we all agree now that that is certainly what anyone would call "in-

frastructure.” And as chair of the Senate Agriculture Committee, I have been laser-focused on working with colleagues to really deliver on robust investments to deal with the digital divide. And certainly, that became extremely apparent during COVID.

Ms. Bloomfield, in your testimony you mentioned that Federal funds to address gaps in high-speed Internet access must be done in a manner that is sustainable, which is important given the Federal Government’s role, because we have three different agencies involved, as you know, in broadband deployment.

So in the 2018 farm bill, we authorized a number of USDA programs to scale up broadband in rural America, but we also added requirements for coordination with USDA, FCC, NTIA, to improve the targeting.

So what would you recommend as we build out these efforts, building on what we did in the farm bill and other efforts to ensure that that effective partnership really exists?

Ms. BLOOMFIELD. So thank you, Senator. And first of all, let me applaud the leadership you all showed on the Ag Committee. The work that you did creating the ReConnect Program has really meant dollars on the ground. People are getting broadband for the first time, thanks to that program.

So I would say a couple of things. First, use the same metrics. Use the same maps. Right now, you in Congress recently had legislation, and then funded legislation recently, to actually complete a national mapping program. The FCC is hard at work. Let’s make sure we use the same maps so we can stay coordinated on all of that.

RUS and the FCC have a long history of staying coordinated with each other, a longstanding relationship. USDA really funds the capital of these broadband networks in these rural markets. The FCC has really supported the ongoing operations and affordability.

But I think there is some work that could be done to make sure that at the operational level, as we talk about grants, how do we make sure that grants are not going into overlapping jurisdictions? So again, I applaud the initiative. It is critically important, and I think we’ve got some great work ahead, thanks to your leadership.

The CHAIRMAN. I would not disagree with a thing Senator Stabenow said, or Ms. Bloomfield said. We are just going to have to move on.

So let’s go next to Senator Grassley.

Senator GRASSLEY. Well, we will go on from—thank you, Senator—we are going to go on from where Senator Stabenow left off—

The CHAIRMAN. Good.

Senator GRASSLEY [continuing]. Because I am interested in the infrastructure. So before I ask my questions, I would just note that the infrastructure has always been an area where Congress has worked in a bipartisan way. We have always proved that this Senate can move such bills, with the passage of the water infrastructure bill within the last couple of weeks. The Republicans and Democrats are not far apart on the infrastructure-related items.

I am encouraged that bipartisan talks continue with the President. As former chairman and ranking member of this committee,

I understand that it is hard to find consensus of how to pay for infrastructure. But, Mr. Chairman, we have met that challenge before, and I think we are going to do it again this time.

I appreciate all the witnesses participating today. So my first question is, if we have learned anything over the past year of the pandemic, it is the vital importance of broadband and being able to stay connected for our businesses, health, education, and well-being. The State of Iowa estimates that it will require over \$800 million in new investment to make affordable high-speed broadband available to all Iowans. These are the hardest to connect, mainly rural farms and homes.

In recent testimony before the Commerce Committee, several witnesses, including former FCC Commissioner O’Rielly, stated that to meet the unmet needs of those who are truly unserved, we need to be laser-focused on concentrating on those without service and should meet that goal before expanding the focus to those who already have some service.

I know that there is concern that if we were to expand this focus, it would divert money and attention from those without service. So obviously my question is to you, Ms. Bloomfield. Do you agree that we need the laser focus on connecting those unserved? And if you want to expand in any way on this issue, I would appreciate it. Could you continue to explain how coordination of Federal programs can be improved, as well as my first question?

Ms. BLOOMFIELD. Absolutely, Senator. So you have the distinction of having the most community-based broadband providers in the country in the State of Iowa. So I could not agree with you more that we have to be laser-focused on those Americans who are still waiting for connectivity. And again, if we have not learned anything over the past year, then shame on us.

Those folks need connectivity. And when we think about prioritizing, absolutely the prioritization has to be to those who are still waiting for that connectivity. That is where the first tranch of dollars should go.

Then there are a number of—you know, networks are living, breathing entities. They need to be upgraded. They need to be maintained. That is when we can then pivot to thinking about how we continue to improve all of the networks that already exist—for example, the ones that are provided by your 100 independent carriers out in the State of Iowa.

That is why mapping is going to be so important, because we do not really know the full story of where those unserved or underserved Americans are. So I think that is one thing.

The other point that I would make to your comment is, we have a once-in-a-generation opportunity on the investment side on infrastructure to do this right, to aim higher, to do better. So when we talk about connecting those unconnected Americans, we should not be putting in infrastructure that in 2 or 3 years we are going to be back to you talking about how we fund upgrading that infrastructure.

We have learned so much about how Americans use broadband over the course of the last year. We need to make sure that we are looking at symmetrical services, 100/100, the ability for folks to upload as fast as they are downloading. We are seeing that in ap-

plication. We are seeing demand for broadband bandwidth go up by about 25 percent a year. That is only going to explode, and that is going to create innovation, and that is going to help the American economy.

So there are a lot of different places that we need to be looking at, but you are absolutely right. Let's get those folks who are not on the networks, let's get them connected, and then let's focus forward.

Senator GRASSLEY. I yield back, Mr. Chairman. Thank you very much.

The CHAIRMAN. Thank you very much, Senator Grassley.

Next is the chairman of the Environment and Public Works Committee, Senator Carper.

Senator CARPER. Thanks, Mr. Chairman, so much for your holding this hearing today. I want to thank you and Senator Crapo for doing that. I want to thank each of our witnesses: Dr. Kile, Ms. Sheehan, nice to see you again—you were just before the committee 2 months ago, as I recall—Heather Buch and Shirley Bloomfield.

A lot of you heard, I am not a huge hockey fan, but I have a lot of respect for Wayne Gretzky, who is maybe the greatest hockey player who ever played. He was asked in his prime, "Why are you such a good hockey player, Mr. Gretzky?" And he said, "I go where the puck will be, not where the puck is." That is what he said. "I go where the puck will be, not where the puck is."

A couple of weeks ago we had a hearing in our Committee on the Environment and Public Works, and we had a hearing on vehicle miles traveled, a notion which really, I think, has its roots in Oregon, as the chairman knows—a road user charge. And we had witnesses from around the country who came and talked about whether or not that is where the puck will be and if that is where we need to be pointed.

Senator Stabenow, if she is still on the line, knows what is going on in the auto industry in terms of moving off of gas- and diesel-powered vehicles onto electric and onto hydrogen. It has been a very slow uptick until of late. Twenty years ago, colleagues, I went out and bought a Chrysler Town and Country minivan with my son Christopher. Today it has 550,000 miles on it. He and I went out about 2 months ago, when he was home from California, we went out about 2 months ago and drove cars again. We drove all-electric vehicles.

The electric vehicles—the Chevrolet Volt was the car of the year about 10 years ago; it got 38 miles on a charge. We drove all kinds of vehicles just a month or two ago that get over 300 miles on a charge. And I ordered one just 2 days ago that gets 326 miles on a charge.

But we are going to see just an incredible uptick. People love to drive these vehicles. They are fun. They are fast. And they do not send any pollution into the air. Their upkeep is low. That is where we are going.

And it is not going to happen overnight, but it is going to happen with increased velocity going forward. When I was new in the Senate, I sat right in front of a guy named Ted Kennedy, whom my colleagues remember well. And I remember having lunch with him



when I was new in the Senate, and I asked him, I said, "Why do all these Republicans want you, Ted Kennedy, big liberal Democrat, why do they want you to co-sponsor their big bills?" And he said, "I am always willing to compromise on policy, but never willing to compromise on principle." That is what he said: always willing to compromise on policy, never willing to compromise on principle.

The chairman has already mentioned principles. Some of you have mentioned principles. I will just ask our witnesses—I am going to say a principle that I think that we can agree on, and I just want our witnesses to say really "yes" or "no."

One of the principles would be that we need to make substantial investments in infrastructure, and particularly in transportation infrastructure. Is there anybody among our witness panel who would say "no"? Speak now or forever hold your peace.

I don't hear anybody. Okay, another principle would be, things that are worth having are worth paying for. Is there anybody among our witnesses who would disagree with that, say, "no"?

Hearing nothing, forever hold your peace. Another one would be, those who use our roads, highways, bridges have some obligation to help pay for them. Is there anyone who would say "no" to that?

All right, here's another one. Our witness from the counties—sometimes we think to be responsible, whether it is transportation or it is water, which we work on a lot, it should all be on the Federal Government. I think maybe a principle should be that this is a shared responsibility. We heard that from our NAC folks just this morning.

Is there anybody who thinks that this should not be a shared responsibility?

Okay. And I would like to say there are no silver bullets when it comes to funding surface transportation. There are a lot of silver BBs, and some are bigger than others. I was interested to find that—George Voinovich and I teamed up during the Bowles-Simpson days, more than a decade ago, and we suggested restoring the purchasing power of the gas and diesel tax.

I will be honest, friends, I think where we are going as a country in the next dozen or so years, I think we are moving to something akin to VMT. It is not going to be the only thing, but it is something that makes a lot of sense.

What we need to do is create a bridge to the future, a bridge to the future. I am going to ask each of our witnesses to take a minute apiece and say what should that bridge to the future be? Very, very crisply and succinctly, starting with Dr. Kile. Thank you, Dr. Kile; very crisp and succinct. What should a bridge to the future be?

Dr. KILE. So, Senator, I hate to not give you a direct answer to that question, but my job is to give you options and help you evaluate them.

Senator CARPER. Okay; on the record, for the record please. Thank you.

Ms. Sheehan, good to see you again. Again, the bridge. We are looking for a bridge to help build bridges, but the bridge to the future?

Ms. SHEEHAN. So in 2019, the AASHTO board of directors took up a resolution concerning the future sustainability of the highway trust fund, as well as what the near-term solutions might be.

We really narrowed in on four options: a motor fuel tax increase or indexing; freight-based user fees; per-barrel oil fee; as well as continuing to advance a mileage-based user fee solution, or a vehicle-miles-traveled fee.

Senator CARPER. Thanks so much.

Ms. Buch, the bridge to the future? What would that bridge include?

Ms. BUCH. Returning solvency to the fund by increasing Federal fuel taxes, implementing a vehicle-miles-traveled program, and other alternatives would provide sustainable revenue. And that is imperative for our Nation's highway and transit systems.

Senator CARPER. Thank you, ma'am. Finally, Ms. Bloomfield, what would the bridge look like, the bridge to the future?

Ms. BLOOMFIELD. It is going to be a digital bridge. The 21st-century superhighway is broadband connectivity. We found that out when we could not go to our offices, we could not go to our schools. The ability to stay connected, do commerce, do education, do tele-medicine, all through digital—so I am going to give you the digital bridge.

The CHAIRMAN. Thank you, Senator Carper, Chairman Carper.

Senator Cornyn?

Senator CORNYN. Well, thank you, Mr. Chairman and Ranking Member Crapo, for having the hearing on the absolutely taboo subject of paying for infrastructure. It is a conversation we have needed to have for a while.

And for myself, let me just say that a repeal of the 2017 Tax Cuts and Jobs Act is a nonstarter, as is the general tax increase on the American people in the gas tax. So we need, in my view, something a little different. And I will have a suggestion, or at least an idea that we can explore.

But, Dr. Kile, the Department of Transportation has not conducted a national cost allocation study in almost 2 decades. So we do not actually have a clear picture of how much wear and tear is being done to our highways, or who is doing most of that damage.

As someone who is clearly an expert in good budgeting, does it concern you that we are sitting here trying to figure out how much to pay for infrastructure without actually knowing how much it should cost, or who should be chipping in to cover the maintenance of our roads and bridges?

Dr. KILE. It does create challenges, Senator. Obviously, the most recent cost allocation study is about 20 years old. And if that were to be updated, I think that would be quite helpful to everyone.

Senator CORNYN. Ms. Sheehan, the witnesses today have spoken at length about fixing the highway trust fund, and I am all in for that. While not likely feasible in this context—and I do not want to take that off the table—but can you speak to the potential benefits and challenges of eliminating various revenue generators like the tire tax, the heavy vehicle use tax, and others, and replacing them with a single cost-adjusted user fee like miles traveled?

Ms. SHEEHAN. As we transition to any new solution, the cost of collection is something that we want to look at closely. And until

we know more about the solutions that are being proposed and are able to adequately estimate what those costs are, it is challenging for us as State transportation officials to have an opinion on whether one solution is more advantageous than another. But we at AASHTO stand ready to continue to support this committee and Congress as you look at all the alternatives so we can understand what the cost implications might be of implementing these solutions.

Senator CORNYN. Dr. Kile, in 2019 the Joint Tax Committee provided a score for a vehicle-miles-traveled user fee on Class 7 and 8 trucks. These are the heaviest commercial trucks, with some exemptions for farm, State, and local government trucks.

They assumed a rate of about 25 cents a mile, and it generated on average about \$33 billion a year. The total they projected from 2019 to 2024 was \$101.3 billion. Just as an idea that the committee ought to consider, do you see that as a viable means, if the policy was accepted, of raising the money that now we need—that is missing in the highway trust fund?

Dr. KILE. So a VMT tax does have the potential to raise significant revenue, as in the example that you cited. A challenge would be that the types of mechanisms for collecting and enforcing the tax are not yet in place. And those would need to be developed. And the cost of doing so could be substantial.

Senator CORNYN. Yes, I am sure the administration of that would be a challenge; any sort of new approach. But right now, we have a big hole in the highway trust fund, and we have to come up with some money from somewhere. And I would just propose, respectfully, we call this what it has always been under the highway trust fund, which is a “user fee” tied to the gas tax.

But as I indicated earlier, I do not believe there is any political support for an increase in the gas tax across the board. I think I have heard President Biden say that, and I know that that is true on our side of the aisle as well. But a targeted vehicle-miles-traveled user fee on heavy trucks used as commercial vehicles, along with perhaps some relief on other fees that the trucking industry pays, to me seems like one idea that—while there is no perfect idea, and there is also nothing free, we need to come up with something that makes sense. And so that is something I appreciate the committee considering, Mr. Chairman. Thank you very much.

The CHAIRMAN. Thank you, Senator Cornyn, and we will be working in a bipartisan way on these issues. Thank you.

Senator Brown is next. He is chairman of the Housing and Banking Committee, which has significant transportation responsibilities as well. Senator Brown?

Senator BROWN. Thank you. Amazingly enough, Mr. Chairman, I am going to ask about that. So thank you, and thanks for the comments of my colleagues, and I really appreciate your holding this hearing.

We know there is an enormous need for infrastructure investment everywhere in this country. And in my State especially, the neighborhoods and towns and homes have been overlooked by Washington and by Wall Street for too long. I worked with Chairman Wyden, Senator Whitehouse, and my Republican colleague

Senator Portman, to introduce the Bridge Investment Act to provide competitive grants for bridge replacement.

The Brent Spence Bridge over the Ohio River between Cincinnati and northern Kentucky carries 3 percent of our Nation's GDP across it. But that bridge is dangerously outdated. We secured more than \$3 million for bridge repair in the highway package developed by now-chairman Carper and Senator Barrasso last Congress in their committee, but that barely scratches the surface, as we know.

The Federal share of replacing Brent Spence alone is likely more than \$1 billion. Each of our States has thousands of small bridges owned by cities and counties that need repair.

So my question, Ms. Buch, is this. As the chairman said, I chair the Banking and Housing Committee that has jurisdiction over public transit issues too. Talk to me about how—what can Congress do to make possible housing and transit investments, working together? And as you answer, talk about the benefit to workers and their families as we do that.

Ms. BUCH. Chair Wyden, Senator Brown, thank you so much for the question. At the county level, there are a variety of things that we have determined that could help the investments in housing, while paired with transportation.

There are several ideas, one of which is to pursue transit-oriented development housing partnerships with agencies and support the FTA joint development projects. This prioritizes the development of under-utilized and surplus properties across transit corridors. In addition, there is a partnership outreach to local financial institutions. This outreach could support widespread development of ADU construction loan projects, appraisal of pilot programs, and construction of loan programs for home conversions and additional housing units.

Also, there is the pursuit of community land trusts and limited equity cooperative models in rural lands. This strengthens and facilitates rural affordable housing via the community land trust model, and the LEC hybrid model.

Senator BROWN. Thank you.

I had a conversation with Chairman Wyden over the weekend, a pretty lengthy conversation about the tax gap. We know the Trump-appointed IRS Commissioner estimates that the tax gap is as large as \$1 trillion. Senator Thune and Senator Whitehouse in their subcommittee last week discussed that.

People know that the difference between taxes owed and taxes paid, when it is that large, it is not fair. Constituents in Portland and Eugene, OR, or Columbus or Cleveland, OH, know if you punch a clock in a factory, or wait tables, or help the elderly in nursing homes, you have to pay the taxes you owe.

That is why, as I heard Senator Cornyn talk about revenue, this is a place to start when it comes to financing these priorities we are discussing. It is not about raising taxes. It is about collecting taxes already owed by taxpayers who are not paying what they owe.

So I am hopeful my colleagues on both sides of the aisle can agree that closing this tax gap, ensuring corporations and the

wealthy pay what they already owe, that that is a good place to start when it comes to funding these infrastructure priorities.

Mr. Chairman, I yield back the last minute of my time. Thank you.

The CHAIRMAN. Thank you, Senator Brown. And thank you very much for the helpful input as well, over the weekend. It was really useful.

Senator Thune is next.

[Pause.]

The CHAIRMAN. John, you are muted.

Senator THUNE. You got me?

The CHAIRMAN. Yes.

Senator THUNE. Thank you, Mr. Chairman, and thanks to all of our witnesses for being here today as this committee begins working toward a reauthorization of surface transportation programs.

This committee plays a crucial role in funding any reauthorization of these programs, and it must be done in a bipartisan manner that recognizes our Nation's diverse and highly interconnected transportation systems. For example, it is crucial that transportation policy and investment recognize the importance of rural areas where the vast majority of agricultural and industrial commodities originate.

I have said it before, and I will say it again, that those investments benefit the entire country, not just rural areas, by keeping the national transportation system fluid and interconnected. While they may not be located in major cities or experience high traffic volumes, rural freight corridors are a critical component of the Nation's transportation system, ensuring that goods are transported around the Nation and the world safely and efficiently.

Their circumstances also mean that revenue solutions which might work in an urban area, such as tolling, are simply unworkable in rural areas.

Finally, it is crucial that we work together in this committee on long-term funding for the highway trust fund, which is long overdue and sorely needed. And I want to thank the witnesses again for being here to talk about that subject.

Ms. Sheehan, as you all know, the highway trust fund will face a \$190-billion shortfall by 2030. Continued transfers from the general fund, which pass this burden on to our grandkids, are not a long-term solution to solvency.

Could you describe why the uncertainty associated with the highway trust fund revenues has a negative effect on infrastructure investments at the State level? And then, if you could try and answer this together so we can try to get to a second question through another panelist, you listed several options for providing additional highway trust fund receipts. Under current circumstances, and as the Nation recovers from the pandemic, which do you see as the most viable?

Ms. SHEEHAN. Well, thank you for the question. It is extremely important to have certainty around this funding. Any shortfall on the highway trust fund would jeopardize our ability to deliver on the projects and programs that we are committing to and would be extremely disruptive to the communities that we serve.

It also causes challenges for the construction community, as they prepare to bid and advance the work that we are advertising. So it is very important that we look at long-term funding solutions for the highway trust fund.

As I mentioned, the AASHTO board of directors in 2019 coalesced around four specific revenue mechanisms. The first would be a motor fuel tax increase with indexing. Alternatively, you could look at a freight-based user fee, a per-barrel oil fee, and many of our State DOTs have been active participants in the Surface Transportation System Funding Alternatives Program, soliciting through that grant program funding to advance mileage-based user fee or vehicle-miles-traveled fee concepts.

So we have a lot of experience now in this area and look forward to working with the committee.

Senator THUNE. Which of those do you think make the most sense, based on where we are today?

Ms. SHEEHAN. We believe we should look at a national pilot before we would be ready to award a mileage-based user fee, or a VMT model. So we would favor some of the other solutions perhaps as short-term solutions.

Senator THUNE. Ms. Bloomfield, the American Rescue Plan tasked the Department of Treasury to help close the digital divide. But without coordination with expert agencies like the FCC and NTIA, we risk wasting these funds and over-building existing broadband networks.

Could you talk about the need for proper coordination to ensure that this funding goes to the areas that are truly unserved?

Ms. BLOOMFIELD. Absolutely. So first of all, given your leadership role in the broadband space and how much work you have done, I think we have just started to see some of the rules come out from Treasury.

I am very heartened by the fact that they are really taking a very forward-looking perspective on it. They are explicitly allowing funding to be used for broadband, looking at making sure we look at a target of 100/100 symmetrical speeds that will bring the most robust broadband out all to parts of the country. And, not unlike your commentary about transportation, the fact is, the more Americans who are connected digitally as well, the more valuable it is for everybody across the country.

So again, I think the threshold of looking at areas that are lacking 25/3 being the basis for being unserved is really critical. How do we get those folks connected? And then build onto that with those who have networks that need to be maintained and make sure that we can make broadband affordable for all. That is another key component of all of this.

But transportation and broadband have a lot of similarities, I am discovering this morning.

Senator THUNE. Thank you, Mr. Chairman. My time has expired.

The CHAIRMAN. Thank you, Senator Thune.

Next is Senator Bennet.

Senator BENNET. Thank you very much, Mr. Chairman. I want to thank you and Senator Crapo for your comments about Build America Bonds. That gives me some hope going forward.

And I wanted to start with Ms. Buch. Last month, my colleague Senator Wicker and I reintroduced our bipartisan American Infrastructure Bond Act. The bill would create a new class of direct-pay taxable bonds to help State and local governments finance critical public projects.

These bonds would be similar to Build America Bonds created in the Recovery Act, but would improve on those because, among other things, they would be exempt from sequestration automatic budget cuts. American Infrastructure Bonds would be attractive to investors who do not benefit from traditional tax-exempt bonds, such as pension funds and institutional investors.

So, Ms. Buch, if States and local governments had access to this additional tool of direct-pay bonds, what effect would you expect it to have on public infrastructure growth and development? Could it potentially save them money as compared to relying solely on tax-exempt bonds?

Ms. BUCH. Senator Bennet, thank you. Expanding access to the taxable bond market will incentivize and boost investment in local communities. The COVID-19 pandemic has compounded the existing strain on the Nation's infrastructure systems and widened our digital divide.

Thank you to Senators Bennet and Wicker for introducing this bill. It will greatly improve our ability to invest in the critical infrastructure projects and improve the resiliency of our many county-owned infrastructure assets.

We believe that the direct-pay bonds like Build America Bonds are an excellent complement to municipal bonds for county infrastructure projects, especially now as we continue to battle the dangerous effects of COVID-19 on county budgets. And we welcome the extra assurances that direct-pay bonds provide.

Senator BENNET. Thank you. Thank you for that.

Ms. Bloomfield, 2 months ago I wrote to the Biden administration, along with Senators King, Portman, and Manchin, urging the administration to bring our Federal broadband standards into the 21st century.

Today, the FCC defines high-speed broadband as a download speed of 25 megabits per second, and an upload speed of 3 megabits per second. The standard at the U.S. Department of Agriculture is even slower. If you are a parent working remotely with kids going to school online, there is nothing high-speed about that.

As a country, we have to stop spending billions of dollars on networks, as you said. They are outdated as soon as they are finished. That hurts rural communities the most, marooning them with broadband speeds that people living in a city or a suburb would never accept, yet the Federal Government would say that the job has been done.

We need to invest in future-proof networks across the country that will meet our needs not only today, but for years to come. And I am sure you have heard people in Washington talk about how high-speed broadband cannot work in rural communities. And even if it did, people do not need those speeds. That has not been our experience in Colorado, and I know your members disprove that view every single day.

Could you tell us more about how your members are investing in affordable future-proof networks in rural America?

Ms. BLOOMFIELD. Absolutely. And thank you, Senator, for your leadership on weighing in about how important it is that we do this right. We have this opportunity. We look at 100/100 as the buildout minimum speed for any Federal funding because, again, anything less is going to be obsolete immediately. And Federal dollars would be wasted.

I think we have this chance to do this in a way that also brings comparability, to your point. We are seeing providers constructing networks in urban areas that are capable of 100/100. Why shouldn't rural America have the same access to that connectivity?

We certainly want to make sure that we haven't got, you know, one set of citizens who are second class, particularly when we see that one of the biggest hurdles for rural Americans is the geography handicap.

We have been able to bridge that with broadband. Again, you know, watching folks—the number of telemedicine clinics that got set up, as an example, over the course of the pandemic is amazing. The use of telemedicine—a 40-percent increase.

We will never put that genie back in the bottle, nor should we. The ability to really unleash innovation and invention, and the fact that we have to have our kids doing homework at the counter while we are on our VPN for work—again, I think we are short-sighted as a country if we make less of an investment.

Senator BENNET. Thank you for that.

Mr. Chairman, thank you.

The CHAIRMAN. Thank you very much, Senator Bennet. And I am glad that you and Senator Wicker are looking at a variety of different bond options. I remember Senator Wicker was one of our original sponsors back when we proposed Build America Bonds, and the Federal Government had never bonded before. We have come a long way, and we will be working very closely with you and Senator Wicker. And I know Senator Crapo is going to want to work in a bipartisan way on this as well.

Senator CASEY is next.

Senator CASEY. Mr. Chairman, thanks very much. And I want to thank our witnesses for their testimony today on so many of these critical issues.

I will start with what I think is an assertion that both parties agree with. And that is, if we fail to invest in our infrastructure, we are paying a cost. That failure to invest results in costs to the Nation. And I would say, in my judgment, our failure to invest in infrastructure is not a problem of recent vintage.

We have failed to invest in our infrastructure for about a quarter of a century. Once in a while we have made investments in transportation infrastructure, but broad-based investments, we have not made.

In our State of Pennsylvania, the most recent estimate is that about 15 percent of our bridges are in the structurally deficient category. So that means thousands of bridges in our State need substantial repairs. And I think that is one of the reasons we are all wrestling with these issues about what are the needs, and what are the investments we have to make, and how do we pay for them?



I come from a State that has a substantial rural population. We have 67 counties, but 48 of the 67 are considered rural. And in some parts of counties, that means that you have a lot of agriculture, obviously, but “rural” can also mean a small town. “Rural” can often mean communities that are left behind when it comes to investments in infrastructure.

One of the ways that I am looking at this infrastructure challenge is through the context of not just bridges in the big cities or in the larger population communities, but in off-system bridges. The bridge that takes that ambulance over a bridge to make sure that someone can be provided medical care. The bridge in that small town that takes that school bus full of children from their homes to the school that they go to. And these off-system bridges, as Commissioner Buch has noted, have not been the subject of nearly enough attention. I am not putting words in her mouth; they are my words.

So, Commissioner, I want to start with you on these off-system bridges. About 47 percent of bridges in my home State are off-system bridges. You told us there is about a little more than \$17 billion in backlog in maintaining these bridges.

Can you tell us what happens to a community when a bridge is not maintained, these so-called off-system bridges?

Ms. BUCH. Senator Casey, thank you so much. I also live in a district that is largely rural here in Oregon, and those bridges are lifelines to metro centers where supplies are needed. When we are considering emergency preparedness in our community, those bridges are absolutely essential. With natural disasters coming more frequently, more often, and more powerful, it is so critical that we make sure that those roads and bridges are in good repair so that emergency services can come when they are needed.

They are also a way in which communities can easily get cut off from the rest of the Nation, both from just physical trouble but also when lines of communication are down—Internet, phone lines, and such. So it is imperative that those bridges are maintained on a very regular basis with ongoing funding, where there are not fits and starts.

Senator CASEY. Well, I appreciate that. And I think one of the challenges we have is to make sure that we have local inputs when we are making these determinations about infrastructure.

And I would ask you this, Commissioner: how can the Federal Government better include local leaders in deciding how best to spend Federal resources?

Ms. BUCH. Counties firmly believe that at the local level is where we make the best decisions on the best use of those funds. It is so important to be able to receive those direct payments so that we can make those critical decisions on behalf of our residents.

Senator CASEY. Commissioner, thank you. I want to thank you and the other witnesses, especially you and Ms. Bloomfield, for focusing on these rural communities.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Casey.

Senator Portman?

Senator PORTMAN. Thank you, Mr. Chairman, for fitting me in. I think this is an incredibly important hearing because, probably

the most important aspect of infrastructure that we are not talking enough about is, how do you pay for it?

I think there is a general consensus on the need for more funding for our roads and bridges, and a broad definition of infrastructure, including broadband, and certainly wider infrastructure and electrical grids and so on. But how do you pay for it is the tough thing.

I am going to mention three things here quickly. One is to use some of the COVID money that has already been appropriated but not obligated. Another would be these public-private partnerships, the so-called P3s. Another would be infrastructure banks; you know, building on TIFIA, and so on.

Let me start, if I could, with a question to you, Commissioner Sheehan, with regard to transportation projects under the COVID-19 legislation. \$350 billion is supposed to go out under the new American Rescue Plan. I think only about \$50 billion or \$65 billion of that has gone out so far.

My State of Ohio wants to use some of this for infrastructure. Are you finding that is true with regard to other States?

Ms. SHEEHAN. I thank you for that question. And yes, we are hearing the same thing here in New Hampshire and across the country. During the pandemic, many of our Governors were forced to implement stay-at-home orders, and as a result we saw less travel on our transportation network. That meant there was a significant reduction in revenue at the State level.

Many of our States also support municipal transportation investment. Here in New Hampshire, 12 percent of the revenue that we collect goes to cities and towns. And so we would very much anticipate the American Rescue Plan dollars being used to both advance projects that have been put on hold because of revenue uncertainty, as well as to increase the investment.

Senator PORTMAN. So under the current law, it can be used for broadband and water infrastructure, but not for those roads and bridges you are talking about. So would that be helpful to be able to use that funding? And is there a way we can get credit for that?

In other words, as we are asking about how do we pay for new infrastructure, roads, and bridges, wouldn't this be a good example of how we could take some already appropriated funds and attach them to new infrastructure spending by changing the law?

Ms. SHEEHAN. So here in New Hampshire, we are closely examining the guidance that came from the U.S. Treasury in terms of the allowable uses of the American Rescue Plan dollars. But yes, our goal is always to stretch the value of the Federal funds that are provided to State DOTs and look at all the different financing and funding options to make sure that we can maximize the opportunity.

Senator PORTMAN. In New Hampshire, would you use the Federal money if you had to do more than a 20-percent match? Normally it is a 20/80 match, most of the grant programs. What if it was a 30/70 match? Would you still be interested in using the money for infrastructure?

Ms. SHEEHAN. Well, here in New Hampshire it is a little bit different for us. We primarily use toll credits to match our Federal programs. But we certainly would be looking at opportunities to access discretionary grants, perhaps with additional relief dollars.

The more flexibility we have, the more opportunity to extend the value and compete, as well, for additional discretionary opportunities.

Senator PORTMAN. Yes. Well, I will tell you, in some States like Ohio, there is a strong interest in this, and it sounds like New Hampshire is in the same situation. I hope we can use some of this funding as a way to help close some of the gaps we will have in terms of funding.

The other is the P3s. I guess, Commissioner, you are probably a good person to ask about this too, but also our representative, Commissioner Buch, from the National Association of Counties: what can we do on the Federal level to incentivize the use of P3s?

Right now, as I understand it, there is value-for-money analysis, sort of like a cost/benefit analysis, that is used to evaluate whether traditional public financing works better or a P3 structure of public-private partnership. And the States are not required to use this analysis for every project in the transportation improvement plan. Should we be encouraging its use to try to drive the use of P3s more for project financing? Would that help pay for infrastructure?

Ms. SHEEHAN. So certainly, in the State DOTs we have been embracing the concepts of asset and performance management. So we are looking at the cost/benefit analysis around different investment strategies. And certainly, the P3s are a powerful tool, and those opportunities to partner with the private sector to increase the investment in transportation are extremely attractive.

Senator PORTMAN. How about the National Association of Counties? Quick answer to that. Is that interesting to you, to try to encourage P3s more?

Ms. BUCH. It would definitely interest counties to know that there are these options available. And the more variety, the more tools in our toolbox, the more that we can find programs that will fit and can help implement our infrastructure and transportation needs—

Senator PORTMAN. Okay. Thank you very much.

Dr. Kile, you detailed some Federal financing options available to States and localities, like Federal infrastructure banks. Can you talk for a second about the differences between expanding TIFIA, which we used in Ohio and elsewhere, as opposed to creating a new Federal infrastructure bank?

Dr. KILE. Sure. So, expanding TIFIA would allow more State and local governments to borrow money to finance projects that would be partly financed by private money. And State infrastructure banks tend to be capitalized by either their own money, or grants from the Federal Government. Those then operate like a bank for infrastructure projects.

Senator PORTMAN. So could the infrastructure banks pick up some of the gap that is left right now with regard to TIFIA funding? In other words, is it helpful over and above TIFIA funding?

Dr. KILE. I think we would have to look at the specifics of a particular proposal to provide more information on that.

Senator PORTMAN. On TIFIA, what would the economic incentives of creating a national infrastructure bank do with regard to

other financing options, like tax-exempt bonds, which are used regularly?

Dr. KILE. So I think different entities would look at the options available to them, recognizing that any loan needs to be repaid with future tax revenue or user charges.

The CHAIRMAN. Senator Portman, we are going to have to move on.

Senator PORTMAN. Thank you, Mr. Chairman. I appreciate it. Thanks for the information.

The CHAIRMAN. I look forward to working with you.

Senator Cassidy?

Senator CASSIDY. Thank you, Mr. Chairman.

I am going to pick up a little with where Senator Portman was. Let me first go to Ms. Sheehan. I am told that PPPs typically only work if you have an adequate volume of traffic. So for example, Virginia and Maryland just had a PPP coming out in which they are going to expand the Beltway, not using a dime of Federal taxpayer dollars, because the volume is so great on those roadways. But in the rural areas, or the not-so-rural areas—in Louisiana, there are only one or two places I am told that such a PPP driven by tolls could adequately self-fund.

Is that kind of your impression as regards the limitations of a PPP?

Ms. SHEEHAN. While it is unlikely that a rural or a smaller-scale project would generate adequate revenue to directly pay the debt service associated with public-private partnership financing, it is not always a deterrent in terms of pursuing these options.

The State DOTs are looking at their entire program, not just the individual projects. There is still some opportunity. As an example, the Pennsylvania DOT did embark on a P3 initiative to address numerous structurally deficient bridges across the State.

But you are correct. In the majority of cases, you need to have that sustainable source of revenue to pay the debt service on the financing. And so it is used much more heavily for toll road investment, and for investment—

Senator CASSIDY. Let me stop you. I do not mean to be rude, I just have limited time.

Dr. Kile, one thing that I have observed that has happened in Australia is that the Federal Government would put up a pot of money where a local or provincial government—I forget what they have—could get an underwriting of an attempted PPP, with the proviso that any sale of an asset, or lease of an asset, that money would go back in to the infrastructure, setting up a virtuous cycle.

Are you familiar with what Australia did?

Dr. KILE. I have heard of it, but we have not studied it carefully.

Senator CASSIDY. Got you. So in principle, knowing that this would be kind of an intuition, and I do not hold it for you otherwise, that if what we have heard from New Hampshire is that there is a limit as to the applicability of PPPs on a more rural setting, or a less urban setting I should say, if there was a kind of underwriting by the Federal Government, that would be a way to address that which we just heard would be a limitation. A fair statement?

Dr. KILE. So I think, yes; I think anything that draws on private money is going to be drawing on investors who are expecting a return of some sort. And that return ultimately would either come from some sort of user fee or tolls or a future—

Senator CASSIDY. I accept that. But if 30 percent of your overall cost of the project is financed by something from the Federal Government, the user fees only have to pick up the remaining 70 percent, which means that either a lower user fee or less volume would still be adequate to give the return that the investors expect to have. Does that make sense?

Dr. KILE. Yes, that sounds right.

Senator CASSIDY. Now let me then ask, what both apparently Australia and China have observed is that, once you set up a virtuous cycle in which the proceeds from a lease or sale are obligated to go back into infrastructure, that in turn sets up more infrastructure development, which in turn sets up more tax revenue and more construction activity—again, a virtuous cycle which builds upon itself.

Is it intuitive to you that that would be the case?

Dr. KILE. So I guess I would come back to, any sort of recycling of revenue is absolutely coming from either a future government or users. I do take it that increased investment in infrastructure would have generally a positive effect on the economy.

Senator CASSIDY. So it would be more than zero sum. It would actually be something which would again be like a soufflé rising, if you will. The more economic activity related to infrastructure, if there is pent-up demand, would increase economic activity. Does that make sense?

Dr. KILE. Yes. And so I do think that we have—it has been long said that increased investment in infrastructure would tend to increase the capital stock, and that would—

Senator CASSIDY. So what can we do to encourage—I guess my final question—what can we do to encourage States and localities to do so-called “asset recycling”? And maybe I will ask you, ma’am, Ms. Buch. What can we do to encourage States and localities toward asset recycling if we can see that it can establish a virtuous cycle in which it increases economic activity because of reinvestment of leasing and sales proceeds?

Ms. BUCH. Chair Wyden, Senator Cassidy, I have to say that I am not fully familiar with the concept that you are working on, because at the county level we do not necessarily work with that program. But I am happy to work with the National Association of Counties and get back to you.

Senator CASSIDY. Okay.

Senator Wyden, I am out of time, and I yield back. Thank you.

The CHAIRMAN. Thank you, Senator Cassidy.

Senator Warner is next.

Senator WARNER. Thank you, Mr. Chairman. And I want to build on my friend Bill Cassidy’s soufflés and the fact that, in Virginia, we have been on the cutting edge, or bleeding edge, of TIFIA, of P3s, of a whole series of public-private partnerships. And you know, the record is generally good. We have made some mistakes along the way, but we actually have, I think, a very good record. It is one of the reasons why, literally for close to 10 years now,

starting with Kay Bailey Hutchison and with Lindsey Graham, I have been working on creating a national infrastructure financing authority. It is called The Repair Act. My lead is Senator Blunt on the Republican side. Senator Cornyn has been a long-time supporter.

And what this would set up—because we are the only major industrial nation in the world that does not have this kind of national infrastructure financing program. We have one-off programs like TIFIA, or WIFIA, but we do not have a comprehensive approach.

The Repair Act, which would only go towards investment-grade projects and initial appropriations of \$10 billion, would generate \$300 billion in projects. Obviously, as has been mentioned, this is—these dollars need to be repaid. But when we are looking at record-low interest rates and the ability of the full faith and credit of the United States to get 40- or 50-year money, I think we are making a huge mistake not taking advantage of it. And I hope this will be a component part of the President's plan. I know my Republican friends have raised this with the President, and I hope it starts to get some traction.

One of the things that I think is important—and I am going to go to Ms. Sheehan and Commissioner Buch in a moment—is not only the ability to do these projects, but the ability to bring in to a central place at the Federal level the structuring expertise that, candidly, TIFIA alone or WIFIA alone or some of these side programs, do not have.

And I do think, if we can bring that expertise that can go toe-to-toe with Wall Street, that can go toe-to-toe with the private-sector financiers, the chances of getting the public sector a better deal go way up. I think too many times smaller jurisdictions have turned down this proposal because they just thought it was too complicated. But if we had that centralized expertise, I think this would become available to many more jurisdictions. And as a matter of fact, our Repair Act has a rural set-aside.

So, Ms. Sheehan, and then Commissioner Buch, could you talk about, particularly for smaller jurisdictions, if we had this centralized expertise along with this long-term capital out there at a market or below-market interest rate, how this could be better used for smaller jurisdictions that right now are bypassing some of these programs? Ms. Sheehan, we will start with you.

Ms. SHEEHAN. So, Senator Warner, I really appreciate all of the various financing mechanisms that are available to State DOTs, and to the municipality that we work with. But these programs are complex, and it can be challenging to understand which financing mechanism would be the most advantageous for your particular project.

So this is an intriguing idea, to have available to both States and localities a resource where they could ensure that they are receiving appropriate guidance on how to most successfully finance their projects and reduce the cost of borrowing and, most importantly, increase the value of the investment that is being made.

So I think it would be particularly beneficial to municipalities that struggle even more than we do at the State level in terms of

getting access to resources, to understand the opportunities available to them.

Senator WARNER. Commissioner Buch?

Ms. BUCH. Senator Warner, I find this concept extremely appealing. From a county level, our public works department that carries out many of these transportation projects is on a fee-for-service model. And if permits are coming in, we are able to pay for that staffing. If they are not, that staffing is not there.

So the technical expertise portion would be extremely helpful, because there is no extra money in our general fund to add staff for these larger projects, unless it is built into the project design and pro forma.

Senator WARNER. Well, I appreciate both of you. I do think we sometimes look at these from a pro forma basis and we do not factor in the expertise that we need to have to assist States and localities. This is complicated stuff. Wall Street brings their first team. We need to have an equal quality team.

And, Mr. Chairman, I think this is a tool that ought to be used. It can be used for broadband. It could be used for financing electric charging stations for electric vehicles. And my hope is that—I know the President expressed some interest that this will be part of a package going forward.

Thank you, Mr. Chairman.

The CHAIRMAN. I look forward to working with you.

Senator Lankford is next.

Senator LANKFORD. Mr. Chairman, thank you very much.

Dr. Kile, let me ask you a couple of quick questions on some of your testimony. You had mentioned that with general transfers into infrastructure spending, or from things that have a pay-for from general transfer, that that has the potential to actually slow our economy, when infrastructure construction typically increases our economy. Adding additional debt, adding just the transfers without pay-for has the potential to slow that. Can you go into greater detail?

Dr. KILE. Any investment in infrastructure is likely to build the capital stock. And if those are well-selected projects, they would tend to grow the economy as well.

As the government takes on more debt or general obligations, that is debt that needs to be serviced in the future. So far, interest rates have been low, and the question is whether and how long that will be the case.

Senator LANKFORD. Because that could have the potential then of, once interest rates continue to climb and the debt continues to climb—so you seem to be affirming having something that is paid for is very important rather than just a general transfer in something that is not a pay-for, or having a pay-for that is not legitimate.

Dr. KILE. Well, so the general transfers obviously are partly funded by debt, and increases in debt need to be serviced. So, yes.

Senator LANKFORD. Dr. Kile, there have been some questions about electric vehicles. Currently electric vehicles get a tax credit for the purchase of those vehicles, and then they also drive on the roads for free. I know these are lighter-weight vehicles typically, and so they are like other passenger cars as far as the damage they

do to the roads. But passenger cars do pay a fee to be able to be on the road.

The electric vehicles—I think you quoted about \$200 million in income, which is no small amount, if they were just to be able to pay their fair share. Now electric vehicles are predominantly owned by the top 1 percent wealthiest Americans, because they are incredibly expensive vehicles. And one of the perks for being one of those wealthy Americans is also you get to drive on the road and not pay a user fee if you buy an electric vehicle.

Do you anticipate over the next several years that user fee would grow with the use of electric vehicles? Or do you anticipate that \$200 million a year that would come in if electric vehicles paid the same as gas vehicles to be able to be on the road, do you think there is an increasing amount of electric vehicles coming, and so that amount of \$200 million would increase?

Dr. KILE. I think over time it probably would increase. Right now, electric vehicles account for about 1 percent of the vehicle fleet, and about 2 percent of sales. And as they grow as a share of the vehicle fleet, any tax or fee applied to them would tend to grow.

Senator LANKFORD. What does CBO anticipate as the size of the fleet growing over the next 10 years for electric vehicles?

Dr. KILE. We would have to get back to you with specifics on that. At the end of 10 years, it still would not—at current growth rates, it would not be a huge share of the vehicle fleet.

Senator LANKFORD. Less than 5 percent, you would anticipate?

Dr. KILE. That, I do not know.

Senator LANKFORD. Okay. Well, thank you.

Ms. Sheehan, let me ask you about other cost factors. Are there regulatory issues that also increase the cost of construction—as you are tracking that as well—that we should also address while we are dealing with the different ways of paying for things? And are there also ways to decrease the costs that would have an effect on you?

Ms. SHEEHAN. For many years, Senator, AASHTO has been advocating for further streamlining of the project development process. It is challenging to navigate all of the Federal regulations and deliver a project in a timely fashion. And so, we would welcome any opportunities to continue looking at ways to shorten the design phase of projects so that we can get them into construction and make those improvements that communities and stakeholder are eagerly awaiting.

Senator LANKFORD. The categorical exclusion issue of allowing States more flexibility with those dollars, was that something helpful to you in the past, or something that would be helpful in the future?

Ms. SHEEHAN. It is very helpful to have some flexibility and to allow State DOTs, where it is appropriate, to take on more direct responsibility so that we have that ownership over the environmental process. It does not mean that we are going to circumvent the law in any way, but that we can help expedite things by reviewing documents internally versus having to submit them to Federal agencies for their consideration.

Senator LANKFORD. Thank you.



Ms. Bloomfield, let me ask a quick question about broadband. We have some areas that are very remote so that it is exceptionally expensive to be able to reach some of those areas. Would you encourage the prioritization of some of the highest-cost areas so that they would get satellite connection in those areas, and that we would give fiber a new priority for where we have more folks in rural areas?

For instance, we may have a rural community with 50 people in it, and that we could get fiber to, but then there is the last 3 or 4 people 10 miles out of town that may take up to \$10 million to get fiber to them. Would you encourage a blending of those to get coverage?

Ms. BLOOMFIELD. I will be very frank with you. I do think that there are certain—every tool in the toolbox has to be put on the table when we talk about connecting all Americans.

I do think it is really important to think about making the wisest use of Federal dollars. I would also say that people jump to the fact of fiber and its cost factor, but using fiber is actually cheaper in the long run over many technologies, including those that are going to fuel 5G.

I also think with satellite, we have to really be clear about the capacity a satellite will be able offer, and the up-front cost. And even with line-of-sight, you have some geographic issues.

So again, I think that every area has to be viewed, but I do think we should be looking at least to see where we can put that future-proof technology.

Senator LANKFORD. Thank you.

The CHAIRMAN. Thank you, Senator Lankford.

Next will be Senator Daines.

Senator DAINES. Thank you, Mr. Chairman. Thanks to our witnesses.

I would like to start off first by saying we should not be looking to reverse the Tax Cuts and Jobs Act as a way to pay for the infrastructure package. I also do not believe we should be raising the gas tax, because that is disproportionately harmful to rural States like Montana.

Personally, I think extending the cap on the State and local tax deduction, which expires at the end of 2025, is something that we should look at, because that raises hundreds of billions of dollars. It should be a great pay-for. I hope it is seriously considered as discussions move forward.

With that, I would like to turn briefly to the topic of broadband access. Over the last year, we appropriated billions and billions of dollars for broadband. In rural States like Montana, increasing connectivity is critical. But at this point, it is not necessarily just a money issue; it is an access issue.

All the money in the world means nothing if it takes 3 years to get a permit or a license to cross Federal land. In States like Montana, Arizona, and others, it is nearly impossible to lay down fiber without having to call a Federal agency for access.

And that is why Senator Kelly and I have introduced the bipartisan Accelerating Rural Broadband Deployment Act that will help speed up the process for gaining access to Federal right of ways to deploy broadband.

A question for Ms. Bloomfield. Your members know better than anyone else how difficult it can be to build out in rural States like Montana. Would you explain why my bipartisan bill needs to be an important component of any broadband infrastructure package?

Ms. BLOOMFIELD. Absolutely. So you know better than most people, Senator, that high costs are enough of a barrier in deploying broadband in some high-cost States like Montana. But I will share with you—you know, the initiative that you and Senator Kelly began, by introducing your Accelerating Rural Broadband Deployment Act, is really critical. Because what we have found is that, even these who are getting—whether they are using universal service funds, whether they are using the USDA ReConnect funds—we are finding that they are getting tied up in that bureaucratic paperwork, you know, coordinating different programs, not having shot clocks.

And it is amazing how things like railroad crossings or crossing Federal lands really can tie up deployment. And that is becoming even more critical as we are finding that supply chain issues are coming to the forefront. Because you may have a carrier out there ready to build. Suddenly their ReConnect money is held up by 6 months, 9 months, going through some of these reviews.

They are not sure what is happening. And meanwhile, they have lost the window to either build, if you are in a State like Montana where your build time is a lot shorter than it is in southern States, or you have lost the capacity to get access to some CPE equipment, or to fiber.

So what you have done with your legislation is really important. We strongly support it. And I think that it is going to really increase transparency in the regulatory process.

Senator DAINES. Thank you, Ms. Bloomfield.

I want to pivot and talk a bit about speed. There is a lot of talk about speed. Some think 10/1 is too slow, or 25/3, the upgrade. I will say those—if you are a Montana rancher with 0/0, there is no connectivity at all. They have been left behind because Federal funding keeps going to upgrade under-served communities instead of connecting those that are completely unserved.

Ms. Bloomfield, do you agree that Federal dollars should prioritize connecting the unserved rancher or community before upgrading a home so they can stream three Netflix movies at the same time, instead of just two?

Ms. BLOOMFIELD. So I would like to think they are doing more productive things than streaming. Maybe somebody is working on a VPN. But I will say, absolutely. We have some work to do to connect all Americans. And I think for new construction, using Federal support, we absolutely should be using the mapping that the FCC is coming down with now, consistently across all States, to find those unconnected and make those the top priority.

And then we can look to make sure that we continue to upgrade and sustain the networks going forward.

Senator DAINES. Ms. Bloomfield, thank you.

And, Mr. Chairman, thank you as well.

The CHAIRMAN. Thank you, Senator Daines.

Senator Hassan is next.

Senator HASSAN. Well, thank you, Mr. Chair and Ranking Member Crapo, again for having this hearing. And good afternoon, Commissioner Sheehan. It is really nice to see you.

I do want to ask you a question. You talk about the importance of a long-term reauthorization of Federal surface transportation programs for infrastructure projects in New Hampshire. Short-term extensions could disrupt these projects and impact our workforce, our economy, and our road safety.

So can you give us examples, Commissioner, of projects in New Hampshire that would be disrupted by a short-term extension of surface transportation programs, and how a short extension would impact New Hampshire's economy?

Ms. SHEEHAN. Well, thank you, Senator. It is great to see you as well this morning.

Any interruption in the Federal surface transportation program would have devastating consequences, especially in a cold-weather State like New Hampshire with a relatively short construction season. The inability to advertise projects in the fall and winter can mean that we would lose the majority of the entire construction season. So even a short-term extension could have longer-term impacts.

We have projects of all types and sizes that we would plan to advance, from important resiliency work like scour mitigation on some of our critical bridges, to investments in intersection safety improvements and guard rail upgrades. And then there are numerous projects that are tremendously important to communities. We have a lot of transportation alternative funding that is anticipated to be utilized with projects being advertised in the first quarter of the next Federal fiscal year.

So we really want to be able to deliver on those commitments, which is why a timely reauthorization is so important.

Senator HASSAN. Well, thanks so much. And again, thank you for your leadership and for the work you do, and I look forward to seeing you back home in person soon.

I want to move to a question for Ms. Bloomfield. Ms. Bloomfield, broadband is a necessity for families and small businesses in the 21st century, and you have surely been making that point this morning.

Today I reintroduced the Broadband Financing Flexibility Act, a bipartisan bill with Senator Capito, that would expand tax-advantaged financing tools for rural broadband projects. Our bill would make it easier for State and local governments to work with private partners and finance high-speed rural broadband projects through tax-exempt bonds.

How would these kinds of financing tools encourage private-sector deployment of high-speed broadband to rural areas?

Ms. BLOOMFIELD. I congratulate you on your initiative. I think it is really—I think it is an exciting initiative. I think that we have not seen a lot of our community-based providers utilizing bonds, but I think that if there is the ability for private providers, again community-based providers, to be able to access some of these bond funds, I think that could be, again, another piece of figuring out ways to actually make what is a tough business model a go, particularly because we are seeing in some areas a lot of partnerships

where local municipalities and governments are reaching out to our community-based providers to say, “We have a broadband void. How can we work together to actually build a network, letting the municipality potentially handle some of the financing and work with the bonds, and letting the broadband provider actually provide the broadband?”

So I think that your initiative to focus on communities that need broadband access is really critical. The fact that you are looking to use funding for future-proof networks is really another positive. And I think the bonds themselves will help up front, with up-front deployment.

I think the next question then becomes, how do you sustain it after you’ve built it? But we can cross that bridge after we get some of these networks built. So again, we commend you for your leadership.

Senator HASSAN. Well, thank you for that. I have one more question for you which focuses on, again, rural broadband. The year-end relief package contained my bipartisan bill with Senator Grassley to extend the deadline for State and local governments to use relief funds for broadband and other infrastructure projects.

Through the American Rescue Plan, States and localities will soon have access to additional assistance that can be used for rural broadband projects.

Ms. Bloomfield, how has the State and local relief fund to date helped expand rural broadband connectivity? And what lessons from the past year can we apply to supporting rural broadband connectivity going forward?

Ms. BLOOMFIELD. Well, first of all, I have to thank you for extending, because when the CARES Act went through, everybody was very excited to see this additional funding coming out that they could use on the State level, and so many States did agree to allow the CARES Act funding to be used for broadband.

But suddenly that clock was ticking. And you know, if you were not in line for fiber, you were not in line for some of the equipment, that deadline just became a barrier. So extending it became very helpful.

What I think some of those initiatives have done has really prompted States that did not have State broadband programs to now create their own programs. So that partnership, I think, is really going to be important, having the Federal programs that exist partnering with the State programs that probably, in a lot of ways, know best where those gaps are within the State. That is the way we are really going to bridge this digital divide.

Senator HASSAN. Thank you very much. I appreciate it.

Thank you, Mr. Chair.

The CHAIRMAN. Thank you. And thank you for your good work on broadband, Senator Hassan. As Ms. Bloomfield knows, we put a lot of work into trying to get that \$50-a-month subsidy, and we are seeing people step forward. The point is, in this country we have to get to the point where broadband is like electricity was years ago, where we said everybody has to have it. And we are really glad that Senator Hassan is leading our committee on that.

Next is Senator Barrasso.

Senator BARRASSO. Well, thanks so much, Mr. Chairman.

You know, infrastructure is important to every State. It is important to every community. It is important to every tribe in the country. America's roads and bridges, highways, and tunnels support the Nation's economic growth and our competitiveness.

Our economy is built on a well-functioning road system that allows products from rural areas to get transported to our population centers. We ship American-made products and goods from one coast to the other. Interstates like I-80 in my home State of Wyoming are critical arteries for commerce in the country.

Our roads create jobs. They move products. They keep our country running and going strong. Roads and bridges have to keep pace. The systems are vital to our country, and they need to be maintained, and they need to be taken care of. We need to maintain and upgrade and, where necessary, build new ones.

The highway trust fund is funded through user fees. Those who use the roads pay for their upkeep. The most famous example of course is the gas tax, which represented over 25 percent of the highway trust fund tax receipts in 2019.

A number of users of our roads, bridges, and highways do not pay anything for their upkeep. And right now, electric vehicles do not pay a cent to maintain America's roads. These vehicles do not contribute because they do not buy gasoline.

The gas/electric/alternative fuel vehicles all use the same roads. They put the same amount of wear and tear on those roads. Every driver really should contribute to maintain our highways.

My priority is to make sure these vehicles are contributing to the maintenance of the roads, especially as their use continues to increase from year to year. And you have seen the predictions that by the end of this decade, 8 percent of vehicles on the roads will be electric vehicles, but by 2040, over 30 percent of the vehicles on the roads will be electric vehicles.

So with the rapidly growing electric vehicle market, it is necessary to make sure that drivers of these alternative fuel vehicles are contributing to road maintenance. An electric vehicle does as much damage to the highway as a traditional gas-powered vehicle that has the same number of axles and weighs the same.

Everyone who drives on the roads should contribute to the cost of the maintenance. That is why I plan to introduce legislation to ensure all users of our roads, bridges, and highways contribute to the upkeep.

So I have a question for the Congressional Budget Office, for Dr. Kile. I appreciate your response to Senator Lankford regarding an EV user's fee. I agree with him that \$200 million is a substantial amount, especially in rural America.

I would like to shift to getting your thoughts on the electric vehicle tax credit. The Joint Committee on Taxation has said that this credit disproportionately subsidizes higher-income earners. Rather than subsidizing the wealthy, these funds might better be utilized by investing in roads and bridges and highways.

Can you speak to the possible revenue saved by repealing this Federal tax credit for purchasing electric vehicles?

Dr. KILE. Senator, we would be happy to get back to you on that, or work with our colleagues in the Joint Committee to come up

with an estimate of that. I do not have a number on that for you this morning.

Senator BARRASSO. So, as far as funding our highways, couldn't Congress direct these savings and future savings to fixing our roads and bridges and highways?

Dr. KILE. Congress could do that, yes.

Senator BARRASSO. Thank you. You know, the chairman has released a tax bill that would extend the electric vehicle tax credit until electrical vehicles represent over 50 percent of vehicle sales.

This extension could, I believe, cost lots of money that could be used for actual infrastructure spending, instead of subsidizing vehicles for the wealthy. Can you speak to the additional cost of such massive extension of this tax credit to the point when electric vehicles represent over 50 percent of vehicle sales?

Dr. KILE. Again, Senator, we would be happy to work with our colleagues on the Joint Committee on that, but I do not have an estimate of that.

Senator BARRASSO. Okay. Thanks, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Barrasso.

Next will be Senator Cortez Masto.

Senator CORTEZ MASTO. Thank you, Mr. Chairman, and thank you to all the panelists for this great conversation. Let me jump in on the broadband conversation.

I am from Nevada. We definitely have under-served communities in our urban and rural areas, and I want to thank so many of you for really the good work that you are doing to make sure we are bringing service to these communities.

Ms. Bloomfield, let me start with you. We have been talking about the need for a strong oversight role to ensure that we are properly investing billions into broadband access, as well as sufficient coordination across all of our Federal agencies. And I could not agree more.

That is why I worked to pass the bipartisan ACCESS BROADBAND Act in the year-end package last year. Can I get your support for the proper and sufficient implementation of this legislation to ensure that not only do we have an easier Federal broadband funding system for our providers and communities, but that we also track each dollar to ensure its efficient use?

Ms. BLOOMFIELD. Senator, you were like a visionary when you had that passed. Little did you know all of these programs would be coming down. So I would say that what you put together in your legislative package, talking about streamlining these Federal broadband programs—of which there are many—and improving the Federal agency coordination, are really both very key efforts.

So I would share with you that we look forward to helping to work with you, with Congress, with NTIA, anything that is needed to make sure that all of these current existing and upcoming new programs on broadband stay coordinated.

Again, we are seeing things happening on the State, on the Federal level, all across these different agencies, and ensuring that there is real operational coordination, I think is really going to be the smartest use of Federal funding.

So again, absolutely we support your efforts. And we are eager to get this up and running and to make it successful.

Senator CORTEZ MASTO. Thank you. And thank you again for your partnership as we have worked together, particularly in the State of Nevada, to really bring broadband into our communities.

And I have to thank NACo and the League of Cities. They have been at the forefront in informing me on this legislation, based on the needs in our communities. And let me just finally say to my colleagues, in the 2018 farm bill we were able to pass a bipartisan provision to really stand up an effective innovative rural council that leverages beneficial investments across all of our multiple departments.

That is intended to work through the permitting challenges that we are talking about today. So I am hopeful that that gets set up and we continue to work together. So thank you. Thank you so much.

Commissioner Buch, thank you for being here. I am partial to our cities and counties because I worked as an assistant county manager in Clark County for a number of years. And my father was a county commissioner. And so I always believe that you guys are on the forefront and we should make it flexible for you to utilize these dollars. You know better than anyone what is needed in your communities.

Let me ask you this. I have introduced a bipartisan bill called the Moving FIRST Act to create a Smart Communities Challenge grant at the U.S. Department of Transportation. Listen, it is an exciting time for us. We are going into an innovation economy that includes taking this new technology that is going to improve our communities, our transportation. As one of my colleagues in Nevada has said, this technology is the new asphalt for the future.

And so, can you speak to what you are seeing at the local level, and why you support expanding the transportation and technology partnerships that we are seeing become more popular across the country?

Ms. BUCH. Senator Cortez Masto, thank you. Thank you for the work that you have done on that bill. Counties and NACo support the bipartisan legislation of the Moving FIRST Act.

Counties support transportation technologies that will help us meet the transportation demands of the future and improve the safety and efficiency of our local roads. Counties support Federal incentives to promote nationwide energy conservation efforts, including tax incentives, rebates, and promotions that will promote the purchase of low- and no-emission vehicles by both the public and the private sector.

Senator CORTEZ MASTO. Thank you so much. I really appreciate this conversation. And thank you to the chairman, again, and to the ranking member. I yield the remainder of my time.

The CHAIRMAN. Thank you, Senator Cortez Masto.

Next will be Senator Warren, if she—there she is.

Senator WARREN. I am here. Thank you, Mr. Chairman.

So the COVID-19 pandemic has underscored how crucial infrastructure is to making our economy and our communities work. And that includes the roads and buses that Americans take to work or to schools, but it also includes the child care that allows parents to go to work, and the high-speed Internet that our kids rely on for their studies.

And yet, our investments in all of that vital infrastructure have been both inadequate and inequitable. So take our roads, which earned a “D” on the most recent infrastructure report card from the American Society for Civil Engineers. One out of every five miles of American highways and roads is in poor condition.

So we are failing to adequately fund basic road maintenance and repair, much less invest in transit modernization and electrification. It holds back our economy. This contributes to climate crisis. It harms public health, especially in minority communities.

Ms. Sheehan, you have worked for over a decade on public transit, including bridges and highways in Massachusetts. So let me ask you, would large-scale investments in transit electrification help communities across the country?

Ms. SHEEHAN. Well, thank you for that question, Senator. And the answer is “yes.” Transit agencies and DOTs are embracing electrification. I believe at this point transit agencies in over 40 States have chosen to pursue electric bus purchases, despite the higher initial purchase prices. The benefits justify that additional investment, with significant cost savings in terms of operation because of the increased fuel efficiency. So, it’s about a 78-percent lower lifetime fuel cost compared to traditional vehicles. But most importantly, these vehicles are quieter, and there is a 100-percent reduction in emissions, which improves quality of life for everyone who lives adjacent to public transit routes. So we are continuing to pursue these investments.

Senator WARREN. So thank you. That is very helpful, Ms. Sheehan. Here we are falling behind on these investments. We need to go big to combat climate change and to grow our economy.

Now President Biden has proposed investing \$174 billion in vehicle electrification, which is a good start. The Build Green Infrastructure and Jobs Act that I introduced with Senator Markey and Representatives Levin and Ocasio-Cortez, would invest \$500 billion over 10 years to help us get to all-electric public vehicles and rail.

My forthcoming Buy Green Act with Congressman Levin will establish a further \$1.5 trillion in Federal procurement to purchase American-made clean energy products for Federal, State, and local use, and for export.

Ms. Buch, let me ask you, you work with local governments all across the country. Can we rely on local government to generate the revenue needed to make these big investments in transit modernization and electrification? Or does the Federal Government need to step up if we are going to make this happen?

Ms. BUCH. Senator Warren, well, we are doing our part on the local level. Counties are limited in a variety of ways from raising any local revenue. We rely on the strength of the intergovernmental partnership to deliver these critical infrastructure projects that our residents need and expect.

Counties urge Congress to direct funds to locally owned infrastructure that will allow us to better meet the needs of our community.

Senator WARREN. Good. Thank you. I agree with you on this.

President Biden has proposed raising taxes on the wealthy, and on giant corporations, to pay for these vital investments in our Nation’s infrastructure. Meanwhile, Republicans have proposed impos-



ing user fees and fuel taxes, rather than raising taxes on the wealthy and on big corporations.

So, Dr. Kile, let me ask you a question around this. Let's assume that a school teacher making the average teaching salary in Massachusetts, and a CEO making millions of dollars a year, both have the same distance to drive as their commute to work. And they use the same number of gallons of gas a year. Which one of them pays more as a share of their income when we pay for infrastructure investments by imposing a gasoline tax?

Dr. KILE. Senator, gasoline taxes tend to be regressive, in that they impose a larger burden in terms of share of income that goes to pay for those taxes on people in the lower- and middle-income quintiles than they do on the upper-income quintiles.

Senator WARREN. You just said in a fancier way that the school teacher pays more as a share of his or her income than the wealthy person does if you use these user fees? I hope I got that right. Is that right, Dr. Kile?

Dr. KILE. Yes. In the scenario you had, that is correct.

Senator WARREN. Good. You know, it is absurd to suggest that we should finance this investment on the backs of school teachers and firefighters and small business owners.

President Biden and I have both put forward full menus of options for paying for these long-overdue investments in our shared infrastructure options that are not going to hurt the very people who are struggling the most to recover from this pandemic.

My wealth tax, Real Corporate Profits Tax, and tax enforcement plan, those three things would raise \$6 trillion without raising taxes on 99.9 percent of Americans by a single penny. And that is enough to pay for every penny of President Biden's American Jobs Plan, to pay for every single penny of his American Families Plan, and to still have \$2 trillion left over.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Warren.

Senator Cantwell, with significant responsibilities in transportation as the chair of the Commerce Committee, is next. Senator Cantwell?

Senator CANTWELL. Thank you, Mr. Chairman, and thanks to the witnesses for this important hearing. I just want to clarify, before I get to those transportation issues, you, Mr. Chairman, and I and my colleagues Senator Young and Senator Portman, have introduced legislation increasing the Low-Income Housing Tax Credit. All our States face incredible shortages of affordable housing, so continuing to push the tax credit increase to 50 percent over the next 2 years could help us deal with this crisis. We are not really avoiding it; we are still having to deal with a population without housing options and thereby causing increased costs in health care and a whole variety of issues.

So we have introduced legislation, and I wanted to ask the witnesses—Ms. Buch particularly—do you consider a housing tax credit part of critical infrastructure that we need to build in the country? And would you support the funding of affordable housing tax credit increases?

Ms. BUCH. Senator Cantwell, thank you so much for the question. We appreciate your work to increase the supply of affordable

housing, and utilization of the low-income tax credit. Counties support reducing the Private Activity Bonds threshold from 50 to 25 percent. And what I would like to add to that is that we need to concurrently be able to increase the capacity of our project developers to be able to fulfill the actual projects that that pipeline will fill.

As a former project developer for an affordable housing provider myself, I can tell you that there is not a streamlined educational tool to train project developers. And so they usually come in very green into an organization, and the pipeline is very thin.

Senator CANTWELL. So we do have a backlog right now, right? I mean, we have more projects that are on the books than we can fund, correct?

Ms. BUCH. The projects are available. The people that are qualified as project developers and managers to actually fulfill the work is where the pipeline squeezes.

Senator CANTWELL. Okay.

Ms. BUCH. They need the extra training and the incentives to build that particular industry base to fulfill those projects.

Senator CANTWELL. Okay, so what are you thinking there as an incentive on that? I mean, listen, I get it. If you are talking about Seattle and you are trying to get—or you know, the whole region, Puget Sound—and you're trying to get somebody to work on those projects, there is enough construction work yet that it is going to be challenging to get somebody to work on affordable housing.

Ms. BUCH. Project developers are more of a liaison between the provider that is actually wanting to develop the work and the construction workers doing the work. These project developers come up with the pro formas, the concept, write the grants, everything that is needed inside the organization to actually put the project forward.

That is the area where I find the most constraint in order to fulfill the affordable housing needs.

Senator CANTWELL. Well, I love what our—you know, there are people all over Puget Sound trying to figure out what to do about affordable housing. I know the same could be probably said in Oregon, in the Portland area, but we are not going to get out of this without the Federal tax incentive being increased.

The majority of affordable housing projects that get built get built with the tax credit. So if we are not increasing the available credit, no region is going to be able to successfully get out of this predicament that we are in. And I definitely think it is an issue of us not meeting demand. We have just, for a bunch of different economic and demographic regions, have had far more people falling into this category of needing this kind of housing. And we just need to meet the demands.

I think we are spending a lot of time discussing, well, how did we get here? And in reality, we just have to meet demand. So I hope that our colleagues will consider this. It obviously is stimulative.

I want to turn to Ms. Sheehan, or actually you, Commissioner Buch. I think people think that, on transportation, we actually can—you know, people have been talking about various things, including user fees, but we really just do not have a sustainable

source for the future. Is that not correct, with where we are on the highway trust fund?

I do not know how much this has come up, Mr. Chairman, already, but I am just trying to get to the point of—we obviously want to build back better, but the larger issue facing us is, we do not have a sustainable fund for the future.

Ms. BUCH. Senator Cantwell, I will take that. As we mentioned in earlier testimony, counties are very concerned about the looming insolvency of the highway trust fund. We encourage our Federal partners to do as much as they can to find a sustainable way to continue to fund that particular method that we as counties rely on in order to fulfill all of the transportation needs for our community.

Senator CANTWELL. So, does any other witness want to take that on? Ms. Sheehan, or—

Ms. SHEEHAN. Senator, I would be happy to respond. Yes, AASHTO acknowledges that we have a significant shortfall to overcome. That is why we are willing to support this committee and Congress, and to evaluate long-term sustainable solutions.

It has been mentioned a couple of times today, but any shortfall or delay in Federal funding leads to serious cash flow problems for States and local governments. And most importantly, we fail to deliver on the projects and the commitments that we are making as part of our public engagement processes.

These are extremely important transportation investments that impact the quality of life and provide economic opportunities, and we need to find a sustainable way to pay for them.

Senator CANTWELL. Well, we have—I firstly, in a bipartisan way, suggested cap and dividend in the past, just because the dividend can keep consumers whole while you are making these investments. And it helps you to mitigate the impact along the way. It has picked up support from business roundtables and chambers of commerce and various organizations. But I hope, Mr. Chairman, that we will focus on this larger issue, because we are on an unsustainable path. For us in the Northwest, we see the incredible growth that is still there as a potential, even post-pandemic, for us. We are seeing congestion at our ports, on our highways. We need to make these investments to stay competitive.

And so, I hope that we will look not just at this very near term, but this unsustainability that we have because the highway trust fund will be, as the witnesses said, reaching a level of insolvency.

So it is time to put us on a good stead for the future. So thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Cantwell, and particularly for highlighting the importance of housing, both for our region and the country.

Our final Senator is our partner in this, Todd Young. So these are bipartisan issues. And not only is Senator Cantwell right about the Low-Income Housing Tax Credit, but I proposed something called MIHTC, the Middle-Income Housing Tax Credit, because I am not convinced, on our current path, that somebody who is a firefighter, and somebody who is a nurse, is going to have an opportunity to be part of the American Dream.

So put me down as being in favor of Senator Cantwell and Senator Young. And Senator Young will be our final questioner.

Senator YOUNG. Well, thank you, Mr. Chairman, and thank you for highlighting the importance of housing affordability. And I thank Senator Cantwell for her long-time leadership in this area. It is a privilege to work with her.

Senator Cantwell also addressed briefly the issue of Private Activity Bonds, which can serve an important role in financing public projects. In fact, for infrastructure mega-projects over the last 15 years, \$12 billion in Private Activity Bonds led to \$45 billion in project activity. So we are looking at almost a 4× return there.

But under current law, our Nation's public buildings cannot qualify for tax-exempt Private Activity Bonds when employing public-private partnerships. Now there are certainly projects beyond those that currently qualify for Private Activity Bonds financing, which is why I recently reintroduced my Public Buildings Renewal Act with Senator Cortez Masto. I am curious, however, how we can further leverage private financing to fund public projects.

Ms. Sheehan, are there opportunities to expand the use of Private Activity Bonds in the transportation space? And do you believe that it is a worthwhile financing mechanism for us to explore?

Ms. SHEEHAN. So, thank you for that question. And yes, State DOTs would be interested in extending any of the current financing mechanisms that are available to us. As I have said in my earlier testimony, we are really trying to, as you described it, stretch the value of the investments that we are making and be able to partner with the private sector to ensure that we can invest at a greater level. And beyond what is available with the revenues being provided, it is extremely important that we can advance projects sooner and hedge against inflation. And there is a strong economic climate for borrowing.

Senator YOUNG. Well, thank you, Ms. Sheehan. I ask that because I am looking for some more creativity as we try to identify ways to either pay for or finance our infrastructure investments.

What we have seen from the Biden administration's proposals is what we frankly might expect from a Democratic President—expensive tax-and-spend proposals. Instead of shackling our free enterprise system with harmful tax hikes as we emerge from a global pandemic, I believe—and I think most of the Hoosiers I represent believe—that we really need to explore creative proposals that are already out there to leverage private-sector dollars.

We should do that before we turn to increasing taxes as we emerge from this pandemic.

Ms. Sheehan, just as a follow-up, what are some public-private partnership proposals you support or think would be useful in improving and developing our transportation infrastructure?

Ms. SHEEHAN. So State DOTs looked at our entire program on all of the projects, in particular the large-scale projects, and tried to determine what the most cost-effective funding and financing solutions might be. And so certainly where public-private partnerships are concerned, we are trying to identify projects that both have a sustainable source of revenue to be able to pay the debt service and support the financing, as well as that reliable source of Federal funding into the future so that we can embark on P3

projects where we use availability payments and are committing our future State and Federal revenues from traditional sources to pay that debt service.

But it is all about delivering the projects sooner. And so we want to make sure that every financing option is available to us, that we have as many tools in the toolkit as possible, and that it is about providing that value to the citizens by advancing the projects to benefit communities and provide economic opportunities.

Senator YOUNG. Thank you, Ms. Sheehan.

I will give Dr. Kile an opportunity to answer the same question. Dr. Kile, what do you support in the public-private partnership space as it relates to transportation infrastructure?

Dr. KILE. Well, of course CBO does not have a particular policy that we support or oppose. We just assess options for you. As far as—

Senator YOUNG. Could you assess some options for me?

Dr. KILE. Sure. Sure. As far as public-private partnerships go, or any of the financing mechanisms, they do allow an opportunity for Federal money to be used to couple with money from the private sector. That money from the private sector is only coming with the expectation of a return at some point, either by revenue from users of whatever system is being financed, or by future payments from a government.

Senator YOUNG. Okay. So why don't we focus on the prior category, as opposed to the latter category. Could you offer some more specificity to some of those options that would yield revenue, which would be used in turn to pay the investors over a number of years?

Dr. KILE. Sir, I am not quite sure—you said the "prior category," and I am not sure what that is.

Senator YOUNG. You seemed to break down public-private partnerships into crowding in private investment on the belief that either user fees of some sort, right, would pay back the investors, or the government itself would pay it back through taxation, presumably, right? Or it could be bonding, but ultimately, you know, that would cost taxpayers.

So could you offer me some examples of the first area, where the revenue alone, as you have seen through real-life examples, pays back the private investors?

Dr. KILE. So there are a bunch of projects, many of them tend to be toll roads, that collect revenues from users, tolls, and that contributes to part of the funding of the project. We would have to get back to you with the specifics of how that funding breaks down by project.

Senator YOUNG. Okay. Well, there is much more to discuss here, but I am already over time. The chairman has been quite generous. So thank you all, and thank you, Mr. Chairman.

The CHAIRMAN. I thank my colleague. And we began almost 3 hours ago with a real dose of strong bipartisanship. I see our friend, the ranking member, Senator Crapo, here. Both of us made it clear that we want to involve the private sector more extensively in terms of infrastructure funding. That is what Build America Bonds are all about. And I note that five members of the United States Senate today were co-sponsors of our original effort, which

in the space of a year and a half sold \$183 billion worth of Build America Bonds.

So the point that my colleagues most recently made in the last few minutes—Senator Young mentioned a role for the private sector, which has already been proven. So we are going to pursue that and all options.

Just a couple of final comments, and then I want Senator Crapo to have a chance to talk as well. The principle of fairness must be front and center in this whole effort with respect to paying for roads.

And just yesterday, *The Wall Street Journal* reported that U.S. companies have authorized \$504 billion of share repurchases. That is stock buybacks, which is the most during this period in at least 22 years.

So what we are going to be explaining to citizens, as working people are trying to figure out how to come out of the pandemic, *The Wall Street Journal* is telling us we are having a record mega-corporation spree in terms of stock buybacks.

So we have to find a way to embed deeply the principle of fairness, because we are all making the point that we have to come up with solutions that are fair. And that means everybody is going to have to be part of that solution.

One last point, and that is, the Finance Committee has some history here, and too often opportunities have been missed. For example, 4 years ago the committee had significant bipartisan agreement that a portion of the hundreds of billions of dollars in repatriated funds from multinational companies as part of the tax bill would go to fund infrastructure.

And we had debates about what percentage it ought to be, but there was a clear bipartisan consensus. And the Trump administration did not want to have any part of that. So I want to invite my colleague from Idaho to say anything, should he choose to do so, but I think this has been a good session.

We want to thank our guests. The testimony was very good. It really stuck to the facts and the record, and I intend to work very closely with Senator Crapo in a bipartisan way. We cannot miss this moment. Too many Americans are depending on our coming forward on infrastructure. Because, as we said 3 hours ago, you cannot have big league economic growth with little league infrastructure.

Senator Crapo, would you like to add anything else?

Senator CRAPO. Yes. Just briefly—and thank you again, Mr. Chairman, for holding this hearing and for the bipartisan effort that you want to work with us on.

There is no disagreement. There is no bipartisan disagreement about the need for a strong, robust effort to strengthen our infrastructure in the United States. And thank you to our witnesses. You have discussed very eloquently and effectively a number of the different specific types of options that we have to look at as we try to find ways to get capital committed to infrastructure in the United States, whether that is through direct spending from the Federal Treasury, whether that is through our tax policy, whether that is through the public-private partnerships, or in other ways that we have discussed today, to incentivize private capital to flow

into infrastructure spending and build out the infrastructure across this Nation.

Once again, I thank all of you for participating and for your input from your expertise as to how this works, and how Congress can most effectively accomplish this goal.

And, Mr. Chairman, I will turn it back to you. Thank you again.

The CHAIRMAN. With that, the Finance Committee wants to thank our guests. One week from today, questions for the record are due from Senators. And with that, the Senate Finance Committee thanks you all, and we are adjourned.

[Whereupon, at 12:58 p.m., the hearing was concluded.]





# APPENDIX

## ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

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PREPARED STATEMENT OF SHIRLEY BLOOMFIELD, CHIEF EXECUTIVE OFFICER,  
NTCA—THE RURAL BROADBAND ASSOCIATION

### INTRODUCTION

Chairman Wyden, Ranking Member Crapo, and members of the committee, thank you for the opportunity to participate in today's hearing focused on funding and financing the Nation's infrastructure.

I am Shirley Bloomfield, chief executive officer of NTCA—The Rural Broadband Association ("NTCA"). NTCA represents approximately 850 rural, community-based carriers that offer advanced communications services throughout the most sparsely populated areas of the Nation. All NTCA members are fixed voice and broadband providers, and many of our members also provide mobile, video, and other communications-related services to their communities. Operators like those in NTCA's membership serve less than 5 percent of the population of the United States, but cover approximately 37 percent of its landmass. As context, the average density of the areas that NTCA members serve is roughly seven subscribers per square mile—roughly the density of the State of Montana. These companies operate in rural areas left behind decades ago when communications networks were first being built out by other service providers because the markets were too sparsely populated, too high cost, or just too difficult to serve in terms of terrain.

Despite these challenges, and driven largely by the commitment to the communities in which they serve and live, NTCA's small broadband providers have been leaders in deploying advanced communications infrastructure that responds to consumer and business demands and connects rural America with the rest of the world. In rural America, broadband infrastructure enables economic development and job creation not only in agriculture, but for any other industry or enterprise that requires advanced connections to operate in today's economy. Yet, for all their progress to date, we still have a lot more work to do in deploying and operating this critical infrastructure. Too many rural consumers still lack sufficient broadband connectivity. And, even where networks exist, operators still face the challenges of sustaining and upgrading them to keep pace with consumer demand and delivering affordable services.

The good news is that NTCA members have led the charge in getting rural America connected. Nearly 70 percent of customers of NTCA's member companies have access to 100 Mbps or better broadband service; on average, roughly the same proportion of NTCA members' customers are connected by fiber despite the very rural nature of the areas in question. The bad news is that not every rural community is fortunate enough to have an NTCA member call it home—and even NTCA members still have work to do to realize their vision of delivering broadband to each and every consumer in the areas they serve. Nonetheless, the efforts of NTCA members and the programs that have supported their success offer important lessons as to what does and does not work when it comes to deploying and then sustaining broadband infrastructure and services. In the remainder of my testimony, I will offer principles and policy recommendations based upon this experience and with an eye toward the objective of ensuring that every American, rural or urban, has access to robust and affordable advanced communications services.

## A HOLISTIC VIEW OF AND APPROACH TO BROADBAND INFRASTRUCTURE

President Biden expressly recognized the importance of advanced communications networks by including broadband within his broader infrastructure initiative. There appears as well to be bipartisan consensus in Congress that broadband should be considered a national infrastructure priority, and NTCA welcomes the opportunity to participate in a further discussion on how best to tackle this priority.

This being said, it is important to consider what investing in infrastructure means. It is not a one-time act of building something and then moving on. The asset being built needs to be maintained, upgraded, and made useful over its entire life, or there is serious risk that the investment will be wasted. In the case of broadband more specifically, it does no good to build a network if the provider cannot afford to operate it and recover the capital used to construct it—and even the very best network is certainly of little use if no one can afford to pay for the services offered atop it. Broadband services must be activated and delivered, maintenance must be performed before troubles arise, customer trouble calls must be answered, “middle mile” capacity to reach distant Internet points of presence must be procured, and upgrades must be made to facilities and electronics to enable services to keep pace with consumer demand and business needs. In addition to these ongoing operating costs, networks are hardly ever “paid for” once built; rather, they are often built leveraging substantial loans that must be repaid or the use of cash-on-hand that must be recovered over a series of years or even decades.

All of these factors make the delivery of broadband in rural America an ongoing effort that requires sustained commitment, rather than a one-time declaration of “success” just for the very preliminary act of connecting a certain number of locations. Particularly when one considers that even where networks are available, many rural Americans pay more for broadband than urban consumers, and it becomes apparent that the job of really connecting rural America—and, just as importantly, sustaining those connections—is far from complete. Federal law mandates that the Federal Universal Service Fund (USF) ensures reasonably comparable services are available at reasonably comparable rates in rural and urban areas alike. This mission cannot be lost as we focus on financing deployment. We must make sure the infrastructure is useful to and useable by the population it is intended to benefit. So while the rural broadband industry and our Nation as a whole have a great story of success in delivering services, we have much more work to do in both deploying and operating networks—and this is where public policy plays such an important role in helping both to build and then to sustain broadband in rural markets that would not otherwise justify such investments and ongoing operations.

As this committee considers tax incentives and bonds to spur broadband deployment, it should keep in mind that while such measures may help in certain areas, it must also overcome how distance and density make it difficult, if not impossible, to justify a business case for infrastructure investment to start in many rural markets. No provider, whether it be cooperative or commercial, and regardless of size, can deliver high-speed, high-capacity broadband in rural America without the ability to justify and then recover the initial and ongoing costs of sustaining infrastructure investment in high-cost areas. If there is insufficient help in the first instance to enable the business case for ongoing operation of networks and providing affordable broadband in rural areas, tax incentives may not by themselves promote meaningful broadband deployment in many rural areas most in need of broadband.

## FUTURE-PROOF NETWORKS

*Meeting Consumer Demand in Decades to Come*

Any resources provided as part of an infrastructure plan should look to get the best return on such long-term investments. For networks with useful lives measured in decades—especially private investments that leverage Federal dollars—this should mean the deployment of infrastructure capable of meeting consumer demands not only of today and tomorrow, but for ten or 20 years. Putting resources toward infrastructure that needs to be substantially rebuilt in only a few years’ time could turn out to be Federal resources wasted—and would still risk leaving rural America behind. Similarly, putting billions of Federal dollars into “bets” on emerging technologies that *may* deliver quality broadband *if* they turn out as promised is risky. The express intended use of these resources is to get Americans access to better broadband infrastructure, rather than speculate. These resources should be invested in technologies that have a proven track record of delivering for American consumers, rather than hanging hopes on marketing campaigns and equipment vendor promises as to capabilities to come.

As our members look to future data needs of their customers and their communities, they have taken aggressive steps to focus on anticipated increases in usage. This ongoing phenomenon accelerated during the global pandemic that forced so many to learn, work, and get treated by doctors at home; OpenVault has found, for example, that upstream broadband traffic increased by 63 percent from December 2019 to December 2020.<sup>1</sup> In addition to continuing to deploy “last mile” fiber as fast as they can, measures taken by NTCA members to stay ahead of such demands include establishing robust and reliable connections to statewide fiber networks that provide “middle mile transport” between our local communities and the rest of the world, and adding redundant connections to separate Internet points-of-presence where possible.

#### *Importance of Symmetrical Speed*

Federally funded broadband programs should focus on the consumer experience and the long-term implications for rural communities by requiring the deployment of networks that in a decade or more will still deliver speeds and other performance capabilities that customers can rely upon. To this end, NTCA supports an increase in the minimum broadband deployment performance benchmark to at least a symmetrical speed of 100 Mbps/100 Mbps to ensure that federally supported networks will meet the future needs of consumers—in other words, any funding programs going forward should generally aim to ensure that new deployments perform at least at this speed threshold. Beyond the OpenVault findings noted earlier on pandemic-related traffic patterns, residential demand for symmetrical bandwidth has increased consistently at a rate of 20 to 25 percent annually for over two decades.<sup>2</sup> Continued growth in demand is expected to increase significantly in coming years, such that peak demand for a family of four is projected to exceed 400 Mbps symmetric in just 7 years, with bandwidth needs accelerating in the years after that.<sup>3</sup> These imminent increases are anticipated due to an array of new technologies that hold substantial promise for consumers and businesses alike, such as greatly improved virtual education, telemedicine, agriculture, business, security, and entertainment. Indeed, the Federal Communications Commission (FCC) has concluded that two users or devices simultaneously using one Internet connection for a “basic” function, such as checking email, and more than one high-demand application, like video conferencing or streaming HD video, can require at least 25 Mbps, while adding just one more user or device would necessitate an Internet connection exceeding 25 Mbps.<sup>4</sup>

Despite the clear need for better performance and higher quality broadband benchmarks, some claim an increased benchmark undermines the concept of “technological neutrality.” Congress should not sacrifice robust networks that meet the needs of Americans for the sake of “technological neutrality.” If a particular technology cannot meet the standards of customers today and tomorrow, the proper answer is for innovators in that field to find ways of improving network performance (and establish they work in the field) rather than defining standards downward. Existing Federal programs employ competitive processes for considering applications that allow entities of all kinds to make proposals of all kinds using different technologies they want to deliver service. Lowering the bar simply so that all can play may make this process more competitive in a rudimentary sense, but it hardly serves the intended purpose of “buying the best possible networks” using taxpayer resources. Programs should aim higher with respect to minimum standards and uphold preferential scoring for higher-speed symmetrical and low latency performance, or risk leaving consumers with “just good enough” network technologies that might only temporarily bridge the digital divide, leaving rural communities in the lurch as they look in only a few years’ time at the better performance of networks in other areas.

#### *Hold Providers Accountable*

The FCC’s recent iterations of its High-Cost program support, through both the Connect America Fund and Rural Digital Opportunity Fund (RDOF), have utilized reverse auctions as its competitive bidding method. Despite proclamations of success

<sup>1</sup> Dan O’Shea, *Pandemic Drove Upstream Broadband Traffic Boom: OpenVault*, Fierce Telecom (April 1, 2021, 12:46 PM), <https://www.fiercetelecom.com/telecom/pandemic-drove-upstream-broadband-traffic-boom-openvault>.

<sup>2</sup> See Comments of the Fiber Broadband Association at 9–10, GN Docket No. 20–269, at 15 (September 8, 2020) (“Comments of FBA”).

<sup>3</sup> See Comments of FBA at 9–10.

<sup>4</sup> See Household Broadband Guide, FCC, <https://www.fcc.gov/consumers/guides/household-broadband-guide> (last visited May 13, 2021).

when it comes to the use of such reverse auctions, there is little to no track record upon which to base such declarations as of yet. As of the date of preparation of this written testimony, the map depicting locations served through the FCC’s programs indicates a grand total of 87 locations in three states that have been served leveraging auction support.<sup>5</sup> Performance testing to confirm that providers are actually delivering what was promised in the auction will not begin until 2023. Undoubtedly more locations are coming online, of course, but it is clearly premature nonetheless to conclude that reverse auctions, especially in their current form, necessarily work to promote and sustain the availability of broadband.

It is not too soon, however, to highlight serious concerns about the results of the recent RDOF Phase I auction—and in particular whether winning bidders will deliver on the services they have promised. Due to rules that allowed bidding on a confidential basis at speculative levels based upon unproven technologies, many have raised questions about the transparency and accountability within the RDOF auction. While there is serious concern that this may have undermined the effectiveness of the auction itself, we continue to hope at the very least that the FCC will prioritize vetting RDOF winners now in a more transparent and accountable way before funds flow—and ensure that in any future programs to award funds, there is greater transparency and vetting of would-be support recipients *prior to* allowing them to participate or claim the ability to deliver services in certain ways.

The RDOF experience should inform how Congress directs agencies to distribute any broadband infrastructure funds moving forward. There should be clear standards for what will be expected of and achievable by providers looking to leverage any resources made available through such an initiative. Looking to providers with proven track records of operating in rural areas and delivering actual results makes the most sense, but whoever receives any support should be required to show clearly that they will use those resources to deliver better, more affordable broadband that will satisfy consumer demand over the life of the network in question. To ensure transparency, accountability, and the integrity of Federal broadband programs, agencies should stringently review and weight the technical, managerial, financial, and operational capabilities of applicants or bidders as part of the process of deciding on any award of funds to serve an area. There is far too much money at stake and far too many consumers on hold to gamble on confidential promises and untested technologies, and the real success of any such effort will be defined by the actual delivery of robust and reliable broadband to rural consumers.

#### PROMOTE LOCAL PARTNERSHIP

##### *Leverage Community-Based Providers*

Based in the small rural communities they serve, NTCA members have deep longstanding relationships with their local governments and anchor institutions. They have seen that some of the best results can often be achieved when local commercial operators or cooperatives with significant experience in building networks and delivering communications services work with stakeholders in the community to identify and respond to specific needs. Creating programs that encourage and incentivize such partnerships and collaboration could unleash broadband investment and help sustain those networks once built.

NTCA providers know their customers, they know the geography, and they know the business of delivering communications services in these areas. As policymakers look for solutions to deliver broadband in unserved parts of rural America, small businesses based in or near those areas offer the greatest promise for achieving results quickly and effectively. We strongly urge Congress and the Biden administration to “look local” when it comes to identifying broadband solutions—and to leverage the expertise and experience of smaller community-based providers, regardless of corporate form, in overcoming these challenges.

#### PROGRAM COORDINATION

##### *Coordinate With and Leverage Existing Broadband Programs*

The prospect of creating a new program that will “finally solve the digital divide” is always exciting. But any new Federal broadband plan should leverage what is already in place and has worked before. Creating new programs from scratch is not easy, and if a new broadband infrastructure initiative conflicts with existing efforts, that could undermine our Nation’s shared broadband deployment goals. Moreover,

<sup>5</sup> See Connect America Fund Broadband Map, FCC, <https://data.usac.org/publicreports/caf-map/> (last visited May 13, 2021).

even as some existing programs may not have performed as hoped and intended, a number of these existing initiatives have worked very well—where this is the case, the successful programs in place already should be enhanced and built upon, rather than pushed aside for something new. Therefore, any new Federal broadband program should coordinate with Federal broadband programs at the FCC, United States Department of Agriculture (USDA), and National Telecommunications and Information Administration, and also State broadband programs.

Furthermore, small, rural telecom providers have long used the FCC’s High-Cost USF and USDA Rural Utilities Service (RUS) loans in concert to deploy advanced telecommunications services in the most rural areas of the United States. Many smaller providers have successfully leveraged a mix of funds from these programs and private investment to deploy broadband to millions of homes, businesses, farms, and anchor institutions. While RUS lending programs have helped to finance the substantial up-front costs of network deployment, the USF High-Cost Fund helps make the business case for construction and sustains ongoing operations at affordable rates. More specifically, USF by law aims to ensure “reasonably comparable” services are available at “reasonably comparable” rates. Not to be confused or conflated, RUS capital and ongoing USF support serve distinctly important, but complementary rather than redundant, purposes in furthering rural broadband deployment. Ensuring that sources of Federal and State support for broadband networks continue to work in concert not only avoids duplication and helps deliver high-speed reliable broadband to the consumer, it recognizes the hard realities of both deploying robust networks and then delivering high-quality affordable services in the most remote, sparsely-populated areas of the Nation.

#### *Direct Funding for New Network Deployment to Unserved Areas*

Funding for new network construction should be targeted to unserved areas to limit overbuilding of existing networks that are meeting Federal broadband standards. We should focus funding on the areas most lacking in broadband and seek to build the best kinds of networks in those areas—and we can then turn our attention to the areas next most in need once that is complete. This iterative approach will ensure the best possible use of Federal resources in the form of targeting funds for new networks to the consumers that need help most and ensuring that the networks then built to serve those consumers will last for decades thereafter. It will also avoid funding two competing networks in an area where without support cannot support even one.

#### SUPPORT ONGOING NETWORK OPERATIONS

Robust broadband infrastructure is crucial to the current and future success of rural America. But the characteristics that enable the unique beauty and enterprise of rural America make it very expensive to deploy advanced communications services there. Deploying a communications network in a rural area requires a large capital outlay due to the challenges of distance and terrain. The number of rural network users, as compared with more densely populated urban areas, is too small to justify investment in many cases and pay the costs of deployment and ongoing operations through customer charges. Again, while so many focus on the upfront financing aspects of this debate—which is important, to be sure—it is equally important that we not overlook the long-term viability of networks in these sparsely populated rural areas and the kinds of support mechanisms needed to sustain them and keep services affordable on them.

#### BARRIERS TO DEPLOYMENT

While high costs are perhaps the most imposing obstacle to deploying and maintaining broadband in rural areas, other barriers remain too, such as time-consuming and expensive right of way and access delay issues and supply chain shortages.

#### *Permitting Delays*

Infrastructure investment depends not only on financing but also on prompt acquisition or receipt of permissions to build networks. Roadblocks, delays, and increased costs associated with permitting and approval processes are particularly problematic for NTCA members, each of which is a small business that operates only in rural areas where construction projects must range across wide swaths of land. The review procedures can take substantial amounts of time, undermining the ability to plan for and deploy broadband infrastructure—especially in those areas of the country with shorter construction seasons due to climate. Additionally, obtaining reasonable terms and conditions for attaching network facilities to poles that are owned and operated by other entities can result in long delays and costly fees

charged to providers seeking to build out networks to rural communities lacking service.

Navigating complicated application and review processes within individual Federal land-managing and property-managing agencies can be burdensome for any network provider, but particularly the smaller network operators that serve the most rural portions of the country. The lack of coordination and standardization in application and approval processes across Federal agencies further complicates the deployment of broadband infrastructure. We have seen much agreement for some time now on solutions to simplifying the administrative barriers to deployment. Specifically, Congress should look to implement the recommendations of the FCC's Broadband Deployment Advisory Committee's Streamlining Federal Siting Working Group final report issued in January 2018.<sup>6</sup> NTCA participated in the development of these recommendations, which address streamlining of environmental and historical reviews and application review periods, among other pertinent recommendations in removing further regulatory barriers to broadband deployment.

#### *Addressing Supply Chain Concerns*

In recent years, Congress has provided significant funding through several agencies to deploy broadband infrastructure with the goal of bridging the digital divide. However, as broadband providers construct these networks, it is important to monitor the status of the communications supply chain. NTCA members are beginning to report significant backlogs for critical communications equipment like fiber, routers, antennas, network terminals, and customer premise equipment—ranging from several weeks to 1 year. Delays in production of necessary equipment appear to be related to both increased demand for broadband investment as well as ongoing effects of the pandemic. To ensure that existing and new infrastructure initiatives are as successful as possible in responding to consumer needs and demands, we believe it is important that the Federal Government work closely and directly with manufacturers, distributors, and other suppliers to avoid disruptions in the communications supply chain.

For these reasons, while there has been a great deal of focus on the *security* of our supply chains, we strongly encourage Congress to consider supply chain *continuity and reliability* as key components of delivering on a successful broadband infrastructure agenda. As Congress is poised to make future investments to solve the digital divide once and for all, supply chain shortages must be addressed—including consideration of ways to spur domestic supply chain production and address any other shortcomings in the global supply chain. Without attention to continuity and reliability, we risk billions of dollars in funds intended for immediate broadband deployment being tied up in held orders and delayed shipments.

#### CONCLUSION

Rural America is difficult and costly to serve, with each rural area presenting unique challenges. An effective national strategy to achieve universal broadband requires a holistic and coordinated approach that looks to solve challenges of availability and affordability in all kinds of areas and for all kinds of consumers. NTCA members are deeply committed to the customers they serve and, given their experience and success in serving the most rural areas, these providers should be seen as critical components of any strategy seeking to achieve universal broadband in the United States.

A legislative infrastructure initiative offers a unique opportunity to provide the resources needed to make these investments and mechanisms that ensure efficiency and accountability in the expenditure of funds already in place. Our industry is excited to participate in this conversation regarding broadband infrastructure initiatives, and we look forward to working with policymakers and other stakeholders on a comprehensive infrastructure strategy to ensure that all Americans will experience the numerous agricultural, economic, health, and public safety benefits of broadband.

Thank you for the opportunity to testify, and for the committee's commitment to broadband infrastructure investment in rural America.

<sup>6</sup>See Broadband Deployment Advisory Committee, Streamlining Federal Siting Working Group, Final Report, FCC (January 23–24, 2018), <https://www.fcc.gov/sites/default/files/bdac-federal-siting-01232018.pdf>.

## QUESTION SUBMITTED FOR THE RECORD TO SHIRLEY BLOOMFIELD

## QUESTION SUBMITTED BY HON. TODD YOUNG

*Question.* President Biden’s American Jobs Plan includes a provision for \$100 billion to support building out broadband for rural and underserved areas—hoping to ensure 100-percent coverage across the country.

Last December, the FCC announced \$9.2 billion in Phase 1 awards to expand rural broadband as part of their Rural Digital Opportunity Fund auction program. An additional \$11.2 billion is on the table in Phase 2, which will target underserved areas that did not receive funding in Phase 1. Furthermore, the FCC established a 5G fund for rural America that will distribute another \$9 billion in funding over 10 years.

Overall, the FCC will be awarding nearly \$30 billion for broadband deployment, which is on top of broadband companies investing somewhere between \$70 and \$80 billion annually for more reliable infrastructure.

As we work to bridge the digital divide, it seems more beneficial for the Biden administration to coordinate among agencies and stakeholders, and prioritize legitimate need instead of wasteful buildout of infrastructure. As with any program, overbuilding can result in expensive or overpriced services as the cost of unused infrastructure has to be recovered.

Given the ongoing growth in private investments and the nearly \$30 billion in Federal funds, is an additional \$100 billion in “infrastructure” funding really necessary since we do not fully understand the impact of current investments?

*Answer.* The FCC has previously estimated that roughly \$80 billion is needed to connect all Americans to robust broadband that will stand the test of time, and NTCA believes a significant amount in that range will be necessary to close this longstanding gap in service for the most rural and hard to reach areas. This being said, we must also make the best use of finite funds to build broadband networks that last. Over the past decade, even as many telecom network funding programs have been reoriented to promote broadband deployment and sustainability, we have seen the errors of “aiming too low” with respect to the kinds of networks that must be built—setting speed targets that are quickly surpassed and deemed irrelevant, insufficient, and unresponsive in the face of escalating consumer demands. We must not repeat the same mistakes over and over again and hope for different results.

NTCA, too, shares concerns about coordination. There are a number of programs in place today that have done and continue to do good work in advancing national broadband objectives, and it is essential that any new programs work in concert with and complement these existing efforts rather than creating conflicts with them in ways that undermine the sustainability of networks already in place. It is also important that funds for new future-proof networks are targeted to areas most in need, rather than overbuilding existing networks and making the hardest-to-serve pockets of rural America even harder to serve as a result.

To make sure we expend new funds efficiently and effectively, NTCA believes four principles should guide any broadband infrastructure investment:

1. **Identify the areas most in need and direct funding for new networks there first.** Start by tackling areas lacking 25/3 Mbps broadband, for example. Once those areas are addressed, attention should then be turned to the next most-in-need areas, where consumers cannot perhaps access 50/5 Mbps broadband. This process should continue by moving the bar higher on what constitutes an “unserved” area until the funding available for deployment is expended.
2. **Build the best possible networks in these areas in need.** Rather than repeat the mistakes of the last decade and engaging in “incremental deployment” that is far less efficient and far more frustrating for consumers, we should be building networks that are built to last. As the government helps to pay for these networks, it should be getting a return on that investment over decades rather than years or even just months. Even new networks built to deliver 100/20 Mbps broadband are highly likely to be deemed unsatisfactory in just a few years’ time due to escalating customer demands, meaning the government will have paid for networks that need to be rebuilt again in a short time frame—an inefficient result that risks wasting government resources and leaving customers with substandard service yet again in the future.

3. **Coordinate among new and existing programs.** As noted above, there are many programs in place that have enabled robust networks in rural areas. These efforts should be part of a comprehensive strategy, with new programs targeting funds to areas where existing programs are not already in the process of tackling and overcoming broadband challenges.
4. **Leverage Community-Based Expertise.** Private operators and cooperatives based in their communities have a tremendous track record of success in deploying rural broadband. Precisely because they live in the areas they serve, they are familiar with the challenges and have incentives to make sure their friends, family, and neighbors are well served. Any new infrastructure program should prioritize participation of these local experienced providers, rather than prioritizing providers based upon artificial distinctions such as corporate form.

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PREPARED STATEMENT OF HEATHER BUCH, SUBCOMMITTEE CHAIR, TRANSPORTATION STEERING COMMITTEE, NATIONAL ASSOCIATION OF COUNTIES

Chair Wyden, Ranking Member Crapo and distinguished members of the committee, thank you for the opportunity to testify today on the importance of restoring our Nation's infrastructure and what tools counties need to help advance our shared infrastructure goals.

My name is Heather Buch, and I serve as the District Five Commissioner in Lane County, OR. Lane County is home to nearly 400,000 residents to whom we provide critical services, including road and bridge operation and maintenance, public safety and emergency services, public housing, health and human services, and more. We predominantly rely on local property taxes to ensure our many infrastructure responsibilities are met; however, due to constraints on local revenues that are enforced at the State level, a strong intergovernmental partnership is critical as we work to meet the challenges of today and the future.

Lane County is in a unique area of the country, ranging from rural to urban and stretching from the Cascade Range mountains to the Pacific coast. In fact, all of America's counties are highly diverse and vary immensely in geography and natural resources, social and political systems, cultural, economic and structural circumstances, public health and environmental responsibilities. Of the Nation's 3,069 counties, approximately 70 percent are considered rural with populations of less than 50,000, and 50 percent of these counties have populations below 25,000. At the same time, there are more than 120 major urban counties, where essential services are provided locally to more than 130 million county residents each day.

Collectively owning and operating 44 percent of public road miles and 38 percent of the National Bridge Inventory, counties are leaders in the Nation's transportation system.<sup>1</sup> In addition to providing safe and efficient options for passenger vehicles and heavy trucks moving people and goods along our Nation's roadways, counties also directly support 78 percent of public transit systems and 34 percent of public airports. Transportation and infrastructure are core public sector responsibilities that impact everything from our daily commutes to driving commerce around the globe. From building and maintaining roads and bridges to providing efficient transit options, counties are a driving force connecting communities and strengthening economies.

At the county level, our infrastructure duties extend far beyond transportation. Counties annually invest \$134 billion in the construction of infrastructure and the maintenance and operation of public works that includes essential community infrastructure, such as airports, schools, hospitals, jails, courthouses, parks, broadband deployment, and water purification and sewage systems.

Counties are pleased to see that infrastructure continues to be a bipartisan topic of discussion. We believe that now is the time to seize this exceptional moment and deliver investments that will enhance the quality of life for Americans across the country and help improve our global competitiveness from the bottom up. To this end, counties offer the following considerations:

- Our Nation's infrastructure is in need of immediate, significant investments, and now is the time to act.

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<sup>1</sup>[http://www.magnetmail.net/actions/email\\_web\\_version.cfm?ep=uo1VB8smspitsBH\\_2-1mu5dfsRxmnCw45L2pd1bBAAdC-IzmpwguMf2-je02BYOuCQQ57cIGa-vjuChnZJ5dGzPL\\_zReZH\\_2zLT9qnVp42BXmUpFxQrvBDqSOXj6NQ](http://www.magnetmail.net/actions/email_web_version.cfm?ep=uo1VB8smspitsBH_2-1mu5dfsRxmnCw45L2pd1bBAAdC-IzmpwguMf2-je02BYOuCQQ57cIGa-vjuChnZJ5dGzPL_zReZH_2zLT9qnVp42BXmUpFxQrvBDqSOXj6NQ).



- Counties play a significant role in the national infrastructure network but understand that improving our Nation's infrastructure relies on a strong Federal-State-local partnership.
- Given our unique position to support America's infrastructure, counties call on our Federal partners to implement additional financing tools and dedicated funding streams that will allow us to continue providing excellent public services to support our residents and communities.

**Our Nation's infrastructure is in need of immediate, significant investments, and now is the time to act.**

Counties believe that, given the billion-dollar infrastructure backlogs at every level of government that have been further exacerbated by the COVID-19 pandemic, Congress must seize this opportunity and provide historic investments in our Nation's infrastructure.

The American Society of Civil Engineers recently estimated in the 2021 Report Card for America's Infrastructure<sup>2</sup> that, assuming Federal infrastructure spending continues at its current rate, a \$2.6-trillion investment gap will emerge over the next 10 years between the funding level needed to return our Nation's infrastructure assets to states of good repair and the amount actually being invested. This is extremely concerning for counties, who along with other local governments, are responsible for the vast majority of America's transportation network, including 3.1 million public road miles.

Off-system bridges (OSBs) are of particular concern to counties, who collectively own 62 percent—or 227,995—of these often-compromised structures. In Oregon, counties are responsible for 55.5 percent<sup>3</sup> of the State's share of OSBs. Representing vital cogs in the national system, nearly 50 percent of the National Bridge Inventory is comprised of off-system bridges.<sup>4</sup> Due to their placement off Federal-aid highways, these bridges have experienced consistent underinvestment resulting in a current backlog of \$17.3 billion in deferred maintenance and repair needs, as well as serious safety concerns. Safety is always at the forefront of local decision-making, and when county officials are forced to choose one project over another because of a lack of resources, the security of our residents and the many urban travelers whose daily commutes take them on our local roads each day is compromised.

This concern extends far beyond just urban counties as 45 percent of the Nation's traffic fatalities occur<sup>5</sup> on rural roadways, though only 19 percent of the U.S. population resides here. According to the U.S. Department of Transportation, 34 percent of fatalities at public at-grade rail crossings occur in rural communities, a factor that is contributed to heavily by the 80 percent of railroad crossings in these areas that lack active warning devices. Needless to say, the demand for investment in safety across local communities, urban, suburban and rural, is great.

**Counties play a significant role in the national infrastructure network but understand that improving our Nation's infrastructure relies on a strong Federal-State-local partnership.**

America's counties appreciate recent action by Congress to include water, sewer and broadband projects as eligible uses of the direct funds provided to counties by the American Rescue Plan Act (Pub. L. 117-2). However, significant infrastructure needs and backlogs existed at the local level prior to COVID-19 and remain today. As we work to meet those challenges, new obstacles have been borne from battling the global pandemic and come at a time when the charge of county officials to protect the health and safety of our residents has grown at a rapid rate.

As owners of more roads and bridges than any other entity and home to where the majority of daily commutes both begin and end, counties are leading the way in transportation. In total, 1.8 million road miles are owned and maintained by counties. In 2019, local resources contributed 34 percent of total national funding for public transit—second only to directly generated revenues, which provided just under 36 percent. To truly understand the county role in infrastructure,<sup>6</sup> however, it is important to look beyond the ownership stake we have in roads and bridges and, instead, holistically view the wide variety of other community infrastructure

<sup>2</sup> <https://www.asce.org/infrastructure/>.

<sup>3</sup> [https://ce.naco.org/%2Fapp%2Fprofiles%2FBridges%2FBridges\\_41000.pdf](https://ce.naco.org/%2Fapp%2Fprofiles%2FBridges%2FBridges_41000.pdf).

<sup>4</sup> [https://www.naco.org/sites/default/files/documents/Bridge%20Profile\\_National\\_05.15.19.pdf](https://www.naco.org/sites/default/files/documents/Bridge%20Profile_National_05.15.19.pdf).

<sup>5</sup> <https://www.bts.gov/rural>.

<sup>6</sup> <https://naco.sharefile.com/share/view/s5be17ae6bc4f4e1da050a5e29228fdef>.

needs county officials are tasked with meeting. Counties support over 900 hospitals and invest in the construction, operation and maintenance of 90 percent of jails that see 11 million individuals cycled in and out each year. Annually, we spend more than \$100 billion on community health centers and hospitals; \$61 billion in the construction of public facilities, like schools and libraries; and \$22.6 billion on sewage and wastewater management.

More than statistics, counties have real world examples of our infrastructure needs that, in some cases, can mean life or death. Last year, on Labor Day, the State of Oregon experienced a not uncommon scenario—exceedingly high winds coupled with extremely dry conditions. It was a perfect recipe for wildfire, and by the end of the day, there were seven counties with wildfires that endured through October. In Lane County, the Holiday Farm Fire eventually consumed 173,000 acres in and around the McKenzie River and destroyed over 400 homes, with one individual losing their life. Residents fled the fire with literally the clothes on their back. As Lane County continues to recover from this devastating event, one of the most important takeaways for our counties was uncovering significant vulnerabilities within our emergency and community communications system. Prior to the fire, fiber was installed on utility poles running along the main highway serving our region, and a few microwave towers existed on several mountain and ridge tops. Every single pole was destroyed by the fire, as were all the mountain top sites, rendering communication and Internet access completely nonexistent. While a FIRST Net portable tower was deployed, the system is intended for use by first responders, and given the terrain of the region, was limited even further to the firefighting effort. The Federal Emergency Management Agency deployed to our community, but because their efforts are limited to replacing what was there prior to the disaster, we remain extremely vulnerable to future emergency communication issues. **Access to reliable broadband is not a concern distinctive to Lane County—65 percent of counties have average connection speeds<sup>7</sup> beneath the Federal Communications Commissioner definition of broadband.** Any Federal infrastructure package should provide considerable additional investments in broadband, a service important now more than ever as Americans rely on an Internet connection to attend work, school and social events.

**While we are doing our part at the local level, 45 states limit the ability of counties to raise revenue<sup>8</sup> in various ways, making the intergovernmental partnership vital to meeting our public-sector responsibilities.** In Oregon,<sup>9</sup> the ability of counties to levy property taxes is restricted by the State, who has imposed an overall property tax rate limit of \$15 per \$1,000 of value. The rate may not exceed \$5 per \$1,000 of value for public school purposes and \$10 per \$1,000 of value for general government purposes. If the property tax rate on any piece of property exceeds this limit, the county must reduce proportionally the taxes for that property to the limit through a process called “compression.” Alongside this limitation, the state constitution imposes another limit that the assessed value of a property unit may not increase by more than 3 percent annually. Since counties may not levy any sales taxes in Oregon, we rely heavily on property taxes; as such, these limits on property tax revenue significantly impact our county budget. Our inability to raise revenue, coupled by the extreme loss in revenue due to the COVID-19 pandemic, further limits our ability to invest in critical infrastructure projects and services.

For western counties, State restrictions on local revenues can be even more impactful, as much of the land within our boundaries is considered Federal land, thus removing our ability to collect property taxes in these areas. This committee well knows the role that Federal forest revenues play in supporting the development and maintenance of roads and bridges across the West, and we appreciate the action of the chair and ranking member on this matter. Unfortunately, the Secure Rural Schools Act has sunset and divisions over Federal forest management policies remain. Consequently, Lane County expects to see declining amounts from national forest receipts over our coming planning horizons, further depleting the availability of our local resources to make investments in our community. **Until a permanent revenue solution for public lands counties can be implemented, we urge final passage of S. 435, the Secure Rural Schools Reauthorization Act.**

<sup>7</sup> <https://ce.naco.org/?dset=Broadband%20Connections&ind=Download%20Speed>.

<sup>8</sup> <https://ce.naco.org/?dset=State%20Limits%20and%20Mandates&ind=State%20Limits%20and%20Mandates%20Profiles>.

<sup>9</sup> [https://ce.naco.org/%2Fapp%2Fprofiles%2FDMWL%2FDMWL\\_41000.pdf](https://ce.naco.org/%2Fapp%2Fprofiles%2FDMWL%2FDMWL_41000.pdf).

**Given our unique position to support America's infrastructure, counties call on our Federal partners to implement additional financing tools and dedicated funding streams that will allow us to continue providing excellent public service.**

Counties, States, and other localities are the main funders of infrastructure in the United States. Municipal bonds enable local governments to build essential infrastructure projects, such as schools, hospitals, and roads. In fact, over the past decade, 90 percent of infrastructure muni bond financing went to schools, hospitals, water and sewer facilities, public power utilities, roads, and mass transit. Municipal bonds, along with other Federal financing tools, are a key resource for counties in need of infrastructure financing. As counties continue to face hundreds of billions of dollars in budgetary shortfalls<sup>10</sup> as a result of our frontline response to COVID-19, the tools available to us to make badly needed investments in local infrastructure should be expanded, not restricted at a time when we need Federal resources most.

We appreciate the work of members of this committee to reintroduce the American Infrastructure Bond Act that will provide local governments additional financing tools and the flexibility to fulfill a wide range of community infrastructure needs. To build on this progress, America's counties offer the following recommendations:

- **Restore the tax exemption for advance refunding bonds:** Before January 1, 2018, municipal issuers were able to issue single tax-exempt advance refunding bonds prior to 90 days before call. This critical tool allowed State and local governments to effectively refinance their outstanding debt in order to take advantage of more favorable interest rate environments or covenant terms. Advance refunding bonds frequently provided issuers with the flexibility to lower debt servicing charges that would otherwise be a fixed cost. The Government Finance Officers Association (GFOA) found that, between 2007 and 2017, there were over 12,000 tax-exempt advance refunding issuances nationwide which generated over \$18 billion in savings for tax and ratepayers over the 10-year period. Prior to their elimination in the Tax Cuts and Jobs Act (Pub. L. 115-97), advance refunding bonds made up approximately 27 percent of issues in 2016. Restoring this important tax exemption would require an act of Congress, but it would prove to be one of the most effective actions to provide State and local governments with more financial flexibility to weather downturns and increase infrastructure investment.
- **Fully restore the State and Local Tax (SALT) deduction:** The SALT deduction has been a bedrock principle since the first three-page Federal income tax in 1913, and the deduction supports local school funding, home ownership, lower middle-income taxes, tailored social services, infrastructure development, and local job creation efforts. By capping SALT deductibility, Congress shifted the intergovernmental balance of taxation and limited State and local control of tax systems. Eliminating the \$10,000 cap on SALT deductions would improve counties' ability to deliver essential public services, such as emergency response, public health services and infrastructure development. In Lane County, 91 percent of middle-income taxpayers benefited from the SALT deduction,<sup>11</sup> and 63.7 percent of all SALT deductions benefited middle income households.
- **Return long-term solvency to the highway trust fund (HTF):** Returning our Nation's transportation and infrastructure assets to states of good repair and beginning to build back better is a tall task and a responsibility too large and complex for any single level of government to undertake alone. For many areas of the country, the use of innovative financing mechanisms and attracting private capital is simply not possible.

As such, counties believe that among one of the most critical actions the committee can undertake to advance our Nation's infrastructure is to provide a permanent fix for the HTF. Counties depend on the long-term certainty and solvency of the HTF to deliver critical infrastructure projects for our many residents and urge Congress to enact a meaningful solution that will counteract the fund's looming insolvency. HTF revenue sources that better account for all users of the road will be critical as transportation technologies that are not reli-

<sup>10</sup><https://www.naco.org/resources/press/fiscal-impacts-covid-19-could-reach-202-billion-counties-direct-and-flexible-funding>.

<sup>11</sup>[https://ce.naco.org/%2Fapp%2Fprofiles%2FSALT%2FSALT\\_41039.pdf](https://ce.naco.org/%2Fapp%2Fprofiles%2FSALT%2FSALT_41039.pdf).

ant on motor fuel continue to be increasingly integrated into the national network.

The State of Oregon, where a vehicle-miles-traveled (VMT) pilot has been underway for several years, is currently considering codifying the VMT program to require owners of new electric or highly fuel-efficient vehicles to pay into the State's HTF based on their distance driven beginning in 2026. Counties believe that this pilot is replicable on a national scale and that Congress should seriously consider transitioning toward a VMT that will better account for all users of the road and help to shore up the ailing HTF.

Finally, counties utilize a variety of Federal financing tools to build or repair our local transportation assets, including Transportation Infrastructure Finance and Innovation Act (TIFIA) loans, qualified tax credit bonds, infrastructure banks and public-private partnerships. As such, we recommend lawmakers strengthen and increase these opportunities that help counties leverage Federal financing for capital projects.

- **Direct Federal funds to locally owned infrastructure:** As the form of government closest to the people and the level of government responsible for a vast majority of our Nation's infrastructure, counties know how to put Federal dollars to work where they are needed the most. While we understand the importance of the intergovernmental partnership, the "trickle down" effect simply does not work for many counties, who lack access to both public and private capital for infrastructure. Counties agree that transportation and infrastructure projects should not be carried out in a silo and should contribute to regional connectedness; however, when already isolated communities are further cut off from resources by the outage of a local bridge, rural communities suffer greatly. **As a result of the 47 percent of heavy truck vehicle miles traveled that occur on local rural roads, the impact of this closed bridge is felt far beyond local economies when trucks are forced to travel up to three times longer distances to find a passable bridge.** Nearly 60,000 bridges in rural communities have weight limits or are closed entirely. This is not just a rural issue, however, and we urge lawmakers to provide all of America's counties, parishes and boroughs with access to direct Federal funds for transportation projects.
- **Support small issuers:** Counties urge Congress to include a temporary extension and permanent restoration of proven financing tools utilized by State and local governments, schools, hospitals, airports, special districts, and other public sector entities to provide efficient and low-cost financing for critical investments in infrastructure that will move the country forward. Specifically, we urge you to increase the bank-qualified borrowing limit from \$10 million to \$30 million, and apply the limit at the borrower level, which would ensure that small local governments could provide access to capital for immediate infrastructure.
- **Support resilient energy systems:** Counties support Federal incentives to promote nationwide energy conservation efforts. To facilitate decentralized energy conservation activities, the Federal Government should seek input from local government on implementation and continue to adequately fund all conservation and fuel assistance programs. We support incentives to research and develop renewable energy technologies, including wind, solar, geothermal, biomass, electricity from landfill gas, and other forms of waste-to-energy which will achieve the objective of clean and safe forms of energy. Lastly, we support incentives to research and develop energy storage technology.

Local governments support tax incentives, rebates and promotions to increase the purchase of lower pollution vehicles by private businesses and all levels of government. Federal policy must be established to ensure the availability of a refueling infrastructure and of competitively priced, reliable alternative fuel and alternative fuel vehicles, and such policy should consider its impact on gas tax revenues and the HTF before requiring conversion of motor vehicles.

Importantly, to successfully advance our shared infrastructure goals, **counties firmly believe that increased or expanded Federal financing opportunities cannot come in lieu of direct Federal funding streams for locally owned and operated infrastructure.**

#### CONCLUSION

Chair Wyden, Ranking Member Crapo, and members of the committee, thank you again for inviting me to testify here today.

With additional Federal aid and resources, counties across America will be able to strengthen our communities and enhance local, regional, and State economies by investing in infrastructure.

We appreciate the bipartisan efforts thus far to invest in infrastructure. As you consider further Federal resources, counties ask that you provide the tools we need to meet the demands of today and to build back better.

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QUESTIONS SUBMITTED FOR THE RECORD TO HEATHER BUCH

QUESTIONS SUBMITTED BY HON. ROB PORTMAN

*Question.* According to the Federal Highway Administration, 36 States have passed public-private partnership-enabling legislation, yet the use of this financing tool is still quite small. As Commissioner Sheehan noted in opening testimony, CBO states that P3s have accounted for only 1–3 percent of spending for highway, transit, and water infrastructure since 1990.

How can we on the Federal level better encourage the use of P3s?

*Answer.* On behalf of America’s 3,069 counties, the National Association of Counties (NACo) offers the following the recommendations: positively weighting grant applications that utilize private investment; providing technical assistance to mitigate the complexities of the process; engaging local organizations, including development districts and chambers of commerce, to better facilitate the creation of P3s; decreasing the administrative burden of applying for Federal grant programs, whether by reducing paperwork and other requirements, or by providing the necessary resources for local governments to hire additional staff; and increasing public awareness of P3s.

In some instances, rural or more isolated counties are simply unable to attract private capital; therefore, in these cases, the Federal Government should provide funding opportunities, such as through direct competitive grants.

*Question.* From 2007–2016, the average annual financing for highway infrastructure provided by State Infrastructure Banks amounted to \$200 million, or about 1 percent of new financing by State and local governments.

Can you speak to how we can address the underutilization of State infrastructure banks? What makes this form of financing unpalatable for State and local infrastructure projects?

*Answer.* The Oregon Transportation Infrastructure Bank appoints an advisory committee that is comprised of both State and local officials and other community stakeholders, which helps ensure counties and other local governments are actively involved in project selection—a critical factor in the ultimate success of a State infrastructure bank-financed transportation project.

*Question.* In your testimony you listed infrastructure banks as a tool that counties utilize for financing infrastructure projects that could be strengthened by Congress. While 33 States have authorized the creation of an infrastructure bank, I recognize their utilization on projects is a small fraction of the current financing for local transportation projects.

Could you go into further detail on your thoughts regarding the creation of a Federal infrastructure bank?

*Answer.* Counties support an “all tools in the toolbox” approach to Federal financing and funding of infrastructure projects. A national infrastructure bank (NIB) is one such tool. As adopted by the NACo Transportation Policy Steering Committee, the NIB resolution states:

**Adopted Policy:** The National Association of Counties (NACo) urges Congress to enact legislation to create a new National Infrastructure Bank (NIB) system in the tradition of George Washington, John Quincy Adams, Abraham Lincoln, and Franklin Roosevelt. This proposed bill has the following critical points:

1. It would create a new NIB by exchanging existing Treasury debt for preferred stock in the bank. The proposal is to raise \$500 billion, out of the \$23 trillion in Treasury debt, and put it in the bank. This would require no new Federal debt.
2. The NIB would pay 2 percent interest above the Treasury yield to the investors, with all transactions being federally insured. The 2 percent would be in-

cluded in the U.S. budget and not go through appropriations. This model has been used in the past, initiated by the first Treasury Secretary Alexander Hamilton.

3. The NIB would perform as a traditional commercial bank and be able to provide financing in the form of loans. The bank would loan \$4 trillion to States, cities, counties, authorities, and multistate entities to address the infrastructure crisis in the Nation. Loans would be long-term, at Treasury rates and for infrastructure projects only.
4. There would be a board of directors composed of mainly engineers and infrastructure experts, with State, local, and county officials with experience in infrastructure construction to assist in the implementation of the projects. The bank would report all banking transactions to Congress on a regular basis.
5. The NIB would create 25+ million new high-paying jobs, which would increase the tax base and increase the productivity of the entire economy. Previous such entities have increased real GDP by 3–5 percent per year, and payback multiples have been anywhere from 2–10 times the investment.

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PREPARED STATEMENT OF HON. MIKE CRAPO,  
A U.S. SENATOR FROM IDAHO

Thank you, Mr. Chairman, for holding this timely hearing on funding and financing options for our Nation's infrastructure.

Infrastructure investment has traditionally been bipartisan and accomplished through regular order. I am encouraged by the productive meeting I had last week with President Biden and some of my Republican Senate colleagues about the need to modernize and expand our transportation system and broadband network in a bipartisan manner.

The framework Republican Senators discussed with President Biden included: roads and bridges, transit, rail, airports, drinking water and wastewater infrastructure, port and inland waterways, water storage, and broadband infrastructure. Consideration of offsetting the cost of infrastructure with a corporate tax rate increase or increases in international taxes, especially coming out of the largest negative shock to the economy on record, is counterproductive and a non-starter on my side of the aisle.

With the FAST Act extension expiring at the end of September, reauthorization of our surface transportation programs should be the basis of any infrastructure conversations. As our witnesses will discuss, Congress must provide long-term stability and certainty for these programs so that transportation agencies, cities, counties, and States across the country can make responsible long-term transportation planning decisions.

For the last few transportation authorizations, Congress has made the decision to spend more than the receipts going into the highway trust fund. In order to advance a comprehensive, long-term reauthorization bill, it is important that we do so in a fiscally responsible manner. There is no silver bullet for how to pay for transportation infrastructure, but historically it has been paid for by user fees, which makes sense.

For many years, the users of transportation infrastructure paid fees for that use through the gas and diesel taxes which were deposited into the highway trust fund, and then distributed to pay for our Nation's roads, bridges, and transit systems. There have been many changes to the transportation landscape since Congress last raised the gas tax in 1993, such as increased fuel efficiency and a significant increase in electric vehicles, or EVs, on the road. With this evolution, Congress needs to ensure all users of the transportation infrastructure are paying into the highway trust fund.

To make up the projected \$195-billion 10-year shortfall of the highway trust fund, Congress needs to think creatively of ways to ensure EVs are paying in their fair share. If we are able to identify a top-line spending number and go through a bipartisan FAST Act reauthorization process, I am ready to work with my colleagues on the other side of the aisle to do the hard work of addressing the solvency of the highway trust fund. With that, the United States will have the funding we need to maintain and modernize our transportation system to meet the rapidly evolving landscape of today and in the future.

To maximize use of taxpayer dollars, we should consider proposals to attract private capital for infrastructure projects, repurpose unused Federal funds, and improve and expand upon existing infrastructure loan programs. We should consider how public-private partnerships can fit into our comprehensive infrastructure funding and financing approach.

The Transportation Infrastructure Finance and Innovation Act (TIFIA), Railroad Rehabilitation and Improvement Financing Act (RRIFA), and Water Infrastructure Finance and Innovation Act (WIFIA) are good examples of financing tools that can leverage Federal resources, and we should consider ways those programs should be improved and expanded. Private Activity Bonds (PABs) for transportation projects have proven so attractive that the program is oversubscribed, with the \$15-billion cap having been met and additional applications outstanding.

We should consider how PABs and other bond programs can be used to help States and localities move their infrastructure projects forward. There are hundreds of billions of dollars in unspent funds from COVID relief packages. Those funds should be put to work and repurposed to fund infrastructure projects.

Mr. Chairman, the word “infrastructure” itself has become somewhat of a fluid term lately. As this hearing demonstrates, there is bipartisan support for finding long-term funding and financing solutions for transportation infrastructure, as well as increasing access to broadband connections, particularly in rural America. Americans rely heavily upon broadband technology for business, government, education, and personal activities.

Efforts have been underway for some time to address a “digital divide” in broadband deployment between rural, urban, and suburban areas to ensure communities, regardless of size, can access technological advancements. The pandemic magnified the importance of expansive and reliable broadband technology as so many Americans found themselves working and learning from home.

Mr. Chairman, thank you again for holding this hearing. Let’s get to work in a bipartisan way to maintain, modernize, and expand America’s infrastructure.

I thank the witnesses for their willingness to participate in today’s hearing.

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PREPARED STATEMENT OF JOSEPH KILE, PH.D., DIRECTOR OF  
MICROECONOMIC ANALYSIS, CONGRESSIONAL BUDGET OFFICE

Chairman Wyden, Ranking Member Crapo, and members of the committee, thank you for inviting me to today’s hearing. I will discuss the status of the highway trust fund, approaches to paying for highway spending, and Federal subsidies for State and local borrowing for highway spending.

SUMMARY

Federal spending on highways (or, synonymously, roads) totaled \$47 billion in 2019.<sup>1</sup> Most of those outlays were for grants to State and local governments to support their spending on capital projects. (Those governments typically spend roughly three times as much of their own funds on highways each year, not only on capital projects but also to operate and maintain roads.) That \$47 billion also included spending for Federal programs that subsidize State and local governments’ borrowing for highway projects; other subsidies for State and local borrowing are provided through the tax code.

Most Federal spending for highways is paid for by revenues credited to the highway account of the highway trust fund, largely from excise taxes on gasoline, diesel fuel, and other motor fuels. For more than a decade, those revenues have fallen short of Federal spending on highways, prompting transfers from the Treasury’s general fund to the trust fund to make up the difference.

The Congressional Budget Office projects that balances in both the highway and transit accounts of the highway trust fund will be exhausted in 2022. If the taxes that are currently credited to the trust fund remained in place and if funding for highway and transit programs increased annually at the rate of inflation, the shortfalls accumulated in the highway trust fund’s highway and mass transit accounts

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<sup>1</sup> That is the latest year for which detailed data are available about different types of spending for highways by the Federal Government.

from 2022 to 2031 would total \$195 billion, according to CBO's baseline budget projections as of February 2021.<sup>2</sup>

The current authorization for Federal highway programs expires on September 30, 2021. As they consider reauthorization, policymakers have many decisions to make about how much to spend on highway programs, how to pay for them, and the extent to which they want to provide additional Federal subsidies for State and local borrowing for highway spending.

*Revenues Credited to the highway trust fund*

The highway trust fund has two accounts—one for highways and the other for mass transit—to which certain fuel and other vehicle-related excise tax collections are credited. In CBO's February 2021 baseline projections, revenues credited to the highway trust fund in 2022 total \$43 billion, and outlays from the fund exceed revenues by about \$13 billion.

Currently, users of highways impose many costs that they do not fully pay for, including wear and tear on roads and bridges; delays caused by traffic congestion; injuries, fatalities, and property damage from accidents; and harmful effects from exhaust emissions. A combination of taxes on fuel and mileage that made users pay for more of those costs would make use of the system more efficient.

Policymakers have a number of options to increase the resources available in the highway trust fund:

- Policymakers could increase the existing fuel taxes. The tax on gasoline has been 18.4 cents per gallon, and the tax on diesel fuel 24.4 cents per gallon, since October 1993. Increasing those taxes would boost the trust fund's revenues. For example, increasing them by 15 cents per gallon in October 2022 and adjusting them for inflation thereafter would raise an estimated \$291 billion more in revenues for the highway trust fund from 2023 to 2031 than projected in CBO's February baseline. Increases of that amount would eliminate the fund's shortfall and provide \$95 billion for additional spending by 2031. However, those increases in fuel taxes would reduce taxable business and individual income, resulting in reductions in income and payroll tax receipts that would offset about one-quarter of the increase in fuel tax receipts.
- Policymakers could institute new taxes or fees, such as taxes on vehicle miles traveled (VMT) or a tax or fee on electric vehicles (EVs). One option would be to impose a VMT tax on commercial trucks. CBO has estimated, using data from 2017, that if such a per-mile tax was applied to all commercial trucks on all roads and all of the practical steps necessary to implement it were in place, each cent of tax would generate \$2.6 billion per year. The Federal Government's costs of implementing such a tax and ensuring compliance could, however, be substantial. Another option, an annual tax on EVs, would not have a substantial effect on the trust fund's shortfall over the next 10 years because the number of such vehicles is small.
- Alternatively, policymakers could transfer money from the Treasury's general fund. Under that option, the Federal Government would, in effect, pay for a portion of highway spending in the same way that it funds other programs and activities.

Among the considerations for policymakers is that implementing new taxes would probably be more costly for the government than increasing current taxes. And some approaches would raise concerns about privacy, especially if applied to personal vehicles.

New approaches to taxing highway use, such as a VMT tax, could be assessed through demonstration projects. Those projects could take different approaches to key components of a tax, allowing lawmakers to assess which approaches were most effective. For example, the projects might tax different vehicles and roads, apply different taxes at different times of day, and assess or collect tax in different ways.

<sup>2</sup>See Congressional Budget Office, "Details About Baseline Projections for Selected Programs: Highway Trust Fund Accounts" (February 2021), [www.cbo.gov/publication/51300](http://www.cbo.gov/publication/51300). CBO's baseline budget projections incorporate the assumption that current laws generally do not change. Some of the taxes that are credited to the highway trust fund are scheduled to expire on September 30, 2022, including the taxes on tires and all but 4.3 cents of the Federal tax on motor fuels. However, under the rules governing baseline projections, these estimates reflect the assumption that all of the expiring taxes credited to the fund will continue to be collected after fiscal year 2022.



*Federal Support for State and Local Borrowing for Highway Spending*

In addition to providing grants from the highway trust fund, the Federal Government supports investment in highways by State and local governments through several financing programs that subsidize the cost that those governments incur when borrowing to pay for that spending. From 2007 to 2016, the Federal Government subsidized an average of \$20 billion (in 2019 dollars) per year of new financing for highways that State and local governments obtained through tax-preferred bonds, direct loan and loan guarantee programs, and funds used to capitalize State infrastructure banks (SIBs). Tax-exempt bonds accounted for about three-quarters of that borrowing.

Federal policymakers could offer new programs or expand current programs to subsidize State and local governments' borrowing to build more roads:

- Policymakers could authorize State and local governments to issue more tax-exempt bonds to fund projects undertaken primarily by private entities.
- They could introduce a Federal tax credit bond program. Depending on its design, such a program could subsidize the same amount of borrowing by State and local governments that tax-exempt bonds do, but at a lower cost to the Federal Government, by effectively eliminating some of the benefits of tax-exempt bonds that go to higher-income bondholders.
- Or they could extend more Federal loans to State and local governments to finance transportation projects.

In addition, policymakers could allow States to collect tolls on Interstate highways, which would constitute an additional revenue stream to borrow against.

## STATUS OF THE HIGHWAY TRUST FUND

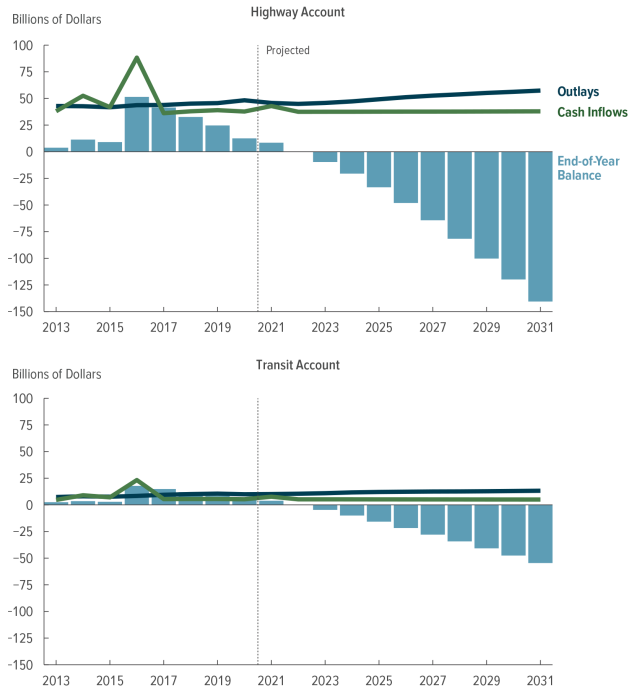
The Federal Government's surface transportation programs are financed mostly through the highway trust fund, an accounting mechanism in the Federal budget that comprises two separate accounts, one for highways and one for mass transit. The trust fund records specific cash inflows from revenues collected through excise taxes on the sale of motor fuels, trucks and trailers, and truck tires; taxes on the use of certain kinds of vehicles; and interest credited to the fund. The highway trust fund also records cash outflows for spending on designated highway and mass transit programs, mostly in the form of grants to States and local governments.

In 2019, \$45 billion in revenues and interest were credited to the highway trust fund—\$39 billion to the highway account and \$6 billion to the transit account. Most of those revenues came from taxes on gasoline and other motor fuels.

According to CBO's February baseline projections, if the excise taxes are continued at their current rates and current funding for highway and transit programs increases annually at the rate of inflation, the revenues and accumulated balances of the highway trust fund will be insufficient to cover spending from either the highway account or the transit account, starting in 2022 (see Figure 1). In those projections, revenues and interest credited to the highway trust fund in 2022 total \$43 billion, and outlays exceed revenues and interest earnings by about \$13 billion.

Figure 1.

**Annual Revenues, Outlays, and Balance of the Highway Trust Fund in CBO's February 2021 Baseline Projections**



Outlays from the Highway Trust Fund have long exceeded the revenues credited to it from taxes, but intragovernmental transfers have ensured that the fund's two accounts maintained a positive balance. In CBO's projections, the balances of both the highway account and the transit account are exhausted in 2022.

Data source: Congressional Budget Office. See [www.cbo.gov/publication/57206#data](http://www.cbo.gov/publication/57206#data).

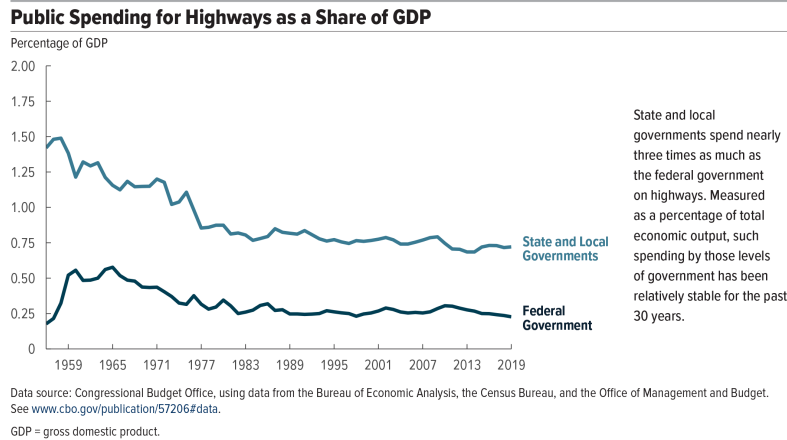
See Congressional Budget Office, "Details About Baseline Projections for Selected Programs: Highway Trust Fund Accounts" (February 2021), [www.cbo.gov/publication/51300](http://www.cbo.gov/publication/51300).

Cash inflows credited to the Highway Trust Fund include tax receipts, interest, and intragovernmental transfers.

Some of the taxes that are credited to the Highway Trust Fund are scheduled to expire on September 30, 2022, including the excise taxes on tires for heavy trucks and all but 4.3 cents of the per-gallon federal tax on motor fuels (currently 24.4 cents per gallon on diesel fuel and 18.4 cents per gallon on gasoline and other fuels). However, in accordance with the rules governing baseline projections specified in the Balanced Budget and Emergency Deficit Control Act of 1985, the estimates shown here reflect the assumption that all the expiring taxes credited to the fund will continue to be collected after fiscal year 2022.

Under current law, the Highway Trust Fund cannot incur negative balances. However, to accord with the rules governing such projections, CBO's baseline projections for surface transportation spending reflect the assumption that obligations incurred by programs funded by the Highway Trust Fund will be paid in full.

Figure 2.



To cover the shortfalls recorded in the fund's accounts, lawmakers have enacted legislation that since 2008 has transferred more than \$150 billion—mostly from the Treasury's general fund—to the highway trust fund. This year, lawmakers transferred \$14 billion from the general fund—more than \$10 billion to the highway account and \$3 billion to the transit account. Such intragovernmental transfers have allowed the fund to maintain a positive balance, but they have not changed the amount of receipts collected by the government.

#### SPENDING FOR HIGHWAYS

Almost all spending on highway infrastructure and transit projects in the United States is funded publicly. Although the private sector participates in building, operating, and maintaining projects, the Federal Government and State and local governments typically determine which projects to undertake and how much to spend on them.

In 2019, the most recent year for which data about highway spending by all levels of government are available, the Federal Government spent \$47 billion on highways—an amount equal to 0.23 percent of gross domestic product (GDP). Such spending's share of total economic output has, in general, been stable over the past 30 years, though it is only half as large as it was in the 1960s, when construction of the Interstate highway system expanded (see Figure 2).

State and local governments spent more than three times as much as the Federal Government on highways in 2019—\$150 billion, or 0.72 percent of GDP. Like Federal spending on highways, State and local governments' spending as a share of GDP peaked in the 1950s and 1960s, when it accounted for about twice the share it has in recent years.

Two characteristics of the ways that the Federal Government typically spends on highways stand out. First, most Federal highway funding takes the form of grants to State and local governments, which own most public roads in the United States and have broad discretion, with some constraints, to spend those Federal funds. Second, Federal spending on highways is almost entirely dedicated to capital projects that are intended to expand or rehabilitate eligible Federal-aid highways (which consist of the Interstate Highway System and most other roads except for local roads).

In 2019, most of the \$47 billion that the Federal Government spent on highways took the form of grants to State and local governments, which own almost all highways. Federal agencies own less than 1 percent of public roads (typically, those in national parks and forests, on Indian reservations, or on other federally owned land).

In general, State and local governments decide which projects to undertake and, as construction proceeds, receive reimbursements from the Federal Government for projects that meet Federal eligibility criteria for various programs. Most Federal

highway programs set a cap on the portion of a project's total costs that a Federal grant may cover—typically 80 percent. State and local governments must cover the remaining costs with nonfederal funds, such as tax revenues or proceeds from issuing municipal bonds.

Federal highway programs are dedicated almost entirely to capital projects rather than to the operation and maintenance of roads. In 2019, \$45 billion (or 96 percent) of Federal spending for highways went to capital investment. That spending includes outlays for the purchase of structures (such as new highways and bridges) and equipment as well as expenditures that improve or rehabilitate structures and equipment already in place. Such an allocation between capital and operation and maintenance has been typical of Federal spending for highways since the 1950s.

Because the Federal Government does not generally own highways, the responsibility to operate and maintain them falls to State and local governments. Spending patterns reflect that: Operation and maintenance accounted for 58 percent of State and local governments' spending on highways, net of Federal grants, in 2019. Operation and maintenance costs include the costs of providing necessary operating services (such as snow removal) and maintaining and repairing existing capital (such as filling potholes) as well as the costs of funding other highway-related programs (such as education about highway safety).

Unless additional funds are provided to the highway trust fund (either through an increase in revenues credited to the fund or through additional transfers from general revenues), the disparity between the receipts credited to the fund and outlays from the fund will require the Department of Transportation to delay its reimbursements to States for the costs of construction. CBO estimates that, starting in the first half of 2022, balances in the highway account of the trust fund will fall to zero, and the department will be unable to reimburse States in a timely fashion for the bills presented to the fund. The department may choose to more closely manage the timing of reimbursements to States before balances reach zero. For example, measures considered in the past have included partially reimbursing States to align total reimbursements with semimonthly receipts. The possibility of delays in payments from the Federal Government increases uncertainty among States when they plan transportation projects.

#### REVENUES CREDITED TO THE HIGHWAY TRUST FUND

The Federal Government collects revenues for the highway trust fund primarily from taxes on motor fuels. Lawmakers could increase revenues by raising those taxes or by instituting new ones.

##### *Sources of Revenues*

Of the revenues credited to the highway trust fund in 2019, \$36 billion (or 82 percent) stemmed from excise taxes on gasoline, diesel fuel, and other motor fuels (see Figure 3). Receipts from the tax of 18.4 cents per gallon on gasoline and ethanol-blended fuel contributed the largest amount—\$26 billion, or nearly 60 percent of the fund's revenues. Receipts from the tax of 24.4 cents per gallon on diesel and other fuels totaled \$10 billion, or about one-quarter of the fund's revenues. The taxes on gasoline and diesel fuel have been in place since 1993, and the rates have not been adjusted since then. All but 4.3 cents of the per-gallon Federal tax on motor fuels are scheduled to expire on September 30, 2022.<sup>3</sup>

If those taxes were extended at their current rates, revenues from gasoline and diesel-fuel taxes would decline at a rate of less than 1 percent per year through 2031 following an economic recovery after the disruptions caused by the 2020–2021 coronavirus pandemic, CBO projects. Factors contributing to that decline include the rising fuel economy of vehicles and the slow rate of growth of the total number of miles traveled by vehicles.

Not all of the receipts from the excise taxes on motor fuels are dedicated to highway spending. A portion of those receipts—2.86 cents per gallon, which amounted to about \$6 billion in 2019—goes to the transit account of the highway trust fund. In addition, 0.1 cent per gallon goes to the Environmental Protection agency's leaking underground storage tank trust fund, which supports programs run by State

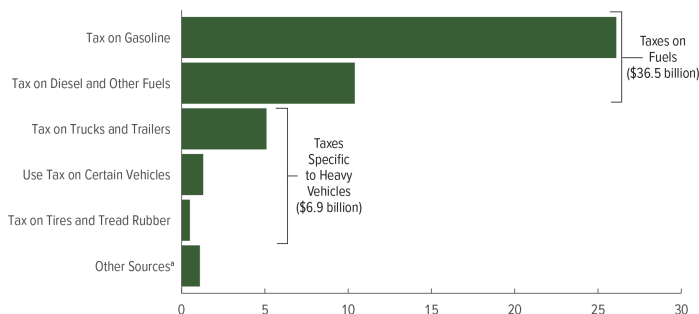
<sup>3</sup>In accordance with the rules governing baseline projections specified in the Balanced Budget and Emergency Deficit Control Act of 1985, CBO's baseline revenue estimates reflect the assumption that all the expiring taxes credited to the fund will continue to be collected after fiscal year 2022.

and local governments that prevent and clean up leaks from underground petroleum storage tanks.

Figure 3.

### Sources of Revenues Credited to the Highway Trust Fund, 2019

Billions of Dollars



Data source: Congressional Budget Office, using data from the Federal Highway Administration and the Internal Revenue Service. See [www.cbo.gov/publication/57206#data](http://www.cbo.gov/publication/57206#data).

a. Consists of \$0.8 billion in interest income, \$0.1 billion in civil penalties and fines, and \$0.1 billion in other income, primarily intragovernmental transfers—that is, funds transferred from other budgetary accounts to the Highway Trust Fund.

Revenues from three other taxes, which are specific to heavy vehicles, are also credited to the highway trust fund. The excise tax on trucks and trailers—equal to 12 percent of the sales price of tractors, trucks, and trailers that exceed certain weights—accounted for 12 percent of the trust fund’s revenues in 2019. A tax on the use of heavy vehicles (a \$100 to \$550 annual tax on trucks over 55,000 pounds) and an excise tax on certain tires for heavy trucks contributed smaller amounts to the fund. (That excise tax on tires is scheduled to expire on September 30, 2022.)

In addition to those taxes, various fees and interest on invested balances, totaling about \$1 billion per year, are credited to the trust fund.

#### Options

Lawmakers have several options for increasing resources in the highway trust fund. One option is to increase existing taxes on gasoline and diesel fuel. Alternatively, lawmakers could impose new taxes on vehicle miles traveled, on freight movement, or on electric vehicles. Finally, the Congress could make additional transfers from the Treasury’s general fund to the highway trust fund.

**Increase Existing Fuel Taxes.** CBO analyzed two options that would increase Federal excise tax rates on gasoline and diesel fuel by 15 cents or 35 cents per gallon and adjust them to grow with inflation thereafter.

According to estimates by the staff of the Joint Committee on Taxation (JCT), increasing the tax rates on fuel by 15 cents in October 2022 and indexing them to the consumer price index thereafter would increase revenues to the highway trust fund by \$26 billion in 2023. Over the 2023–2031 period, cumulative fuel-tax receipts credited to the highway trust fund would exceed the amount in CBO’s February baseline projections by \$291 billion. An increase of that amount would eliminate the projected cumulative shortfall in the highway trust fund and provide an additional \$95 billion in revenues to the fund by 2031. Interest payments on any accumulated balances would further increase the resources available in the trust fund.

Increasing the tax rates on fuel by 35 cents in October 2022 and indexing them to the consumer price index thereafter would increase revenues to the highway trust fund by \$60 billion in 2023. The cumulative fuel-tax receipts credited to the highway trust fund over the 2023–2031 period would total an estimated \$627 billion more than the amount in CBO’s February baseline projections.

However, those increases in fuel taxes would reduce Federal income and payroll tax receipts by decreasing taxable business and individual income. As a result, the net budgetary effects through 2031 would be smaller: deficit reductions of \$224 billion and \$485 billion, respectively.

**Institute New Taxes or Fees.** Another option is to impose new taxes or fees that better align what people pay for using roads with the cost of building those roads. The most recent national study of how different types of vehicles contribute to the highway costs that Federal programs pay for was published by the Federal Highway Administration (FHWA) in 2000. Passenger vehicles constituted the largest group of vehicles in use and were estimated to account for about 60 percent of Federal highway costs in 2000, even though their estimated cost per mile of highway use was the lowest at 0.8 cents.

Costs attributed to trucks accounted for the remaining 40 percent of Federal highway costs, but trucks provided about one-third of the highway trust fund's revenues. For each mile they traveled in 2000, combination trucks (that is, tractors pulling one or more trailers) were estimated to impose a cost of 8.4 cents. For all trucks, the estimated cost per mile traveled ranged from 2.2 cents for the trucks carrying the lightest loads to 20.3 cents for those with the heaviest loads.<sup>4</sup>

More recently, some States have calculated cost shares for different types of vehicles that are similar to the estimates in the FHWA study. In 2019, Oregon estimated that light vehicles (mainly cars and other passenger vehicles) would account for about two-thirds of State highway costs in 2020 and heavy vehicles for about one-third.<sup>5</sup> As the Oregon report noted, however, highway spending by State governments includes maintenance costs, such as snow removal and pothole patching, whereas Federal spending does not.

In recent years, revenues credited to the highway trust fund have declined. Because of improvements in fuel efficiency, drivers use less fuel and therefore pay less in fuel taxes to travel the same distance. Policymakers would have to make a number of decisions about how to design and implement new taxes in order to reach intended revenue targets and address highway users' equity and privacy concerns in the administration of those taxes.

*Impose a VMT Tax.* Instituting a tax on vehicle miles traveled would charge all vehicles for their highway use regardless of the vehicle's fuel efficiency or energy source. Such a tax could help allocate resources efficiently by making users pay for the costs they impose. However, it would present several challenges. A VMT tax would be more costly to administer than the current excise taxes on fuels. In addition, such a tax would raise privacy concerns if calculating and collecting the tax required the government to track people's movement and use of vehicles. Apart from those challenges, a VMT tax would have implications for equity that are similar to those of fuel taxes—namely, the burden, relative to income, would be greatest for lower-income households because the money paid in taxes for highway use would constitute a larger share of their total income than of higher-income households' total income.

Limiting a VMT tax to only commercial trucks would raise fewer of those concerns. Because many trucking companies already track their vehicles, implementing a VMT tax on only commercial trucks would require overcoming fewer administrative and privacy hurdles than implementing such a tax on all vehicles would.

To establish a truck VMT tax, lawmakers would have to consider three sets of questions:

- Which types of trucks would be subject to the tax, and travel on which roads would be subject to the tax?
- What would the rates be for different trucks and for different roads?
- How would the tax be assessed, and how would payments be made?

<sup>4</sup>See Federal Highway Administration, *Addendum to the 1997 Federal Highway Cost Allocation Study Final Report* (May 2000), Tables 4 and 6, [www.fhwa.dot.gov/policy/hcas/addendum.cfm](http://www.fhwa.dot.gov/policy/hcas/addendum.cfm).

<sup>5</sup>See Oregon Department of Administrative Services, Office of Economic Analysis, *Highway Cost Allocation Study, 2019–2021 Biennium* (prepared by ECONorthwest, 2019), [www.oregon.gov/das/OEA/Pages/hcas.aspx](http://www.oregon.gov/das/OEA/Pages/hcas.aspx).

**Table 1.—Estimated Annual Revenues From a VMT Tax of 5 Cents per Mile if One Had Been in Place in 2017**

Billions of 2017 Dollars

	All Trucks	Combination Trucks <sup>1</sup>
All Roads	12.8	8.0
Interstates and Arterial Roads	10.1	7.0
Interstates	5.3	4.2

Data source: Congressional Budget Office. See [www.cbo.gov/publication/57206#data](http://www.cbo.gov/publication/57206#data).

VMT = vehicle miles traveled.

<sup>1</sup>Tractors pulling one or more trailers.

Establishing and operating a program to collect a VMT tax on commercial trucks would entail not only costs to set up the program, including capital costs for new equipment, but also ongoing administrative and enforcement costs that are likely to be higher than the costs to administer fuel taxes. Whereas gasoline and diesel-fuel taxes can be administered at low cost because they are collected from a small number of firms (the taxes are assessed at roughly 1,300 fuel distribution terminals nationwide, and the number of distinct firms is smaller), a VMT tax would be collected from truck owners and thus would have a larger share of its gross revenues offset by implementation costs.<sup>6</sup>

In a 2019 analysis, CBO considered the effects on revenues of several possible formulations of a VMT tax on commercial vehicles.<sup>7</sup> One example suggested that if a 5-cent tax per mile traveled by trucks had been in place in 2017, it would have generated between \$4 billion and \$13 billion in revenues that year, depending on the types of trucks and roads that the tax applied to. If a per-mile tax was applied to all commercial trucks on all roads, each cent of tax would generate \$2.6 billion. Taxing all trucks, including box and large pickup trucks, would raise more revenues than taxing only combination trucks. Similarly, revenues would be greater if the tax applied to travel on all public roads than they would be if it applied only to travel on Interstates or on Interstates and arterial roads (see Table 1).

Those estimated revenues do not include any offset to account for reduced revenues from income and payroll taxes. Such an offset, which CBO and JCT employ when estimating the effects of legislative proposals that would raise excise tax revenues, would vary over time, depending on tax rates and economic projections. In calendar year 2021, the offset is 21 percent.<sup>8</sup>

More recently, JCT has estimated the change in Federal revenues that would result from imposing a new excise tax of 30 cents per mile on freight transport by heavy trucks, starting January 1, 2022. Such a tax, applied only to certain heavy trucks while carrying freight, would increase net revenues to the Federal Government by \$33 billion in 2023, the first full year it would be in place. From 2022 through 2031, Federal revenues would increase by \$337 billion.

Those estimates, which are net of reductions in income and payroll tax receipts that would partially offset the increase in excise taxes, reflect an assumption that an effective administrative framework is in place when the tax goes into effect. That would be challenging, however. Such a framework would require that an electronic device that was either acquired by taxpayers or built into vehicles by manufacturers be used to track miles. Furthermore, the information logged by the device would need to be securely and accurately transmitted to the Internal Revenue Service (IRS), and an independent verification system would be required for successful collection of the tax. If the IRS did not have an effective and automated way to match individual trucks and railcars to particular taxpayers and verify that the miles reported were accurate, some taxpayers might underreport their mileage or fail to report any mileage at all. If effective electronic data matching was not implemented, discrepancies would only be caught by auditing, which requires significant re-

<sup>6</sup>Internal Revenue Service, “Terminal Control Number (TCN)/Terminal Locations Directory” (accessed May 12, 2021), <https://go.usa.gov/xV5PB>.

<sup>7</sup>See Congressional Budget Office, *Issues and Options for a Tax on Vehicle Miles Traveled by Commercial Trucks* (October 2019), [www.cbo.gov/publication/55688](http://www.cbo.gov/publication/55688).

<sup>8</sup>Joint Committee on Taxation, *Updated Income and Payroll Tax Offsets to Changes in Excise Tax Revenues for 2021–2031*, JCX–11–21 (February 23, 2021), [www.jct.gov/publications/2021/jcx-11-21/](http://www.jct.gov/publications/2021/jcx-11-21/).

sources. At present, those systems do not exist, and their development would take both time and government resources.

Furthermore, the number of taxpayers and vehicles subject to the tax would be substantial. Many of those taxpayers would have no prior excise tax filing requirement and no experience with the excise tax system. As a result, the IRS would need to undertake significant outreach to educate them about the new tax and the record-keeping it would require. The amount of revenues collected from a tax on vehicle miles depends greatly on the extent of compliance, and JCT's estimate should be viewed as entirely conceptual, because it does not take into account those factors.

*Institute a Tax or Fee on Electric Vehicles.* Under current law, drivers of EVs pay little or no Federal or State fuel taxes. (EVs include plug-in hybrid vehicles, which combine a gasoline engine with a battery-powered electric motor that can be recharged by plugging it into an external electricity source, as well as all-electric vehicles, which run solely on battery power.) However, many States have begun charging owners of EVs an annual fee, typically from \$50 to \$200.

In 2019, total Federal gasoline taxes paid for each light-duty vehicle averaged about \$100. If the Congress imposed an annual tax of \$100, starting in October 2021, on all light-duty electric vehicles, the revenues generated by that tax would average about \$0.2 billion per year from fiscal years 2022 through 2026. That amount would equal 1.6 percent of the highway trust fund's cumulative shortfall over that 5-year period, according to CBO's baseline budget projections as of February 2021.<sup>9</sup> Such a tax would be similar to the existing annual use tax on heavy vehicles in that it would apply to all vehicles with a certain characteristic—in this case, that they run on electricity.<sup>10</sup> If the tax was not applied to plug-in hybrids, the amount of money collected would be smaller, and operators of those vehicles would not have to pay both that tax and gasoline taxes.

Those estimates rely on the Energy Information Administration's projections of the number of light-duty electric vehicles and on the FHWA's estimates of fuel consumption by light-duty vehicles.<sup>11</sup> CBO's estimate of revenues from a tax on electric vehicles does not account for two factors, however. One is that imposing such a tax would reduce taxable business and individual income, resulting in decreases in income and payroll tax receipts that would not affect the highway trust fund but would, in the overall budget, partially offset the amount of money collected from the new tax. In addition, the estimate does not account for the cost of the administrative and auditing systems that would have to be in place once the tax went into effect. The development of such a framework would take time and funding. Outreach to owners of electric vehicles would be necessary as well.

*Establish a Highway Freight Tax.* An alternative option for raising highway revenues would be to institute a new tax on freight traveling by highway that was similar to the taxes currently collected on freight transported by plane or by ship. Taxes on freight transportation could raise a substantial amount of money relative to the shortfall in the highway trust fund, but the amount of revenues generated would depend on what was taxed and what rate was set. Implementing a highway freight tax would require policymakers to make decisions about which freight shipments would be taxed and to design and implement a system to collect those taxes. Those choices would determine the capital costs of setting up the system as well as the ongoing costs to administer it and enforce collections.

The taxes on freight transported by plane and by ship provide two different models of how a tax on freight transported by trucks might work. The tax on domestic cargo transported by air is one of several sources of revenues credited to the airport and airway trust fund—the primary funding source for the Federal Aviation Administration and for Federal grants to airports. If policymakers used that tax as a model for designing a freight tax on cargo transported by truck, they would need to decide which shipments to include and which shipping fees to tax. A trucking industry association reported that total revenues for the industry were about \$800 bil-

<sup>9</sup>Congressional Budget Office, "Details About Baseline Projections for Selected Programs: highway trust fund Accounts" (February 2021), [www.cbo.gov/publication/51300](http://www.cbo.gov/publication/51300).

<sup>10</sup>See Joint Committee on Taxation, *Overview of Selected Provisions and Options Relating to Funding and Financing Infrastructure Investments*, JCX-2-20 (January 27, 2020), [www.jct.gov/publications/2020/jcx-2-20](http://www.jct.gov/publications/2020/jcx-2-20).

<sup>11</sup>U.S. Energy Information Administration, *Annual Energy Outlook 2021* (February 2021), Table 39, [www.eia.gov/outlooks/aeof/](http://www.eia.gov/outlooks/aeof/); and Federal Highway Administration, Office of Highway Policy Information, "Highway Statistics 2019" (November 2020), Table VM-1, <https://go.usa.gov/xHdwq>.



lion in calendar year 2019, though that includes only primary shipments (that is, the first movement of freight from an origin to a destination), not secondary shipments by truck.<sup>12</sup>

Cargo transported by ship is taxed differently. The freight tax on ship cargo, which through the harbor maintenance trust fund provides half of the funds for Federal spending on harbor maintenance, is assessed on the value of domestic and imported cargo moving through ports on the coasts and Great Lakes. (Exports are not subject to the tax because the Constitution forbids the taxation of exports.) Policymakers seeking to implement a similar tax on freight shipped by trucks over the Nation's highways would face decisions about which cargo would be subject to such a tax and about how to value those shipments. In 2017, the value of shipments sent by truck in the United States—including intermediate and finished goods and imported and exported goods—totaled nearly \$10.5 trillion.<sup>13</sup>

**Transfer General Revenues.** Since 2008, lawmakers have transferred more than \$150 billion from general revenues to the highway trust fund. Most recently, in October 2020, the Continuing Appropriations Act, 2021 and Other Extensions Act (Public Law 116–159) authorized a transfer of more than \$10 billion to the highway account and \$3 billion to the transit account. Further transfers could supplement the revenues collected from the excise taxes dedicated to highway and transit programs. In CBO's 10-year baseline projections, which reflect the assumptions that excise taxes are continued at their current rates and that current funding for highway and transit programs increases annually at the rate of inflation, outlays from the highway account exceed accumulated balances and annual cash inflows in 2022, as do outlays from the transit account. In the highway account, the cumulative shortfall over the 2022–2031 period is projected to be \$141 billion; the cumulative shortfall in the transit account over the 2022–2031 period is projected to be \$55 billion.

Using general revenues to fund Federal highway spending on an ongoing basis would have the effect of decoupling spending from the user charges that pay for that spending, but that approach has two advantages. First, if taxes were increased to pay for highway programs, the incremental costs of collection would be negligible because income taxes and other broad-based taxes are already in place. In addition, compared with several of the other options for increasing the amounts credited to the highway trust fund, funding highways through broad-based taxes would have the advantage of not imposing a larger burden, relative to income, on lower-income households.

Funding highway programs with general revenues instead of taxes on highway users would also have some disadvantages. If spending on other programs was reduced to pay for highway programs, the benefits of highway investments would be at least partially offset by a reduction in the benefits that would have been provided by that other spending. If, instead, lawmakers chose to pay for highway programs by taking on additional debt, such a policy would tend to slow the economy in the long term by reducing the amount of money available for private investment.<sup>14</sup> Finally, if highway spending was less connected to highway-use taxes, users would have a reduced incentive to drive less or to conserve fuel, and any gains in fairness and efficiency from a system in which users pay for the benefits they receive would be reduced or eliminated.

#### FEDERAL SUPPORT FOR STATE AND LOCAL BORROWING FOR HIGHWAY SPENDING

In addition to providing grants to State and local governments to pay for highway capital projects, the Federal Government also supports State and local investment in highways through a variety of mechanisms that reduce the cost of their borrowing. In some cases, that Federal support comes through forgone Federal tax revenues. Other mechanisms appear as spending in the Federal budget. The Federal cost of each dollar of financing provided to State and local governments varies for the different mechanisms.

To finance investments in highways, State and local governments issue bonds to obtain funds that they repay over time; to a lesser extent, they also borrow from the Federal Government. Financing allows State and local governments to pay for

<sup>12</sup>American Trucking Association, "Economics and Industry Data" (accessed May 10, 2021), [www.trucking.org/economics-and-industry-data](http://www.trucking.org/economics-and-industry-data).

<sup>13</sup>Census Bureau, "CFS Preliminary Report: Shipment Characteristics by Mode of Transportation: 2017" (accessed May 10, 2021), <https://go.usa.gov/xvuZG>.

<sup>14</sup>See Congressional Budget Office, *The Macroeconomic and Budgetary Effects of Federal Investment* (June 2016), [www.cbo.gov/publication/51628](http://www.cbo.gov/publication/51628).

highways and other infrastructure over a period that more closely matches the useful life of that infrastructure. Financing can be particularly attractive when a government does not have the resources on hand that are required to fund a desired investment. However, financing is not a source of revenues; it is a means of making future State and local revenues available to pay for projects sooner. Future revenues committed to paying back funds that are borrowed today will not be available to pay for projects in the future.

Of the available federally supported financing mechanisms, tax-preferred bonds are the one that States and localities have used most frequently to finance highway infrastructure. Most of those tax-preferred bonds are tax-exempt bonds, but tax credit bonds, which are no longer authorized to be sold, have been used in the past and still affect the Federal budget. Another financing mechanism, direct Federal credit programs, offers loans or loan guarantees to State and local governments for highway projects. Finally, States can establish infrastructure banks to finance highway projects, but the use of that financing mechanism for such purposes is not widespread.

From 2007 to 2016, CBO estimates, an average of \$20 billion (in 2019 dollars) each year, or about one-fifth of the public sector's total capital spending on highways, involved federally supported financing.<sup>15</sup> That federally supported financing accounted for 37 percent of the \$54 billion (in 2019 dollars) that State and local governments spent, on average, each year for highway capital projects from funds other than Federal grants over that period.

#### *Tax-Preferred Bonds*

State and local governments frequently issue bonds, which they sell to investors, to raise money to pay for capital investments in highways and other infrastructure. Tax-exempt bonds are the most frequently used federally supported financing mechanism. The interest paid on such bonds is generally exempt from Federal income tax, so issuers can pay a lower interest rate than private bonds would pay and still attract investors. But to attract enough investors, issuers must pay a higher interest rate than they would need to pay to attract some investors. Some of the Federal subsidy goes to those investors who would have purchased the bonds at a lower interest rate and thus does not provide a benefit to the issuer.

Although the Federal Government does not currently authorize State and local governments to issue tax credit bonds, when such bonds were issued in the past, the Federal subsidy was paid either as an annual credit against bondholders' Federal income tax liability (instead of, or sometimes in addition to, the interest that typically would be paid) or as a direct payment to the bonds' issuer that was equal to a portion of the interest paid to the bondholder. All of the benefit of the Federal subsidy for tax credit bonds could, therefore, go to the State or local government issuing the bond.

Federal subsidies for tax-preferred bonds are paid through reductions in taxes or spending from the general fund, so neither tax-exempt bonds nor tax credit bonds affect outlays from the highway trust fund.

**Tax-Exempt Bonds.** From 2007 to 2016, State and local governments issued an average of \$15 billion (in 2019 dollars) of new tax-exempt bonds for highway projects per year (see Table 2). Such bonds accounted for about three-quarters of the new federally supported highway financing in those years.<sup>16</sup> State and local governments rely on several different sources of funds to repay that borrowing, including general revenues and fuel and vehicle-related taxes. In addition, some highway projects generate revenues to repay bondholders from tolls. State and local governments may also issue grant anticipation revenue vehicle (GARVEE) bonds, which are backed by expected future Federal grants. All of those financing options provide State and local governments substantial latitude in choosing which public-purpose projects to finance with bond proceeds.

Another type of tax-exempt bond, qualified private activity bonds (QPABs), may be used to finance projects that are undertaken mainly by private entities. The State or local government issues such bonds on the private entity's behalf after receiving approval from the Federal Department of Transportation. The total amount

<sup>15</sup> See Congressional Budget Office, *Federal Support for Financing State and Local Transportation and Water Infrastructure* (October 2018), [www.cbo.gov/publication/54549](http://www.cbo.gov/publication/54549).

<sup>16</sup> That amount does not include the issuance of "refunding" bonds, which are used to pay off bonds that have already been issued.

authorized to be issued as highway QPABs nationwide is currently capped at \$15 billion.

For every dollar of tax-exempt bonds with a 20-year repayment period issued in 2021, Federal tax revenues would be reduced by 23 cents, CBO estimates, because the interest paid on those bonds would be exempt from Federal taxes. If the average annual amount of new bond financing from 2021 to 2025 was the same as it was from 2007 to 2016, the Federal revenues forgone for those bonds would be about \$3 billion per year.

**Table 2.—Selected Federally Supported Mechanisms That State and Local Governments Use to Finance Highway Infrastructure**

Mechanism	Average Annual Amount of New Financing, 2007 to 2016 (billions of 2019 dollars)	Estimated Federal Cost of New Financing Provided in Fiscal Year 2021 (cents per dollar financed) <sup>1</sup>	Type of Federal Support	Examples
Tax-Exempt Bonds	15	23	Forgone tax revenues	Traditional tax-exempt government bonds; grant anticipation bonds; qualified Private Activity Bonds
Tax Credit Bonds	4 <sup>2</sup>	28 percent less than tax-exempt bonds providing the same subsidy to issuers <sup>3</sup>	For traditional tax credit bonds, forgone tax revenues; for direct-pay bonds, such as Build America Bonds, mandatory spending	Build America Bonds
Direct Federal Credit Programs	2	1 (FCRA accounting); 24 (fair-value accounting) <sup>4</sup>	Discretionary appropriations <sup>5</sup>	TIFIA program

Data source: Congressional Budget Office. See [www.cbo.gov/publication/57206#data](http://www.cbo.gov/publication/57206#data). FCRA = Federal Credit Reform Act of 1990; TIFIA = Transportation Infrastructure Finance and Innovation Act.

<sup>1</sup>The estimate for tax-exempt bonds is based on 20-year financing; the estimate for direct Federal credit programs is for loans from the TIFIA program, which commonly have terms of 30 to 35 years. All estimates are discounted present values—that is, they express related current and future cash flows as an equivalent lump sum paid when the financing is provided.

<sup>2</sup>The average reflects the Build America Bonds that were issued for highway projects in 2009 and 2010, the only 2 years in which those bonds were authorized to be sold.

<sup>3</sup>No current program allows such bonds to be issued for transportation infrastructure.

<sup>4</sup>These estimates are for direct loans from the TIFIA program. The FCRA estimate is from the Office of Management and Budget. CBO's fair-value estimate reflects the market value of the financial risk associated with the program.

<sup>5</sup>The largest direct Federal credit program for transportation, the TIFIA program, is formally funded by contract authority, which is a form of mandatory budget authority. However, use of that contract authority is controlled by limitations on obligations contained in annual appropriation acts.

Much of that Federal cost represents benefits to the State and local governments that issue the bonds (by allowing them to offer a lower interest rate on their bonds), but some of that cost goes to benefits that accrue only to certain bondholders. Bondholders with higher marginal tax rates save more than those with lower marginal tax rates. To appeal to some investors whose tax rates are lower or who find the bonds less attractive for other reasons, bond issuers must offer interest rates that are higher than those required to attract investors with higher tax rates. The benefits received by those bondholders who save more in taxes than is necessary to compensate them for the lower interest rates of the tax-exempt bonds represent costs to the Federal Government that do not benefit the bond issuers.

**Tax Credit Bonds.** The Federal Government has also supported the issuance of tax credit bonds by State and local governments at certain times. Most recently, State and local governments were authorized to issue Build America Bonds in 2009 and 2010. Those direct-pay tax credit bonds required the Federal Government to

make cash payments to the bonds' issuer equal to a portion of the interest that the issuer paid to bondholders. That allowed the issuer to offer a higher rate of return on the bonds, which was necessary to offset the tax liability that bondholders would incur on the interest they received. For every \$100 in interest paid to holders of Build America Bonds, an issuer would receive \$35 from the Federal Government, resulting in a credit rate of 35 percent. For tax credit bonds that were authorized in earlier periods, the form of Federal support differed: An annual Federal income tax credit was provided to bondholders instead of, or in addition to, the interest that would typically be paid on the bonds.

The cost to the Federal Government of tax credit bonds depends on the amount of subsidy that is authorized. Tax credit bonds could, however, provide the same amount of support to their issuers as tax-exempt bonds at a Federal cost that is 28 percent lower than that of tax-exempt bonds, CBO estimates. That difference exists because the entire Federal cost of a tax credit bond benefits the issuer, whereas part of the cost of tax-exempt bonds provides a subsidy to bondholders with high marginal tax rates.

#### *Direct Federal Credit Programs*

The Transportation Infrastructure Finance and Innovation Act (TIFIA) program provides credit assistance to State and local governments primarily for highway and mass transit infrastructure, although it can be used for a broad range of surface transportation projects. Spending for the TIFIA program comes out of the highway trust fund.

The Department of Transportation must approve a State or local government's application for TIFIA assistance. To qualify, a project generally must cost at least \$50 million, though the minimum cost is lower for rural or local projects (\$10 million) and for intelligent transportation system projects (\$15 million). Projects receiving TIFIA assistance are expected to attract other public and private investment in addition to the Federal support. Examples of TIFIA-funded projects include the Central 70 Project in Colorado, which is redesigning, reconstructing, and adding capacity to a section of Interstate 70 in Denver; the Monroe Expressway toll road in North Carolina; and the Portsmouth Bypass in Ohio.

The TIFIA program lends at Treasury bond rates for up to 35 years. In addition, repayment is deferred until 5 years after a project is substantially complete, and TIFIA loans have a subordinated status, meaning that a project's other lenders and equity investors retain rights to be repaid before the Federal Government (unless the borrower defaults and enters bankruptcy, in which case the TIFIA loan takes a priority equal to that of the project's senior debt). In practice, TIFIA loan amounts have typically been limited to about 33 percent of a project's eligible costs, though borrowers may apply for loans of up to 49 percent of eligible costs.

The budgetary cost of TIFIA loans depends on the riskiness of the loans made and thus varies from year to year. In 2019, TIFIA provided about \$1.5 billion in loans; to do so, it used \$98 million of its budget authority at an estimated subsidy rate of 6.3 percent, or a Federal cost of 6.3 cents per dollar financed.<sup>17</sup> To estimate the subsidy rate for loans made in a given year, the Department of Transportation uses a model that it recently updated in consultation with the Treasury Department and the Office of Management and Budget (OMB). Using that model, OMB estimates that the subsidy rate of loans made in 2021 will be 1 percent.<sup>18</sup>

Those official budgetary estimates do not reflect the cost of market risk—the risk that arises because borrowers are more likely to default on their debt obligations when the economy is performing poorly.<sup>19</sup> Taking that risk into account, CBO esti-

<sup>17</sup>Budget authority is the authority provided by law to incur financial obligations that will result in immediate or future outlays of Federal Government funds. The subsidy rate is an estimate of how much a type of credit assistance from a given program costs the Federal Government per dollar disbursed; it is calculated according to the method specified in the Federal Credit Reform Act of 1990. For budgetary purposes, the subsidy rate is calculated by the Office of Management and Budget and is applied to the amounts appropriated to a Federal credit program to determine the volume of loans the program can provide. See Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2020: Analytical Perspectives* (March 2019), Table 22–2, [www.govinfo.gov/app/details/BUDGET-2020-PER/](http://www.govinfo.gov/app/details/BUDGET-2020-PER/); and Federal Highway Administration, Center for Innovative Finance Support, “Transportation Infrastructure Finance and Innovation Act (TIFIA)” (accessed May 10, 2021), <https://go.usa.gov/xvJxs>.

<sup>18</sup>Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2021: Credit Supplement* (February 2020), Table 1, [www.govinfo.gov/app/details/BUDGET-2021-FCS](http://www.govinfo.gov/app/details/BUDGET-2021-FCS).

<sup>19</sup>Market risk is the component of financial risk that remains even after investors have diversified their portfolios as much as possible; it arises from shifts in macroeconomic conditions,

mates that the loans made under the program in 2021 will have a subsidy rate of 24 percent. Those rates may increase in subsequent years when Treasury interest rates are projected to rise as the economy recovers from the disruptions caused by the pandemic.

#### *State Infrastructure Banks*

State infrastructure banks are financial institutions that State governments create and run to lend money to fund infrastructure projects. SIBs established for highway and mass transit projects do not receive designated Federal grants each year, but State governments may decide to use some of the Federal formula grants that they receive for highways and mass transit to capitalize them. Some banks choose to increase their current lending capacity by issuing tax-exempt bonds, thus receiving a second form of Federal support. Most of the financial support that SIBs have provided has gone to highway projects.

Of the 33 States that have established SIBs, only about a dozen have actively used them. From 2007 to 2016, average annual financing for highway infrastructure provided by SIBs amounted to \$200 million (in 2019 dollars), or about 1 percent of the total amount of new financing by State and local governments that the Federal Government subsidized each year. The data necessary to estimate the Federal costs of financing SIBs are unavailable.<sup>20</sup>

#### *Options*

Changes to Federal programs that support the financing of State and local highway capital projects could expand the amount of investment in Federal-aid highways by making State and local investments less costly to finance. Policymakers could expand the use of tax-exempt bonds. Or they could establish a new program to provide State and local governments with the opportunity to issue new tax credit bonds. In addition, they could increase the use of TIFIA loans. Another option Federal lawmakers could pursue is to allow more tolling on Interstate highways, thereby providing States with a revenue stream they could borrow against. If any of those options were implemented and State and local governments expanded their use of the financing mechanisms, the Federal costs would, in most cases, take the form of forgone Federal revenues. TIFIA outlays, however, are paid out of the highway trust fund, so expansions of that program would affect the shortfall in the trust fund.

**Raise the Cap on Highway QPABs.** Of the \$15 billion in Qualified Private Activity Bonds allowed to be issued for highway and other surface transportation projects, about \$13.5 billion in such bonds had been issued as of April 2021, and another \$1.2 billion in such bonds had been approved by the Department of Transportation but had not yet been issued. (In the past, some projects that received a QPAB allocation switched to other forms of financing, so some of those bonds that have had funds allocated for them but that have not been issued may never be issued.)<sup>21</sup>

Giving private entities access to the tax-exempt bond market through QPABs lowers the cost of capital for those borrowers and can promote infrastructure projects when State and local governments have self-imposed limits on borrowing. Development of large, complex infrastructure projects often takes years, so the limit on the use of QPABs for funding highway and surface transportation projects reduces the certainty that the bonds would still be available if developers chose to apply for them in the future.

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such as productivity and employment, and from changes in expectations about future macroeconomic conditions. An approach that takes that risk into account is called a fair-value approach. See Congressional Budget Office, *Measuring the Cost of Government Activities That Involve Financial Risk* (March 2021), [www.cbo.gov/publication/56778](http://www.cbo.gov/publication/56778), and *Estimates of the Cost of Federal Credit Programs in 2021* (April 2020), [www.cbo.gov/publication/56285](http://www.cbo.gov/publication/56285).

<sup>20</sup>In 2018, CBO estimated that the Federal cost of direct loans and leveraged loans (those made using the proceeds of bond issues) made in 2023 by the Clean Water State Revolving Funds program and the Drinking Water State Revolving Funds program would be 23 cents and 43 cents per dollar financed, respectively. See Congressional Budget Office, *Federal Support for Financing State and Local Transportation and Water Infrastructure* (October 2018), [www.cbo.gov/publication/54549](http://www.cbo.gov/publication/54549). If those costs were estimated today, they would reflect very different interest rates for Treasury bonds and tax-exempt bonds from those that were anticipated in 2018. How well such estimates would correspond to the costs of loans from transportation SIBs is unclear.

<sup>21</sup>See Department of Transportation, "Private Activity Bonds" (April 19, 2021), <https://go.usa.gov/xv6NQ>.

If the availability of QPABs increased and their use became more widespread, Federal costs would go up. Like tax-exempt bonds, QPABs result in forgone Federal revenues. Private funding might be available to some developers without QPABs (albeit at a higher cost); if so, the projects that would be unable to receive financing without them would be those of marginal value.

**Institute a Tax Credit Bond Program.** Instituting a new tax credit bond program that was similar to the Build America Bonds program that was active in 2009 and 2010 would provide State and local governments with an additional option for issuing debt to finance capital spending. Tax credit bonds could offer State and local governments the same Federal subsidy as tax-exempt bonds at a lower cost to the Federal Government.

Whereas CBO estimates that 20-year tax-exempt bonds issued by State and local governments in 2023 would cost the Federal Government 26 cents for each dollar financed, tax credit bonds issued that same year (with the same maturity and the same Federal subsidy of a 22-percent reduction in interest costs) would cost the Federal Government 19 cents per dollar financed. In other words, for the same Federal cost as traditional tax-exempt bonds, the Federal Government could, by authorizing tax credit bonds, provide State and local governments with a subsidy that was almost 40 percent larger, thereby reducing their financing costs more than tax-exempt bonds would. Ultimately, the Federal cost of such a program would depend on the amount of subsidy that lawmakers authorized and the amount of bonds that State and local governments issued.

Tax credit bonds might offer one further advantage over tax-exempt bonds—they might appeal to a broader set of investors, particularly those with little or no tax liability, such as pension funds and other tax-exempt organizations.

**Expand the TIFIA Program.** From 2015 through 2019, 19 highway and bridge projects received financing through the Transportation Infrastructure Finance and Innovation Act program. The average total cost per project was \$1 billion, and each received, on average, \$314 million in TIFIA loans. The smallest project to receive assistance had a total cost of \$127 million; the TIFIA loan for that project totaled \$47 million.

The financing assistance provided through TIFIA is paid for with outlays from the highway trust fund, so expanding the program would increase the trust fund's shortfall if no changes were made to the revenues credited to the fund.

Lawmakers have at least two options for expanding TIFIA financing:

- **Increase the maximum Federal share of eligible projects' costs.** By law, the maximum share of costs that can be financed through the program is 49 percent, but in practice, the Department of Transportation has not provided more than about one-third of a project's cost in TIFIA assistance. At the end of 2019, TIFIA assistance accounted for an average of 28 percent of the total cost of each of the active projects funded by the program.
- **Extend TIFIA assistance to a wider variety of projects.** To be eligible for TIFIA assistance, a project's costs must generally exceed \$50 million, though lower minimums are set for rural or locally sponsored projects. In practice, however, no projects with estimated costs of less than \$50 million have received TIFIA assistance.

**Allow States to Collect Tolls on Interstate Highways.** With a few exceptions, Federal law does not permit States to collect tolls on existing Interstate highways. Allowing them to do so would offer a new source of revenues that State and local governments could use to back bonds for capital projects or to attract private developers that would provide financing for a public-private partnership. If any of the financing mechanisms supported by the Federal Government were used for such projects, Federal costs would increase, either through lending programs, such as TIFIA, or through the Federal subsidies provided for financing mechanisms, such as tax-exempt bonds.

QUESTIONS SUBMITTED FOR THE RECORD TO JOSEPH KILE, PH.D.<sup>1</sup>

## QUESTIONS SUBMITTED BY HON. ROB PORTMAN

## INFRASTRUCTURE BANKS

*Question.* You noted in your testimony that only about a dozen States use their infrastructure banks despite 33 having enabling legislation on the books. Further, you indicated that from 2007–2016, the average annual financing for highway infrastructure provided by State infrastructure banks amounted to \$200 million, or about 1 percent of new financing by State and local governments.

Can you discuss what barriers exist to increased use of State infrastructure banks?

*Answer.* State infrastructure banks and revolving funds—financial institutions that State governments create and run to lend money for infrastructure projects—are used less often for surface transportation than for water utilities. One reason is that State infrastructure banks do not receive Federal grants that are specifically designated to capitalize them, unlike revolving funds for water infrastructure. As a result, infrastructure banks for water utilities typically offer more favorable loan terms than infrastructure banks for highways. Meanwhile, States must choose between allocating Federal grant money to capitalize a State infrastructure bank for highways or funding highway projects directly with that grant money. Another reason is that when State infrastructure banks issue loans to local governments, the local governments must repay the loans. Local governments can repay loans made for water projects with fees from users of the water utility. But highway projects often lack such revenue streams. Therefore, State and local governments frequently draw on the municipal bond market for highway projects rather than on State infrastructure banks.

State infrastructure banks are attractive sources of financing for local highways and transit projects when the financing is cheaper for local entities than the cost of issuing their own bonds, such as when local entities want to finance relatively small amounts of capital. State banks can generally issue bonds on a larger scale; therefore, costs for underwriting, legal fees, and marketing are typically lower for them than for local entities.

State infrastructure banks for transportation have also proved advantageous when financing has needed to be executed quickly. After some natural disasters, loans provided by those banks have provided temporary funding for relief, allowing recovery efforts to start before Federal grant money for disaster relief was received.

*Question.* There have been several congressional proposals for the creation of a Federal infrastructure bank. While often there is an appropriation to start the bank, many of these proposals assume a 10:1 debt-to-equity ratio and an ability to leverage \$100 billion or more in infrastructure investment.

Could you describe the way leverage in a national infrastructure bank could be used to stretch the Federal dollars? That is—to get more investment in infrastructure at a smaller Federal price tag?

*Answer.* The Federal Government can provide grants, loans, and other credit assistance, and tax preferences to help State and local governments (or the private sector) build infrastructure. Loans and tax preferences for borrowing cost the Federal Government less than grants because loans and borrowed funds are eventually repaid and grants are not. Infrastructure projects that generate user fees, tolls, or another form of revenue are better candidates for loans than projects that do not generate funds that could be used to repay the loan.

Spending by a national infrastructure bank that was funded and controlled by the Federal Government would be included in the Federal budget. Because of the Federal Credit Reform Act of 1990, such a national infrastructure bank would not be able to revolve loans (that is, relend loan repayments) in the same way that State infrastructure banks can. Alternatively, spending by a national infrastructure bank that was independent of Federal control would be outside the Federal budget. However, to attract additional capital to leverage the initial funding by the Federal Government, an independent bank—one that the Federal Government was not obliged

<sup>1</sup> See testimony of Joseph Kile, Director of Microeconomic Analysis, Congressional Budget Office, before the Senate Committee on Finance, “Options for Funding and Financing Highway Spending” (May 18, 2021), [www.cbo.gov/publication/57206](http://www.cbo.gov/publication/57206).

to support—would have to subsidize providers of additional capital to compensate them for the increased risk of losing money on their investments. Such subsidies are an additional cost for the Federal Government.

Some State and local infrastructure banks issue tax-preferred debt to leverage their Federal funding, which increases the Federal Government's costs by reducing the amount of taxes it collects. To illustrate the impact on the Federal Government, CBO projected that loans from State infrastructure banks will cost the Federal Government 23 cents in 2023 (as a representative future year) for every dollar financed; if those banks leveraged their Federal funds by issuing tax-exempt bonds, the cost to the Federal Government would rise to 43 cents for every dollar financed.<sup>2</sup>

Some Federal programs that serve particular kinds of infrastructure have many of the characteristics of a national infrastructure bank. For instance, the Transportation Infrastructure Finance and Innovation Act (TIFIA) program provides loans, loan guarantees, and lines of credit to help finance transportation projects. In 2019, TIFIA provided about \$1.5 billion in loans. TIFIA loans, which cover up to half of a project's costs, provide flexible repayment terms and more favorable interest rates than applicants could secure in private capital markets. Demand for TIFIA loans is limited, however, because the Federal Government requires borrowers to have a source of funding for repayment.

#### AIRPORTS' PASSENGER FACILITY CHARGES

*Question.* The passenger facility charge that helps fund airport maintenance and improvement is currently capped at \$4.50 per flight segment with a maximum of two PFCs charged on a one-way trip or four PFCs on a round trip, for a maximum of \$18 total.

Does CBO have an estimation of how much revenue could be generated for airport maintenance if the passenger facility charge (PFC) was indexed to inflation starting from 2000? Starting from 2021?

*Answer.* Although PFCs are authorized by Federal law, they are collected by commercial airports that are controlled by nonfederal public agencies. Because the fees are not paid to the Federal Government, increasing them would not increase Federal revenues. Indeed, CBO and the staff of the Joint Committee on Taxation (JCT) expect that increasing the maximum allowable PFC would result in an increase in tax-exempt financing and a subsequent loss of Federal revenues.

If PFCs had been indexed to inflation beginning in 2000, the maximum charge per flight segment would be \$6.79 in 2022.<sup>3</sup> If that indexing continued through 2031 and airports charged the maximum fee, CBO estimates that airports would collect an additional \$25.7 billion from 2022 through 2031.

If PFCs were instead indexed to inflation from the current \$4.50 in 2021, CBO projects that the maximum fee per flight segment would be \$4.61 in 2022. If indexing of the 2021 amount continued through 2031 and airports charged the maximum fee, CBO estimates that airports would collect an additional \$5.1 billion from 2022 through 2031.

*Question.* How much revenue could be generated by an increase of the PFC by \$1.00? By \$2.00?

*Answer.* CBO estimates that increasing the maximum allowable PFC per flight segment by \$1 in 2022 would yield airports an additional \$8.5 billion in collections from 2022 through 2031. CBO projects that an increase of \$2 would yield \$17 billion in additional collections for airports over the same period.

#### FEEES ON ELECTRIC VEHICLES

*Question.* In your testimony, you note that an annual fee on light-duty electric vehicles would generate revenues averaging about \$0.2 billion per year over the next 5 years. I recognize that electric vehicles make up only 2 percent of the vehicles on the road today. However, the electric vehicle industry estimates a 30-percent growth rate in EV adoption over the next 10 years.

What would the implication of this growth be on annual fee revenue?

<sup>2</sup>See Congressional Budget Office, *Federal Support for Financing State and Local Transportation and Water Infrastructure* (October 2018), [www.cbo.gov/publication/54549](http://www.cbo.gov/publication/54549).

<sup>3</sup>CBO calculated inflation by using the chained consumer price index for all urban consumers.



Answer. CBO's estimate of the revenues from an annual fee on light-duty electric vehicles relied on the Energy Information Administration's projections of the number of light-duty electric vehicles. In those projections, the stock of electric vehicles in the United States grows by about 55 percent between 2022 and 2026, and sales of electric vehicles increase by about 15 percent a year, on average. If electric vehicles were adopted more quickly, those fee revenues would be higher. If annual sales growth was 30 percent, the number of electric vehicles would roughly double over the 2022–2026 period, and revenues would be about 20 percent more than CBO projected (that is, an average of \$0.3 billion per year, taking rounding into account).

Two additional factors would affect the net amount the government collected from an annual fee on electric vehicles. One, that fee would reduce taxable business and individual income. Those reductions and the decreases in income and payroll tax receipts that would follow would not affect the highway trust fund, but they would partially offset the amount of money the Federal Government collected from the new tax. Two, the administrative and auditing systems necessary to collect such a fee or tax might be challenging to implement. A system to identify owners of electric vehicles, assess a tax or fee, and collect it would have to be developed and would need to be funded.

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QUESTIONS SUBMITTED BY HON. JOHN BARRASSO

ELECTRIC VEHICLES

*Question.* Chairman Wyden has introduced legislation to provide a \$7,500 refundable tax credit for electric vehicles that will not begin to phase out until electric vehicles represent half of all U.S. vehicle sales.

Because electric vehicles do not support the highway trust fund, what impact will electric vehicles' representing 50 percent of U.S. vehicle sales have on the highway trust fund?

Answer. As electric vehicles become a larger share of the light-duty vehicle fleet, the highway trust fund's revenues will decline because drivers of electric vehicles do not pay fuel taxes. The Energy Information Administration projects that electric vehicle sales will account for about 7 percent of vehicle sales in 2031. If the Federal Government offered a \$7,500 refundable tax credit on electric vehicles and fuel-cell vehicles (fuel cells, another new technology, use hydrogen as an energy source), JCT projects that sales of those vehicles would account for 10 percent to 20 percent of light-duty vehicle sales by 2031. JCT did not project that electric vehicles would account for 50 percent of vehicle sales by 2031. If electric vehicles were adopted more rapidly than JCT projected, the highway trust fund's revenues would be lower than those in CBO's most recent baseline projections. If sales of electric vehicles were half of all sales of U.S. vehicles from 2028 to 2031, the trust fund's revenues would be roughly \$4 billion lower in 2031 than CBO projects. However, sales of electric vehicles would need to grow by 66 percent a year, on average, between now and 2028 to represent half of all vehicles sold annually.

*Question.* What are the estimated job losses within the auto manufacturing, auto parts, auto sales, and auto repair industries if electric vehicles represent 50 percent of all U.S. vehicle sales annually?

Answer. CBO has not analyzed the impact on employment of increases in sales of electric vehicles. That analysis would depend on where the electric vehicles and their key components were manufactured and whether their production was more or less labor-intensive than production of vehicles with internal combustion engines. (The National Highway Traffic Safety Administration assesses the domestic manufacturing content of different vehicle models each year.)<sup>4</sup> Because electric vehicles generally require less maintenance than conventional vehicles, employment in the auto repair industry would probably decline if sales of electric vehicles increased.

FUNDING FOR THE TRANSIT ACCOUNT OF THE HIGHWAY TRUST FUND

*Question.* Currently, the mass transit account within the highway trust fund receives revenues equivalent to 2.86 cents per gallon of highway motor fuels excise taxes.

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<sup>4</sup> See National Highway Traffic Safety Administration, "Part 583 American Automobile Labeling Act Reports" (accessed August 2, 2021), <https://go.usa.gov/xFXrs>.

Given the significant investment needed to modernize America's roads and bridges, what options are available for mass transit to create the necessary revenue stream to provide for future investments and maintenance of their own systems, rather than relying on allocations from the highway motor fuels excise taxes?

Answer. About two-thirds of the funding for public transit comes from subsidies provided by Federal, State, and local governments. At the Federal level, the highway trust fund's transit account receives revenue from the excise taxes on motor fuels and from the trust fund's highway account (an estimated \$1.2 billion is transferred from the highway account to the transit account each year). Those two sources of funds total \$64 billion over the 2022–2031 period, or 46 percent of the anticipated \$140 billion shortfall between spending and revenues in the highway account over that period, according to CBO's baseline projections from July 2021.

Additional funds for transit systems could come from State and local governments, transit users, or Federal sources other than excise taxes on motor fuels. States and localities, which account for about one-half of public transportation funding, could raise the taxes received by transit systems or impose new taxes. New taxes for State and local areas might include value capture strategies such as taxes on businesses or properties located near transit stations, which typically benefit most from the transit service. Such taxes could include sales taxes on goods sold within special districts, land value taxes (a levy on the value of unimproved land), and tax increment financing (in which a share of the revenues from real estate taxes is dedicated to transit), among others.<sup>5</sup> Transit agencies could also increase user fees. In 2019, before the pandemic, transit agencies' operating receipts (most of which come from passenger fares) totaled about \$20 billion. However, with fewer riders as a result of the coronavirus pandemic, raising fares may not increase revenues by much, and how much ridership will rebound is unclear. Additional funds could also be transferred from the Treasury's general fund; between 2008 and 2018, the Congress authorized \$29 billion in transfers to the transit account.

Alternatively, the Congress could prompt transit systems to reduce their use of Federal grants. About two-thirds of Federal outlays for transit are for capital spending. The Federal Government could limit its grants for capital spending to projects that rehabilitate existing facilities or replace worn-out or unsafe equipment, or it could stop making grants for capital spending and instead make grants only for operation and maintenance of transit systems. The Federal Government could also replace capital grants with Federal loans to transit systems or direct pay tax credit bonds.

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PREPARED STATEMENT OF VICTORIA F. SHEEHAN, PRESIDENT, AMERICAN  
ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

INTRODUCTION

Chairman Wyden, Ranking Member Crapo, and members of the committee, thank you for the opportunity to appear today and speak to the critical need to provide stable and predictable funding for the Federal transportation program, while also providing additional financing tools for States and local governments to access.

My name is Victoria Sheehan, and I serve as Commissioner of the New Hampshire Department of Transportation (NH DOT) and as president of the American Association of State Highway and Transportation Officials (AASHTO). Today, it is my honor to testify on behalf of the Granite State and AASHTO, which represents the State departments of transportation (State DOTs) of all 50 States, Washington, DC, and Puerto Rico.

First, allow me to express the State DOTs' collective and utmost appreciation for you—the members of the Senate Finance Committee. Your leadership on several important issues affecting State DOTs must be commended: the repeal of the \$7.6-billion rescission of highway contract authority in 2019; the extension of surface transportation programs through fiscal year 2021, while providing necessary funds to shore up the Federal highway trust fund for the duration of the extension; the \$10 billion in COVID–19 relief funding for State DOTs to help replace lost revenue in December 2020; and just as important, your firm commitment to getting the Fed-

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<sup>5</sup>For more information on value capture strategies, see Federal Highway Administration, "Value Capture" (accessed August 2, 2021), [www.fhwa.dot.gov/ipd/value-capture/](http://www.fhwa.dot.gov/ipd/value-capture/).

eral surface transportation bill done on time and possibly providing infrastructure funding as part of a future economic stimulus and recovery package.

I would like to emphasize the following issues as part of my testimony today: the importance of a timely reauthorization of Federal surface transportation programs; the need for a long-term funding solution for the highway trust fund; financing mechanisms can supplement, but not replace direct Federal funding; and the tangible economic benefits of investing in highway, transit, and other transportation infrastructure—both as part of the reauthorization effort and as part of any investment in the recovery from the current pandemic.

THE IMPORTANCE OF A TIMELY REAUTHORIZATION OF  
FEDERAL SURFACE TRANSPORTATION PROGRAMS

States like New Hampshire rely heavily upon the Federal surface transportation program in order to enable the necessary infrastructure investments for our citizens. A stable Federal surface transportation program has become even more crucial as New Hampshire and States across the country continue to recover from the impacts of the pandemic. Any delay in the reauthorization process—or even worse, a series of short-term extensions—would wreak havoc across the country and would impact not just State DOTs, but our partners such as local governments and the construction industry.

In New Hampshire it would impact projects in every county, with projects of all types and sizes being vulnerable, including roadway safety improvements, State of good repair work, as well as capacity improvements, and active transportation investments. Due to our inability to complete work in the winter months, even a short-term delay could have longer term impacts, especially if the timing was such that we could not confidently advertise projects and maximize the summer construction season.

While this committee is not generally responsible for developing surface transportation policies, you have the unenviable task of identifying and securing funding to pay for these programs. AASHTO members acknowledge the difficulty of the job ahead of you in the coming months, but we stand ready to work with this committee and others in Congress to find a funding solution that addresses the growing infrastructure investment needs across the country.

NEED FOR A LONG-TERM FUNDING SOLUTION FOR THE HIGHWAY TRUST FUND

For many years, Congress has struggled with how to address the insolvency of the Federal highway trust fund (HTF). Since 2008, Congress has had to transfer over \$150 billion from the general fund of the Treasury to the highway trust fund in order to maintain funding levels. While AASHTO is very grateful for this committee and Congress's unwillingness to reduce surface transportation investments, we recognize that general fund transfers do not provide the long-term solution needed to stabilize these important programs.

According to recently released baseline projections from the Congressional Budget Office, in order to simply maintain the current HTF spending levels adjusted for inflation after the current extension of the Fixing America's Surface Transportation (FAST) Act, Congress will need to identify \$74.8 billion in additional revenues for a 5-year bill through 2026; \$97.2 billion would be needed to support a 6-year bill through 2027 for both the highway and transit accounts.

At the same time, the purchasing power of HTF revenues has declined substantially mainly due to the flat, per-gallon motor fuel taxes that have not been adjusted since 1993, losing over half of their value in the last 28 years. This loss of purchasing power is especially stark when compared to cost of other basic goods and services during the same time period.

**Exhibit 1: Purchasing Power Loss of the Gas Tax Relative to  
Other Household Expenses**

Item	Description	1993	2015	Percent Change
<b>College Tuition</b>	Average Tuition and Fees at Public 4-year Universities	\$1,908	\$9,145	379%
<b>Health Care</b>	National Expenditure Per Capita	\$3,402	\$9,523	180%

**Exhibit 1: Purchasing Power Loss of the Gas Tax Relative to  
Other Household Expenses—Continued**

Item	Description	1993	2015	Percent Change
<b>House</b>	Median New Home Price	\$118,000	\$292,000	147%
<b>Gas</b>	Per Gallon	\$1.08	\$2.56	137%
<b>Beef</b>	Per Pound of Ground Beef	\$1.97	\$4.38	122%
<b>Movie Ticket</b>	Average Ticket Price	\$4.14	\$8.43	104%
<b>Bread</b>	Per Pound of White Bread	\$0.75	\$1.48	98%
<b>Income</b>	National Median Household	\$31,241	\$56,516	81%
<b>Stamp</b>	One First-Class Stamp	\$0.29	\$0.49	69%
<b>Car</b>	Average New Car	\$16,871	\$25,487	51%
<b>Federal Gas Tax</b>	Per Gallon	\$0.18	\$0.18	0%

Source: Bureau of Labor Statistics, Center for Medicare and Medicaid Services, College Board, Federal Reserve Bank of St. Louis, Oak Ridge National Laboratory, Census Bureau, Energy Information Agency, Postal Service.

Every State is required to have a Statewide transportation improvement program which identifies funded priorities for the next 4 years. In order to do this, States must make assumptions about what might happen to Federal funding when programs expire on September 30, 2021. Any shortfall or delay in Federal funding will lead to serious cash flow problems for States and local governments. A lack of stable, predictable funding from the HTF makes it nearly impossible for State DOTs to effectively plan—and this is especially true for large projects that need a reliable flow of funding over multiple years. Projects that State DOTs undertake connect people, enhance the quality of life for our citizens, and just as important, stimulate economic growth in each community where they are built.

States have answered the call to action for increasing transportation investments, with more than two-thirds of all States having successfully enacted transportation revenue packages over the past decade—including in the Granite State.

In 2014 the New Hampshire House and Senate approved Senate Bill 367, a 4.2 cents per gallon increase in the State gas tax, which is known as the road toll in New Hampshire. The bill was structured so that the additional revenue could be used across the roadway network. Twelve percent of the revenue collected is returned to cities and towns, a portion is also committed to municipally owned bridges, but the majority of the funding was pledged to the reconstruction of Interstate 93 from the border with Massachusetts to Manchester, the largest city in the State. The intent being to complete the final phases of this \$800 million project without reducing the investments being made in other parts of the State.

It should be noted that Federal transportation funding does not displace or discourage State and local investment. In fact, as evidenced by significant transportation infrastructure investment needs, further strengthening and reaffirmation of the federally assisted, State-implemented foundation of the national program is even more critical now than in the past.

In order to provide additional HTF receipts to maintain or increase current Federal highway and transit investment levels, there is no shortage of technically feasible tax and user fee options that Congress could consider. Potential revenue solutions for the HTF fall into three main categories: raising the rate of taxation or fee rates of existing Federal revenue streams into the HTF—examples include motor fuel taxes on gasoline and diesel (including indexing), user fees on heavy vehicles, and sales taxes on trucks, trailers, and truck tires; identifying and creating new Federal revenue sources for the HTF—examples include a mileage-based user fee, per-barrel oil fee, and freight user fee; and redirecting current revenues (and possibly increasing the rates) from other Federal sources into the HTF—examples include Customs duties, income taxes, and other revenues from the general fund.

The matrix below illustrates the breadth of potential HTF revenue mechanisms, including a column that shows an illustrative rate or percentage increase and the associated revenue yield estimated.

**Exhibit 2: Matrix of Illustrative Surface Transportation Revenue Options**

Existing highway trust fund Funding Mechanisms	Illustrative Rate or Percentage Increase	Definition of Mechanism/Increase	\$ in Billions	
			Assumed 2018 Yield <sup>1</sup>	Total Forecast Yield 2019-2023
<b>Existing HTF Funding Mechanisms</b>				
<b>Diesel Excise Tax</b>	20.0¢	¢/gal increase in current rate	\$8.8	\$42.2
<b>Gasoline Excise Tax</b>	15.0¢	¢/gal increase in current rate	\$21.8	\$102.1
<b>Motor Fuel Tax Indexing of Current Rate to CPI (Diesel)</b>		¢/gal excise tax		\$3.7
<b>Motor Fuel Tax Indexing of Current Rate to CPI (Gas)</b>		¢/gal excise tax		\$8.8
<b>Truck and Trailer Sales Tax</b>	20.0%	increase in current revenues, structure not defined	\$0.6	\$4.2
<b>Truck Tire Tax</b>	20.0%	increase in current revenues, structure not defined	\$0.1	\$0.5
<b>Heavy Vehicle Use Tax</b>	20.0%	increase in current revenues, structure not defined	\$0.2	\$1.2
<b>Other Existing Taxes</b>				
<b>Minerals Related Receipts</b>	25.0%	increase in/reallocation of current revenues, structure not defined	\$0.6	\$3.4
<b>Harbor Maintenance Tax</b>	25.0%	increase in/reallocation of current revenues, structure not defined	\$0.4	\$1.9
<b>Customs Revenues</b>	5.0%	increase in/reallocation of current revenues, structure not defined	\$1.9	\$10.3
<b>Income Tax—Personal</b>	0.5%	increase in/reallocation of current revenues, structure not defined	\$5.3	\$28.4
<b>Income Tax—Business</b>	1.0%	increase in/reallocation of current revenues, structure not defined	\$1.7	\$8.9

Exhibit 2: Matrix of Illustrative Surface Transportation Revenue Options—Continued

Existing highway trust fund Funding Mechanisms	Illustrative Rate or Percentage Increase	Definition of Mechanism/Increase	\$ in Billions	
			Assumed 2018 Yield <sup>1</sup>	Total Forecast Yield 2019–2023
<b>License and Registration Fees</b>				
<b>Drivers License Surcharge</b>	\$5.00	dollar assessed annually	\$1.1	\$6.1
<b>Registration Fee (Electric Light Duty Vehicles)</b>	\$100.00	dollar assessed annually	\$0.0	\$0.2
<b>Registration Fee (Hybrid Light Duty Vehicles)</b>	\$50.00	dollar assessed annually	\$0.2	\$1.3
<b>Registration Fee (Light Duty Vehicles)</b>	\$5.00	dollar assessed annually	\$1.3	\$6.8
<b>Registration Fee (Trucks)</b>	\$100.00	dollar assessed annually	\$1.2	\$6.3
<b>Registration Fee (All Vehicles)</b>	\$5.00	dollar assessed annually	\$1.3	\$7.1
<b>Weight and Distance Based Fees</b>				
<b>Freight Charge—Ton (Truck Only)</b>	10.0¢	¢/ton of domestic shipments	\$1.1	\$5.8
<b>Freight Charge—Ton (All Modes)</b>	10.0¢	¢/ton of domestic shipments	\$1.3	\$7.1
<b>Freight Charge—Ton-Mile (Truck Only)</b>	0.5¢	¢/ton-mile of domestic shipments	\$10.1	\$54.2
<b>Freight Charge—Ton-Mile (All Modes)</b>	0.5¢	¢/ton-mile of domestic shipments	\$21.6	\$115.9
<b>Transit Passenger Miles Traveled Fee</b>	1.0¢	¢/passenger mile traveled on all transit modes	\$0.6	\$3.2
<b>Vehicle Miles Traveled Fee (Light Duty Vehicles)</b>	1.0¢	¢/LDV vehicle mile traveled on all roads	\$29.1	\$155.7
<b>Vehicle Miles Traveled Fee (Trucks)</b>	1.0¢	¢/truck vehicle mile traveled on all roads	\$2.9	\$15.7
<b>Vehicle Miles Traveled Fee (All Vehicles)</b>	1.0¢	¢/vehicle mile traveled on all roads	\$32.0	\$171.5

## Exhibit 2: Matrix of Illustrative Surface Transportation Revenue Options—Continued

Existing highway trust fund Funding Mechanisms	Illustrative Rate or Percentage Increase	Definition of Mechanism/Increase	\$ in Billions	
			Assumed 2018 Yield <sup>1</sup>	Total Forecast Yield 2019–2023
<b>Sales Taxes on Transportation Related Economic Activity</b>				
<b>Freight Bill—Truck Only</b>	0.5%	percent of gross freight revenues (primary shipments only)	\$3.8	\$20.2
<b>Freight Bill—All Modes</b>	0.5%	percent of gross freight revenues (primary shipments only)	\$4.6	\$24.8
<b>Sales Tax on New Light Duty Vehicles</b>	1.0%	percent of sales	\$2.8	\$14.9
<b>Sales Tax on New and Light Duty Vehicles</b>	1.0%	percent of sales	\$4.2	\$22.4
<b>Sales Tax on Auto-related Parts and Services</b>	1.0%	percent of sales	\$2.7	\$14.4
<b>Sales Tax on Diesel</b>	2.0%	percent of sales (excluding excise taxes)	\$1.5	\$7.9
<b>Sales Tax on Gas</b>	2.0%	percent of sales (excluding excise taxes)	\$5.2	\$28.0
<b>Tire Tax (Light Duty Vehicles)</b>	1.0%	of sales of LDV tires	\$0.3	\$1.4
<b>Sales Tax on Bicycles</b>	1.0%	percent of sales	\$0.1	\$0.3
<b>Other Excise Taxes</b>				
<b>Container Tax</b>	\$15.00	dollar per TEU	\$0.7	\$4.0
<b>Imported Oil Tax</b>	\$2.50	dollar/barrel	\$4.5	\$23.9

<sup>1</sup> Assumed yield in 2018 or the latest year data is available.

We fully recognize the ongoing funding challenge is not merely technical. To that end, after much deliberation, our board of directors in May 2019 coalesced around four specific revenue mechanisms with substantial estimated yield that could address the HTF shortfall:

- Motor fuel tax increase and indexing.
- Freight-based user fee.
- Per barrel oil fee.
- Mileage-based user fee (MBUF) or vehicle-miles-traveled (VMT) fee.

Specifically on the MBUF/VMT, this committee and others in Congress will play a critical role in deciding how best or if to proceed at the Federal level in implementing this mechanism to meet long-term needs. Given the growing interest in this topic in Congress, let me offer some insights.

The FAST Act established the Surface Transportation System Funding Alternatives (STSFA) program to provide grants to States or groups of States to dem-

onstrate user-based alternative revenue mechanism. Since 2016, the STSFA program has provided \$73.7 million to 37 projects in States across the Nation funding projects that test the design, implementation, and acceptance of user-based systems, such as a vehicle mileage-based user fee.

And just last week, AASHTO's board of directors that I chair adopted a policy resolution on development of a national framework for MBUF implementation. In it, we call for the following:

- The national MBUF pilot program should focus on the development of protocols such that the public may give consideration to mileage-based user fees as a potential replacement of motor fuel taxes;
- A national mileage-based user fee pilot program should focus on the development of national policies and standards related to data collection, interoperability, and administrative structure and cost;
- A national mileage-based user fee program should take into consideration both tax and social equity principles so it is no more burdensome than the motor fuels tax program currently in place;
- A national education campaign to inform public understanding and consideration of vehicle mileage-based user fees as an equitable way to pay for highways is an essential part of a national effort; and
- A national mileage-based user fee pilot program must build on the leadership and expertise of State departments of transportation.

#### FINANCING MECHANISMS CAN SUPPORT, BUT NOT REPLACE DIRECT FEDERAL FUNDING

The State DOTs continue to support a role for Federal financing tools given their ability to leverage scarce dollars that allow needed projects to benefit communities sooner. I want to recognize the work of you, Mr. Chairman, and others on this committee to develop and pursue additional financing tools to help meet transportation needs.

Financing tools can play an important and specific role—and AASHTO has supported many such financing options in the past especially the Build America Bonds from 2009 that States very much appreciated. AASHTO's members appreciate the ability to access capital markets and many States already rely on various forms of financing ranging from traditional tax-exempt bonds, tax-credit bonds, State infrastructure banks, and private equity, among other financing options.

When State DOTs are advancing larger-scale projects, we carefully examine which funding and financing mechanisms will be most advantageous, given the type of the work and the status of other projects in our construction program. We strive to find the most cost effective way to advance large scale projects, without limiting our capacity to continue making investments statewide. As an example, while the 2014 State gas tax increase was intended to fund the final phases of the reconstruction of Interstate 93 from Salem to Manchester, NHDOT also pursued a Transportation Infrastructure Finance Innovation Act (TIFIA) loan, backed by the State gas tax increase. The goal was to stretch the value of the new revenue, with the TIFIA loan structured so that New Hampshire is paying interest only for the first 10 years of the 20-year loan, allowing us to pledge the additional new revenue collected to rural paving and bridge work. The result was the completion of a regionally significant project, savings of over \$20 million in financing, as well as improved pavement and bridge condition across New Hampshire, due to the ability to pave 1,400 miles of roadway and replace 23 structurally deficient bridges during the interest only period of the loan.

With all this said, however, AASHTO strongly believes that Federal surface transportation funding must continue to be focused on direct formula-based apportionments from the highway trust fund to States and transit agencies—which in turn relies on user fee and tax revenues deposited into the HTF. And the HTF can only be fixed with real revenue solutions, and not be substituted by financing tools such as the Transportation Infrastructure Finance and Innovation Act (TIFIA) program, infrastructure banks, or any program that provides direct loans or loan guarantees to support transportation projects. These loans require repayment from an identified revenue stream—*i.e.*, a funding source.

While innovative transportation finance has evolved significantly over the last 20 years, the simple fact remains that the use of financing tools that leverage existing revenue streams are typically not viable for the vast spectrum of publicly valuable transportation projects. To this day, most transportation projects simply cannot generate a sufficient revenue stream through tolls, fares, or other user fees to service



debt or provide return on investment to private equity holders. According to the CBO, for example, P3s have accounted for only one to three percent of spending for highway, transit, and water infrastructure since 1990.

THE TANGIBLE ECONOMIC BENEFITS OF INVESTING IN HIGHWAY,  
TRANSIT, AND OTHER TRANSPORTATION INFRASTRUCTURE

Fortunately, infrastructure investment is again one of the top national policy agenda items. This year, both Congress and the Biden administration are discussing potential infrastructure investment legislation. An infrastructure package, coupled with a robustly funded surface transportation bill, provides a unique window of opportunity to make much-needed improvements to this Nation's transportation system.

Achieving both of these goals—infrastructure investment and a robustly funded surface transportation bill—demands bold action to invest in our transportation systems at the appropriate level to guarantee the success of our Nation's future as we recover from the impacts of the COVID-19 pandemic. This action has the clear support of the American public and is one of the few areas of possible bipartisan agreement.

CONCLUSION

The current trajectory of the HTF—the backbone of Federal surface transportation program—is simply unsustainable, as it will have insufficient resources to meet current Federal investment levels beyond FY 2021.

Congress can take the action now to address the projected annual shortfalls by boosting much-needed revenues. Whichever revenue tools are utilized, AASHTO looks forward to assisting you and the rest of your Senate colleagues in finding and implementing a viable set of revenue solutions that will renew our national heritage of investment in our country and our future through transportation.

Thank you for the opportunity to provide the perspective of the Nation's State DOTs.

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QUESTIONS SUBMITTED FOR THE RECORD TO VICTORIA F. SHEEHAN

QUESTIONS SUBMITTED BY HON. ROB PORTMAN

*Question.* According to the Federal Highway Administration, 36 States have passed public-private partnership-enabling legislation, yet the use of this financing tool is still quite small. As Commissioner Sheehan noted in opening testimony, CBO states that P3s have accounted for only 1–3 percent of spending for highway, transit, and water infrastructure since 1990.

How can we on the Federal level better encourage the use of P3s?

*Answer.* Public-private partnerships (P3s) can play a role in helping to finance infrastructure investments. State DOTs have become more sophisticated when it comes to evaluating whether or not a P3 makes sense for a particular project.

One of the key challenges to the utilization of P3s is the ability to identify a project that can generate the revenue needed to “pay back” the private-sector investment. This can be particularly challenging in rural areas.

Financing tools such as P3s are important options for State DOTs to consider—but they do not replace the need for actual revenue or funding.

*Question.* From 2007–2016, the average annual financing for highway infrastructure provided by State infrastructure banks amounted to \$200 million, or about 1 percent of new financing by State and local governments.

Can you speak to how we can address the underutilization of State infrastructure banks? What makes this form of financing unpalatable for State and local infrastructure projects?

*Answer.* Because State infrastructure banks (SIB) provide loans or financing for particular projects, many of the same challenges that exist to secure private-sector investment also exist for projects financed through a SIB.

Given all of the transportation investment needs that States currently face, requiring a State to use its regular apportionments to capitalize the SIBs may prove

to be an insurmountable obstacle. Additionally not all State owned assets are eligible for Federal funding, which means that regular apportionment cannot always be leveraged. If additional Federal funds were provided that specifically encouraged States to capitalize SIBs there would be an incentive to increase utilization.

*Question.* I understand that States weigh the financing options for major projects through a tool known as a Value for Money analysis in which the private financing option for an infrastructure project is compared against a public financing option. States are not currently required to conduct these analysis to obtain Federal funding for projects or for those projects included on their State transportation improvement plans.

If we were to require a State to conduct a Value for Money analysis for projects of a certain size, what sort of size, scope, or type of project makes the most sense to conduct this sort of analysis on?

*Answer.* Project sponsors use the Value for Money (VfM) analysis process on a case-by-case basis to compare the aggregate benefits and costs of a P3 procurement against those of a traditional project delivery model. While VfM analysis can aid in decision-making, it is just one of several factors to consider in determining how to proceed with a procurement. AASHTO would not support a mandate for this type of analysis for potential P3 projects, but rather efforts to incentivize the use of this type of analysis. The process of assessing the public-sector and private-sector costs of a project demands extensive time and resources.

*Question.* In a comparison of federally supported and solely State-funded transportation projects, I often hear that the Federal requirements and other regulatory hurdles present additional costs and can make federally supported projects more costly for States.

Is there a particular cost increase, on average, that New Hampshire and other AASHTO experience when utilizing Federal funds to support a project in comparison to State-funded projects?

*Answer.* There is limited research on the cost and benefit of Federal requirements, with the most authoritative study being “Federal Requirements for Highways May Influence Funding Decisions and Create Challenges, but Benefits and Costs Are Not Tracked” by the Government Accountability Office in 2008 (<https://www.gao.gov/assets/gao-09-36.pdf>).

This report does say, “According to transportation officials and contractors, administrative tasks associated with the Federal requirements pose challenges. For example, analyzing impacts and demonstrating compliance with NEPA requires extensive paperwork and documentation. State officials also said that coordinating with multiple government agencies on environmental reviews is challenging, in part because these agencies may have competing interests. Furthermore, according to State DOTs, some provisions of the Federal requirements may be outdated.”

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PREPARED STATEMENT OF HON. RON WYDEN,  
A U.S. SENATOR FROM OREGON

These days you'd have trouble getting members of Congress to agree on the proper way to butter toast, but just about everybody agrees on upgrading America's infrastructure. The sorry state of our infrastructure is a danger to individuals. For example, you cannot cross the Mississippi River on a bridge that's cracked in half. It's also a recipe for national decline if the U.S. continues to fall behind China and other countries on broadband, roads, highways, ports, rail networks, airports, housing, and other areas. The tougher question on infrastructure is how to go about paying for it.

In my judgment, there's an obvious answer. It's long past time for mega-corporations to pay a fair share for building and repairing roads and bridges. They drive trucks across America's roads and highways. They send products to market through the airports and waterways. They rely on our power grids and communication systems. They ought to pitch in for the infrastructure that makes America an economic superpower.

The hard evidence, however, shows that these mega-corporations have never contributed less to Federal revenues in modern American history than they do now. Data from the independent Congressional Budget Office show that in the wake of

the Trump tax law, corporate income tax revenue is down nearly 40 percent from the 21st-century average. Many of the largest corporations pay nothing—zero.

New reports out just this week say that corporations flush with cash are also gearing up for new rounds of stock buybacks that overwhelmingly benefit wealthy shareholders. It's not any kind of cash crunch that's kept big corporations from pitching in. Asking the largest of the large corporations to pitch in a fair share will not sacrifice America's competitiveness. Competitiveness does not mean the biggest corporations pay zero tax. Paying for infrastructure and creating high-wage, high-skill jobs are not mutually exclusive.

Now, there's lots of talk about how it's got to be user fees that pay for infrastructure, but that's not a step toward fairness. The suggestion is, middle-class workers are going to pay what mega-corporations will not.

Middle-class budgets are already hard-pressed, and if you don't think Americans keep track of the cost of driving, you haven't watched the TV news much in the last week.

The fact is, the infrastructure tab has been growing for decades due to Congress's negligence and corporations failing to pitch in fairly. I'm not going to tell a rancher in eastern Oregon or a home health aide on the coast that they've got to make up the shortfall. Working people driving long distances are willing to pay their fair share—they've been doing so every time they pull up to the pump. They aren't going to support immunizing mega-corporations from paying anything at all.

Prior to 2017, there was also bipartisan interest in bringing back cash trapped overseas as the best way to fund a major infrastructure bill. Study after study showed that corporations had trillions of dollars parked around the world. Senators even had the repatriation bills ready to go. In 2017, however, Republicans went a different direction and plowed that cash into even bigger corporate tax goodies as part of the Trump tax law. That was a major lost opportunity, and the infrastructure tab has only grown in the years since then.

Today the Congress also ought to be looking at smart financing tools to help draw private dollars off the sidelines and into infrastructure. It worked a decade ago with Build America Bonds. Initially, projections said that only a few billion dollars' worth of those bonds would sell. The number wound up being more than \$180 billion. So that's clearly an approach the Congress must return to as it works on infrastructure.

I want to thank our witness panel for joining the committee today. The outcome of this debate has the potential to change the course of our economy for generations to come. I'm more optimistic today than I have been in years that the Congress will be able to go big on infrastructure. I'm looking forward to discussing all these issues today.

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## COMMUNICATIONS

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U.S. House of Representatives  
H-232, The Capitol  
Washington, DC 20515

The Honorable Kevin McCarthy  
Republican Leader  
U.S. House of Representatives  
Room H-204, The Capitol  
Washington, DC 20515

The Honorable Charles Schumer  
Majority Leader  
U.S. Senate  
S-221, The Capitol  
Washington, DC 20510

The Honorable Mitch McConnell  
Republican Leader  
U.S. Senate  
S-230, The Capitol  
Washington, DC 20510

Dear Mr. President, Madam Speaker, Majority Leader Schumer, Leader McCarthy, and Leader McConnell:

It has been a year since the country was gripped by the coronavirus pandemic. Far too many Americans have lost loved ones and the fragility of the economy has caused financial stress for those facing uncertainty about the future. Vaccinations have provided hope for the end of COVID-19, but the fact remains that the pandemic left an economic crisis in its wake. We share your concern for the nation's economy and the effect it continues to have on American workers and families in our communities.

In the midst of the country's racial, health, and economic turmoil in 2020, life insurers are meeting the moment with ACLI's Economic Empowerment and Racial Equity Initiative. With special focus on our role in helping families financially, and the economy overall, we came together in our shared commitment to expand access to financial security and education, target investment in underserved communities, and advance diversity and inclusion in the financial services industry.

One important policy that addresses economic empowerment and racial equity is the nation's infrastructure. For the last few years, leaders on both sides of the aisle have focused on the need to improve the nation's infrastructure and investment in our local communities. As investors who will play a critical role in the recovery ahead and as financial security providers to families, we believe a bipartisan approach to an infrastructure policy will be an important step in the nation's economic recovery.

In the ongoing important work on the country's infrastructure needs, we support policy initiatives that focus on broad economic growth, as well as investments at the local level, including underserved communities, through direct payment bonds. We also support the effort to address affordable housing needs through the Low-Income Housing Tax Credit (LIHTC) program.

Through the industry's \$6.9 trillion investment into the nation's economy, we have long played an important role to meet the infrastructure needs in states and local communities. For example, our industry invested more than one-third of the 2009 Build America Bonds which allowed state and local governments to finance more than \$150 billion of infrastructure investment. Life insurers also continue to prioritize affordable housing with more than \$5 billion in 2019 in the LIHTC program. Investments like this help keep our long-term guaranteed promises to our consumers and will continue to help with the nation's economic recovery.

We also stand ready to partner with you to address our nation's caregiving needs including paid family leave, a problem which has been exacerbated by the pandemic. As providers of paid leave solutions for workers, providing over 47 percent of policies in the market, we believe there is an opportunity to build upon the current Family and Medical Leave Act (FMLA) standards to include a paid component, drawing from the experience and expertise we have built over decades of providing paid leave benefits to America's workers.

Thank you for your consideration and for your continued service to our nation. There are many difficult choices and opportunities in this unique moment in our history. We ask you to keep in mind the vital role that life insurers play through the industry's commitment to provide financial security to Americans of all walks of life, through the investments in our local communities, in our economy and our shared commitment to our country. We welcome the opportunity to partner with you as we meet the moment together for our country.

Sincerely,

Susan K. Neely  
President and CEO

The American Council of Life Insurers (ACLI) appreciates the opportunity to submit this statement for the record on "Funding and Financing Options to Bolster American Infrastructure." We thank Chairman Ron Wyden (D-OR) and Ranking Member Mike Crapo (R-ID) for holding this important hearing to help address our country's infrastructure needs.

The American Council of Life Insurers (ACLI) is the leading trade association driving public policy and advocacy on behalf of the life insurance industry. 90 million American families rely on the life insurance industry for financial protection and retirement security. ACLI's member companies are dedicated to protecting consumers' financial well-being through life insurance, annuities, retirement plans, long-term care insurance, disability income insurance, reinsurance, and dental, vision and other supplemental benefits. ACLI's 280 member companies represent 95 percent of industry assets in the United States.

ACLI fully supports the critical work that Congress is undertaking on the country's infrastructure needs (attached is ACLI's March 23rd letter to the Administration and congressional leadership). As investors who will play an important role in the recovery ahead, we are keenly interested in broad economic growth that bolsters needed investments at the local level, with an emphasis on assisting underserved communities.

*Life Insurance Companies' Investments in Infrastructure*

Life insurers are a bedrock of financial and retirement security to millions of Americans, paying out 2.1 billion dollars every day to American families through our products. We provide peace of mind for people who lose their spouses and we help people at all stages build secure financial futures.

Life insurers make long-term promises and our liabilities stretch over decades. Given this long-term perspective and commitment, we look for stable, lengthy investments in projects whose duration and return support the guarantees that are the hallmark of the financial security and protection we provide.

In addition to investing prudently, stringent state-based insurance regulation directs us to high-quality, long-term investments. Infrastructure investments are understandably an excellent match for the character of our investment needs. They deliver predictable returns over decades.

Focusing on long-term value, and acting as patient investors, life insurers serve policy holders and strengthen the nation and its economy. In fact, the \$6.9 trillion invested by our industry in the U.S. economy makes us one of the largest sources of investment capital in the nation.

We back up our guarantees, as required by state insurance regulators, through “asset-liability matching,” meaning the investment duration and returns need to be closely matched with the obligations we take on, while we provide stability and liquidity in the U.S. marketplace. It is a “win-win” situation.

Through the industry’s \$6.9 trillion investment into the nation’s economy to date, we have long played an important role in helping to meet the infrastructure priorities in states and local communities. In fact, life insurers invested in more than one-third of total Build America Bonds issued in 2009 and 2010 to support infrastructure, totaling nearly \$60 billion by year-end 2010. Our industry also continues to prioritize affordable housing. In 2019, we held more than \$5 billion in investments benefiting from the LIHTC program. Investments like this help us keep our long-term guaranteed promises to our consumers and will continue to help with ensuring the nation’s economic recovery.

#### *Taxable Direct Payment Infrastructure Bond Programs*

Based on this contribution to America’s strength and well-being, we encourage Congress in its work on infrastructure to consider our industry’s partnership in investing in infrastructure. Specifically, Congress should prioritize taxable financing solutions to maximize limited federal resources and reduce the debt burden on state and local governments by authorizing a permanent taxable direct payment infrastructure bond program, with a special focus on underserved communities.

We were pleased to support the American Infrastructure Bonds Act, a bipartisan measure recently introduced by Senators Michael Bennet and Roger Wicker. The proposed legislation would create a taxable direct bond program that will allow state and local governments to issue taxable bonds for any public purpose expenditure that is eligible to be financed with tax-exempt bonds, thereby supporting the unique needs of all communities across the country—including underserved communities, which aligns with ACLI’s Board-led economic empowerment and racial equity initiative (EERE).

#### *Conclusion*

The U.S. infrastructure challenge is real and meeting it will be costly. Current levels of U.S. investment are falling short. Innovative approaches to providing funding is essential to infrastructure improvement that will help to fuel economic growth. A plan that complements public dollars with taxable direct payment bonds would help attract greater capital from long-term investors to narrow America’s infrastructure investment gap. This, in turn, would create investment opportunity that would allow us to continue to do what we do best—provide financial products that bring peace of mind to Americans and their families.

We believe that the nation’s infrastructure is key to advancing economic empowerment and racial equity. Policymakers from both parties have discussed the importance of improving our infrastructure while investing in local communities, creating jobs and ensuring rewards are shared fairly.

Helping people care for their loved ones—regardless of their race, gender, or economic status—is our core mission. That mission has never been more important. We welcome the opportunity to partner with lawmakers and help our nation find a better, more equitable path to prosperity for all Americans in the 21st century. We stand ready to work together with Congress as an infrastructure proposal moves forward.

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AMERICAN PUBLIC GAS ASSOCIATION (APGA)  
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May 27, 2021

The Honorable Ron Wyden  
Chairman  
U.S. Senate  
Committee on Finance  
219 Dirksen Senate Office Building  
Washington, DC 20510

The Honorable Mike Crapo  
Ranking Member  
U.S. Senate  
Committee on Finance  
219 Dirksen Senate Office Building  
Washington, DC 20510

Re: May 18, 2021 Hearing on “Funding and Financing Options to Bolster American Infrastructure”

Dear Chairman Wyden and Ranking Member Crapo,

APGA is the trade association for approximately 1,000 communities across the U.S. that own and operate their retail natural gas distribution entities. They include municipal gas distribution systems, public utility districts, county districts, and other public agencies, all locally accountable to the citizens they serve. Public gas systems focus on providing safe, clean, reliable, and affordable energy to their customers and support their communities by delivering fuel to be used for cooking, clothes drying, and space and water heating, as well as for various commercial and industrial applications.

APGA appreciates the Committee holding this important discussion regarding how to pay for much needed investments in America's infrastructure. Public natural gas utilities are good stewards of the environment and their communities and take seriously their role in providing safe, clean, reliable, and affordable energy. That requires making important investments in keeping their pipeline infrastructure modern and safe, which is why we would like to take this opportunity to express our support for Senator Wicker and Senator Bennet's legislation that would create a new class of American Infrastructure Bonds.

Infrastructure projects have, in many cases, been delayed or canceled as state and local governments grapple with the economic effects of the COVID-19 pandemic. This has been especially problematic in rural areas, where many of our members are located, which are especially likely to have aging infrastructure that requires more resources to maintain.

Because our members are municipally owned, they cannot turn to shareholders for an infusion of capital when their infrastructure needs to be upgraded. That is why we are strong supporters of Senator Wicker and Senator Bennet's American Infrastructure Bonds Act that would create a new class of taxable, direct-pay municipal bonds. As communities continue to recover from the economic impact of the pandemic, these bonds would provide an additional financial tool to power investment in local infrastructure, including public natural gas systems.

The bill would allow states and localities to issue debt via taxable bonds in order to fund new projects, which could include things like expanding or replacing utility infrastructure. Because the Treasury Department would pay a certain percentage of the bond's interest, this type of bond issuance has the advantage of keeping costs low for the issuing state or local government. The other advantage of direct-pay bonds is a larger pool of potential capital. The market for taxable bonds is much larger than that for tax-exempt bonds, and it allows state and local governments to attract capital from a wider range of investors, such as large pension funds and international investors.

As the Chairman referenced in his opening statement, this type of financing tool has a proven record of success. Senators Wicker and Bennet have modeled their legislation on the popular, but now expired, Build America Bonds (BAB) program. That program far exceeded expectations, bringing in more than \$180 billion of investment to help aid in America's recovery from the last recession. This legislation represents an excellent opportunity to learn from and build on our past success with BAB.

A new funding stream like this would allow our members to do things like expand their infrastructure and bring safe, clean, reliable, and affordable energy to currently underserved communities. It would also provide funding to help finance replacing older pipeline with newer materials that could help reduce leaks and improve safety. The bottom line is, if passed, the bill would create a funding tool that would allow more investment in infrastructure without passing on the bill to American taxpayers.

APGA supports the Committee's work to ensure America can make much needed investments in modernizing and improving the country's aging infrastructure. State and local governments can and should be invaluable partners as the Committee considers how to best make those investments. They are best positioned to know what infrastructure improvements are most critical at a local level. Allowing them to have access to the taxable bond market would empower them to attract the capital they need to make infrastructure investments for the benefit of their communities.

APGA members are proud to provide safe, clean, reliable, and affordable energy to their communities. Advancing this legislation would allow the state and local governments our members are a part of to continue to invest in the infrastructure that makes that possible. We thank you again for fostering this important conversation



and for the opportunity to submit this input. APGA stands ready to work together in this effort.

Dave Schryver  
President and CEO

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### **ASA Priorities for Infrastructure Reform**

The ASA is a trade association that represents the retail and institutional capital markets interests of regional financial services firms who provide Main Street businesses with access to capital and advise hardworking Americans how to create and preserve wealth. The ASA's mission is to promote trust and confidence among investors, facilitate capital formation, and support efficient and competitively balanced capital markets. The ASA has a geographically diverse membership base that spans the Heartland, Southwest, Southeast, Atlantic, and Pacific Northwest regions of the United States. **Municipal bonds, issued by state and local governments, provide funding for hospitals, schools, bridges, highways, affordable housing, water and energy facilities all across America. Municipal bonds provide jobs and economic opportunities in local communities and enable upgrades to failing facilities and investment in new, clean energy alternatives. Support for municipal bonds is especially important as state and local governments are facing unprecedented challenges due to the COVID-19 pandemic.**

#### **Maintain the municipal tax exemption.**

Generally, the interest paid on municipal bonds is exempt from federal taxes and sometimes state and local taxes as well. There is strong economic justification for the tax exemption of municipal bonds as it encourages state and local governments to invest in infrastructure projects that create benefits for their communities. This exemption has been in place for over 100 years.

#### **Allow for infrastructure plans that can be customized at the state/local levels, rather than a nationwide "infrastructure bank."**

While infrastructure banks support long-term investments in infrastructure projects, ASA believes that they take away the opportunity for local and state governments to control their own infrastructure projects. Instead of a federal infrastructure bank, ASA strongly supports allowing local communities to decide how they want to spend money in their own backyards.

#### **Reinstate tax-exempt advance refundings for municipal bonds.**

Tax-exempt advance refunding bonds allowed states and localities to refinance existing debt with the greatest flexibility, resulting in substantial reductions in borrowing costs. Advance refunding refers to the withholding of a new bond issue's proceeds for longer than 90 days before using them to pay off an outstanding bond's obligations. Municipalities typically use advance refunding to lower borrowing costs and to take advantage of lower interest rates. The elimination of tax-exempt advance refundings in the 2017 Tax Cuts and Jobs Act (TCJA) limited the options for state and local governments to refinance debt, and has resulted in higher costs that trickle down to the taxpayers.

#### **Ensure Municipal Bonds Continue to Promote Environmental and Social Objectives.**

Municipal bonds have always promoted sustainable development and the public good by funding environmental and social projects in communities across the country. Important examples of these financings include public health, clean water, affordable housing, food security, renewable energy, and public education, among other things. Municipal bonds provide a gateway to local socially responsible investing for long-term investors. Our members have played a leading role in the financing of these projects and they will continue to support them as America's infrastructure is modernized.

#### **Congress should update the tax code to allow for more bank-qualified bonds.**

Historically, banks were the major purchasers of tax-exempt bonds. Banks' demand for municipal bonds changed in 1986 with the passage of the Tax Reform Act of 1986, which says banks may not deduct the carrying cost of tax-exempt municipal

bonds. For banks, this provision has the effect of eliminating the tax-exempt benefit of municipal bonds unless they are deemed as “bank qualified” bonds. In order to meet the requirements for “bank qualification,” a municipal bond must meet several criteria and the issuer must not expect to issue more than \$10 million of bonds in the calendar year. ASA believes the \$10 million amount should be modernized to reflect the passage of time, as many organizations support a minimum of a \$30 million threshold.

**Expand Private-Activity Bonds (PABs).**

While tax-exempt municipal bonds are geared toward infrastructure projects with a public benefit, PABs are directed at projects for private entities that also serve some public purpose, such as an apartment complex that may allow low-income housing. The 1986 Tax Act imposed a limit on how many private-activity bonds can be issued in a state each year and a number of eligibility restrictions dictate the way public- and private-sector partners can work together. ASA strongly supports expanding eligibility and state allowances for PABs.

**Reinstate the Build America Bonds (BABs) Program (2009–2010).**

Created during the 2009 financial crisis, Build America Bonds (BABs) functioned like municipal bonds, except that BABs were taxable bonds that gave either a 35 percent direct federal subsidy to the borrower or a federal tax credit worth 35 percent of the interest owed to the investor. From 2009–2010, over \$180 billion BABs were issued, and the program was extremely attractive to a wide range of investors. ASA believes a new BABs program, that is not subject to sequestration reductions, would be extremely beneficial for infrastructure investment.

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AMERICAN TRUCK DEALERS  
412 First Street, SE, First Floor  
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Chairman Wyden and Ranking Member Crapo, the American Truck Dealers (ATD), a division of the National Automobile Dealers Association, appreciates the opportunity to submit comments for the record regarding our strong support for repeal of the federal excise tax (FET) on heavy-duty trucks and trailers. ATD represents over 1,700 franchised commercial truck dealerships who employ more than 122,000 people nationwide and leads the Modernize the Truck Fleet coalition.<sup>1</sup>

As Congress considers comprehensive infrastructure legislation, ATD respectfully requests that Congress repeal the 12% FET on new heavy-duty trucks and trailers and replace it with a more consistent revenue source for the highway trust fund (HTF). Repeal of the FET would immediately spur the purchase of newer, safer and cleaner heavy-duty trucks and trailers and help support the 1.3 million jobs related to Class 8 truck and trailer manufacturing and the 7.95 million Americans in trucking-related jobs.<sup>2</sup>

Repealing the FET and replacing it with a user-based revenue source relevant to today’s economy will help protect trucking-related jobs, provide environmental benefits by replacing older trucks with newer cleaner trucks, and speed the modernization of America’s truck fleet.

**FET First Imposed to Pay for World War I**

The FET was first imposed in 1917 to help pay for World War I. Originally 3%, the tax is 12% today,<sup>3</sup> making the FET the highest tax Congress imposes on a percentage basis on any product. This tax routinely adds over \$20,000 to the price of a new heavy-duty truck and is imposed on top of the nearly \$40,000 in recent federal emis-

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<sup>1</sup> The Modernize the Truck Fleet coalition is a broad coalition of trade groups, equipment manufacturers and businesses representing broad sectors of the trucking industry that have come together to repeal the FET. There are six official members of the Modernize the Truck Fleet Coalition: the American Truck Dealers, National Tank Truck Carriers, National Trailer Dealers Association, The Association for the Work Truck Industry, the Truck Renting and Leasing Association, and the Truck and Engine Manufacturers Association.

<sup>2</sup> Economics and Industry Data. American Trucking Associations, <https://www.trucking.org/economics-and-industry-data>.

<sup>3</sup> Since its inception at 3%, the tax has been briefly eliminated, raised twice prior to World War II, increased again and rolled into the highway trust fund in 1956, repealed by the Senate in 1975, and increased to 12% in 1982. That was the last time Congress had any substantive debate or made any changes to this tax. See attached *The History of the Federal Excise Tax on Heavy-Duty Trucks*, American Truck Dealers (January 2019), <https://www.nada.org/WorkArea/DownloadAsset.aspx?id=21474858078>.

sions and fuel-economy regulatory mandates. This tax coupled with recent regulatory costs makes it more difficult for small businesses to afford a new truck.

Congress has not revisited whether the FET is the most effective and efficient way to raise revenue from the commercial transportation sector since 1982. Since that time, the FET has been extended six times, and will expire at the end of September 2022.<sup>4</sup>

#### **Congressional Support Grows to Change the FET Last Year**

When heavy-duty trucks sales plummeted in the second quarter of last year due to the coronavirus pandemic, the trucking industry united behind temporarily repealing the FET, which would have brought immediate relief to the vital trucking industry. Rep. Chris Pappas (D-NH) spearheaded a letter signed by 54 House Democrats to House leaders requesting suspension of the FET through 2021. Included among the signers were six Democratic members of the House Ways and Means Committee. This effort was supported by ATD, the United Auto Workers, the American Trucking Associations, and over 200 other trucking-related organizations. In addition, FET suspension and repeal have received bipartisan support in Congress.<sup>5</sup>

#### **FET Discourages Modernizing America's Truck Fleet**

More than half of the Class 8 trucks on the road are over 10 years old. New trucks have made significant environmental gains due to recent federal emissions and fuel-economy mandates and industry innovation. For example, cleaner fuel and engines utilizing advanced technologies have combined to reduce nitrogen oxide (NO<sub>x</sub>) emissions by 97% and particulate matter (PM) emissions by 98%. To put that in perspective, it would take 60 new trucks to generate the same level of emissions as a single truck manufactured in 1988. Since 2007, new trucks have also achieved significant carbon dioxide reductions and fuel-efficiency improvements, which have saved 296 million barrels of crude oil.<sup>6</sup>

However, the investments in new technologies required to fulfill new environmental and regulatory mandates have added nearly \$40,000 to the price of a new truck, and these regulatory costs are also subject to the FET.<sup>7</sup> As a practical matter, the FET taxes the environmental technologies the federal government has mandated, so its repeal would benefit the environment by ensuring speedier deployment of cleaner and more fuel-efficient trucks.

#### **FET Repeal Would Spur the Sale of New Safer Trucks and Increase Highway Safety**

Roadway safety and crash avoidance are top priorities for the trucking industry. While new commercial trucks and trailers are the safest they have ever been, deployment of new safety equipment can be delayed due to the high cost of a new truck, which includes the 12% FET that Congress levies on new trucks and trailers. New trucks and trailers have several mandated safety features to help the driver maintain control of the vehicle and prevent a collision, such as anti-lock braking systems and electronic stability control. Additionally, new truck buyers can choose from an array of innovative, new safety technologies like adaptive cruise control, automatic emergency braking systems, and other advanced driver assistance systems that help reduce crashes.

The FET deters the selection of additional safety features that could be purchased because the tax is applied to the cost of each safety feature the customer may decide to add to the vehicle at the point of sale. Repealing this 12% tax through 2021 will help spur the sale of new trucks, which offer the latest safety options, such as: automatic emergency braking; adaptive cruise control with braking; lane departure

<sup>4</sup>Pub. L. 114-94.

<sup>5</sup>Last Congress, Reps. Doug LaMalfa (R-CA) and Collin Peterson (D-MN) introduced H.R. 2381, the "Modern, Clean, and Safe Trucks Act of 2019," which would repeal the FET. The bill had 35 bipartisan cosponsors, and a Senate companion FET repeal bill (S. 1839) was introduced by Sen. Cory Gardner (R-CO). Additionally, Sen. Joe Manchin (D-WV) sent a letter on December 21, 2019 to the leadership of the Senate Finance Committee asking that FET repeal be considered as infrastructure funding issues are deliberated in the context of reforming the highway trust fund.

<sup>6</sup>*43 Percent of U.S. Commercial Trucks Now Powered by Newest-Generation Near-Zero Emissions Diesel Technology, Delivering Significant Emissions Reductions and Fuel Savings.* Diesel Technology Forum, October 22, 2019.

<sup>7</sup>The FET is on top of the nearly \$40,000 on average per truck cost of these regulatory mandates, which include since the early 2000s tailpipe emissions rules, greenhouse gas emissions standards and fuel efficiency standards. The aggregate costs of these mandates result in an additional \$4,700 FET, on average.

warning, and lane-keeping assist (with intervention); forward collision mitigation; blind spot warning; traction control; tire pressure monitoring, automatic tire inflation; automatic wipers and headlamps; and side airbags for rollovers.

FET repeal would also help the trucking industry accelerate the purchasing cycle for heavy-duty truck fleets which will result in a faster replacement rate that will improve highway safety. Since more than half of the Class 8 trucks on the road are over 10 years old, many trucks in service today lack the benefits offered by nearly a decade of technological advancements in safety. Congress should encourage the sale of new heavy-duty vehicles, which utilize the significant improvements from earlier generations in safety technology and will help reduce roadway crashes and related injuries and fatalities.

### **The FET Creates Considerable Administrative Burdens and Costs for Small Businesses**

The FET is a difficult tax to administer. Truck dealers, who are responsible for collecting and remitting the tax, incur considerable costs when navigating the complex IRS regulations that apply to this tax. One challenge to administering the FET is that today's heavy-duty truck, unlike a 1917 truck, is highly customizable.

As each modification or customized truck or trailer is made, dealers must determine on a part-by-part basis whether FET applies and manage assessment of the tax for every truck sold. These custom purchase options require careful calculations when determining what is and what is not exempt from FET. For example, one dealer with truck dealerships in Alabama, Florida, and Georgia calculated that 2,820 employee-hours are spent to administer and comply with the FET, along with \$200,000 IT costs annually.

As an excise tax, the FET should be a relatively straightforward levy to collect. However, with customization and a complex and vague set of rules, many truck sales need to be uniquely calculated, and it is often unclear whether certain trucks or their components are subject to FET. The complexity of this excise tax is such that one industry group, the Association for the Work Truck Industry, produces a 165-page guide for their members on how to comply with the FET.<sup>8</sup> FET repeal would eliminate the administrative burden of collecting the FET, eliminate the significant financial risk if the IRS auditor disagrees with the tax liability, and allow small business dealers to hire or retrain employees for more productive pursuits.

### **The FET Revenue Stream into the Highway Trust Fund Is Volatile**

The FET has been the most inconsistent source of revenue to the HTF over the past 20 years. Because FET revenue is dependent on volatile annual truck sales, the tax has contributed to the overall instability of the HTF. In 2008, FET receipts contributed 4.0% of total HTF. In 2017 FET revenue as a percentage of HTF revenue dropped from 11.2% in 2015 to 7.6% and increased to 12.2% in 2019.<sup>9</sup> Revenues for 2020, which are currently not public, are also likely to fluctuate as trucking sales essentially came to a standstill in April and May due to the pandemic.

Because FET revenue, with an average annual revenue of \$3.33 billion from 2005–2019, is dependent on fluctuating annual truck sales, the volatility of this revenue contributes to the instability of the HTF.<sup>10</sup> To establish long-term stability for the HTF, the FET should be replaced with a more consistent revenue source.

Another drawback of the FET is that it is not equitable, as it is not based on road usage. Unlike a fuel or vehicle miles traveled tax, the FET is a flat rate, meaning the purchaser is taxed the same amount whether the vehicle is driven 500 or 50,000 miles. Modernize the Truck Fleet, a large nationwide industry coalition led by ATD, is working to identify viable funding options to replace the FET with an equitable revenue source, with a preference that the amount of the tax is based on actual road usage.

### **Conclusion**

We urge Congress to repeal the 12% FET on heavy-duty trucks and trailers and replace it with a more consistent revenue source for the highway trust fund to protect trucking-related jobs, provide environmental benefits by replacing older trucks with

<sup>8</sup> *Federal Excise Tax Guide for the Work Truck Industry 2011*. The Association for the Work Truck Industry, <https://www.ntea.com/ItemDetail?iProductCode=2266>.

<sup>9</sup> See Attachment: Volatility in FET Revenue as a Percentage of Total HTF Revenue 1957–2019. American Truck Dealers (American Truck Dealers, Washington, DC) March 2021.

<sup>10</sup> See Attachment: *Summary of highway trust fund (HTF) Revenues 2005–2019*. American Truck Dealers (American Truck Dealers, Washington, DC) March 2021.

newer cleaner trucks, and modernize America's truck fleet. Over the past few decades, the trucking industry has made significant strides in green technology and safety that make new heavy-duty trucks cleaner and safer than ever before. With an aging fleet, FET repeal would help speed the replacement of older trucks with new green trucks.

Additionally, heavy-duty trucks and trailers are almost entirely made in North America and these trucks and trailers are designed, tested, and assembled across the U.S. Repeal of the FET would also help protect the 1.3 million American manufacturing, dealership, supplier and heavy-duty trucking and trailer-related jobs nationwide.

ATD stands ready to work with Congress to modernize our nation's truck fleet, and to replace the FET with user-based funding options that will provide long-term solvency for the highway trust fund. Thank you again for the opportunity to submit testimony.

## TIME TO MODERNIZE THE TRUCK FLEET



Is the FET  
the most effective  
and efficient way  
to raise revenue  
for the highway  
trust fund?

The FET is set to expire in 2022, and Congress is expected to consider a transportation infrastructure bill later this year. This bill presents an opportunity for Congress to put cleaner, safer trucks on the road by asking whether a 12 percent excise tax on heavy-duty trucks, which was first levied at the beginning of the last century, is still the most effective and efficient way to raise revenue for America's modern infrastructure needs.

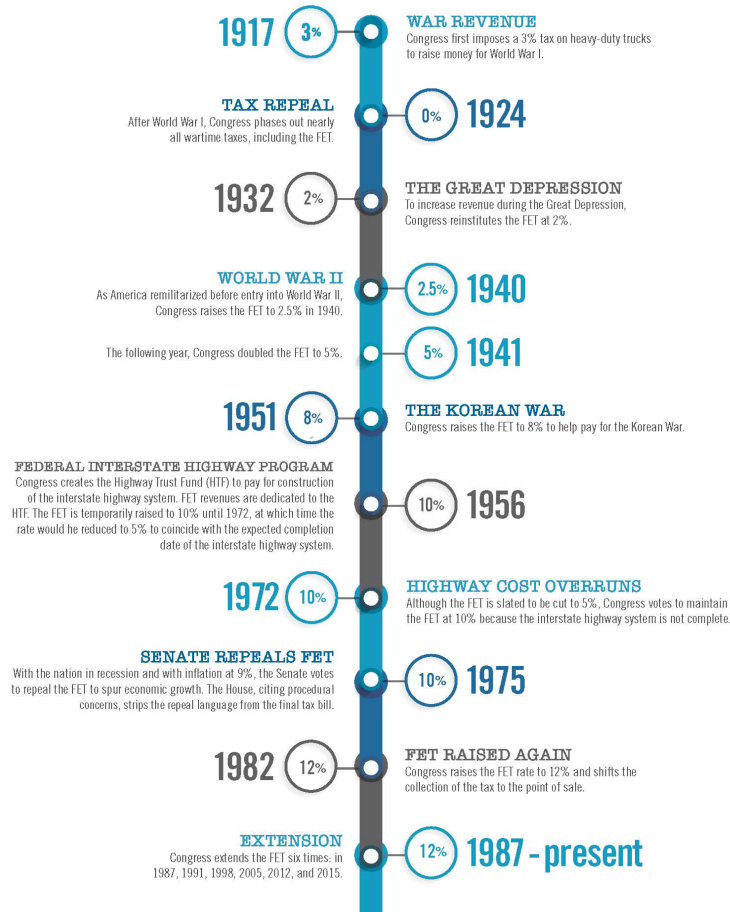


AMERICAN TRUCK DEALERS

NADA Legislative Affairs  
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## History of the Federal Excise Tax (FET) on Heavy-Duty Trucks

In 1917, the federal government began collecting a tax on almost every heavy-duty truck. Over the course of a century, the FET on heavy-duty trucks has been raised and lowered; repealed and reinstated; dedicated and extended. Today, the tax delays the purchase of cleaner, safer and fuel-efficient trucks, and is also complex to administer. Congress has not revisited the tax since 1982 to ascertain whether this 12 percent levy is an effective and efficient means to raise revenue from the transportation sector.



**ATTACHMENT A**  
**Summary of highway trust fund (HTF) Revenues 2005-2019**

HTF Federal Excise Taxes	Tax Amount/Rate	Applicability	Revenue Average (2005-2019)	Average Percentage of HTF Revenue (2005-2019)
<b>Gasoline Excise Tax</b>	18.4 cents per gallon <sup>11</sup>	Most gasoline except for fuel used by rail, or off-road equipment	\$24.75 billion	63.61% <sup>12</sup>
<b>Diesel Excise Tax</b> <sup>13</sup>	24.4 cents per gallon <sup>1</sup>	Most diesel except for fuel used by rail, or off-road equipment	\$9.27 billion	23.84% <sup>2</sup>
<b>Truck and Trailer Excise Tax (FET)</b>	12% of retailer's sale price	New trucks and tractors weighing greater than 33,000 lbs. GVW	\$3.33 billion	8.57%
<b>Truck and Trailer Excise Tax (FET)</b>	12% of retailer's sale price	New trailers weighing greater than 26,000 lbs. GVW	\$3.33 billion	8.57%
<b>Heavy Vehicle Use Tax (HVUT)</b>	\$100 plus \$22 per 1,000 lbs. (in excess of 55,000 lbs.) annually—\$550 maximum	Trucks weighing 55,000 lbs. GVW or greater	\$1.1 billion	2.84%
<b>Tire Excise Tax</b>	9.45 cents per 10 lbs. of tire load (in excess of 3,500 lbs.)	Tires with a capacity over 3,500 lbs.	\$442.09 million	1.14%

GVW = Gross Vehicle Weight

Source: Federal Highway Administration (<https://www.fhwa.dot.gov/policyinformation/statistics.cfm>) using latest available data.

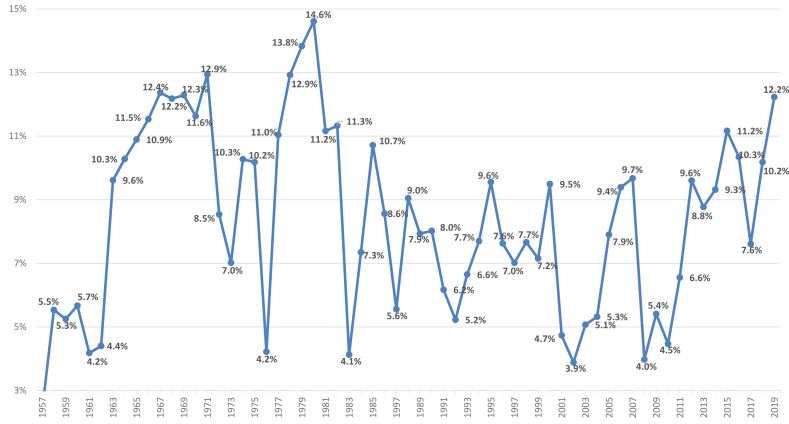
<sup>11</sup> Value represents total fuel excise tax. Of this amount, 2.86 cents per gallon are transferred to the Mass Transit Account.

<sup>12</sup> Percentages and totals derived from money flowing solely to highway account and not to the mass transit account.

<sup>13</sup> On average, \$580 million dollars of diesel tax revenue is refunded annually to aviation users who pay diesel tax. This total reflects this refund difference.

**ATTACHMENT B**

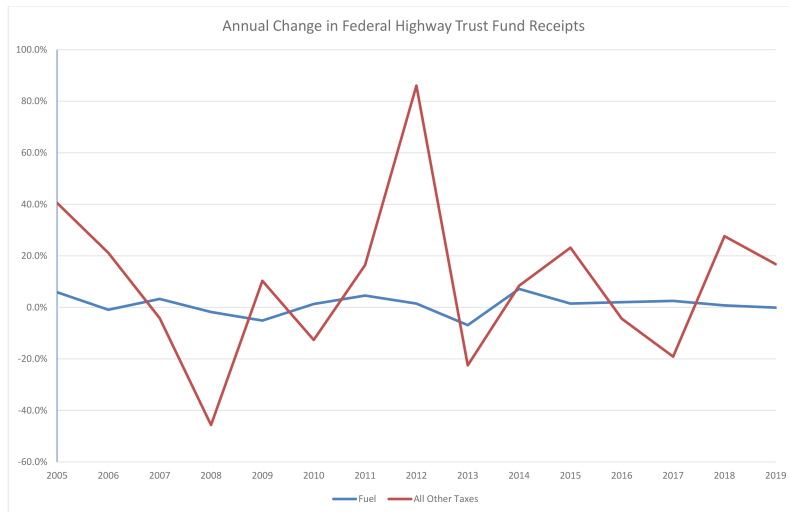
**Volatility in FET Revenue  
As a Percentage of Total HTF Revenue**



3/2/21

**ATTACHMENT C**

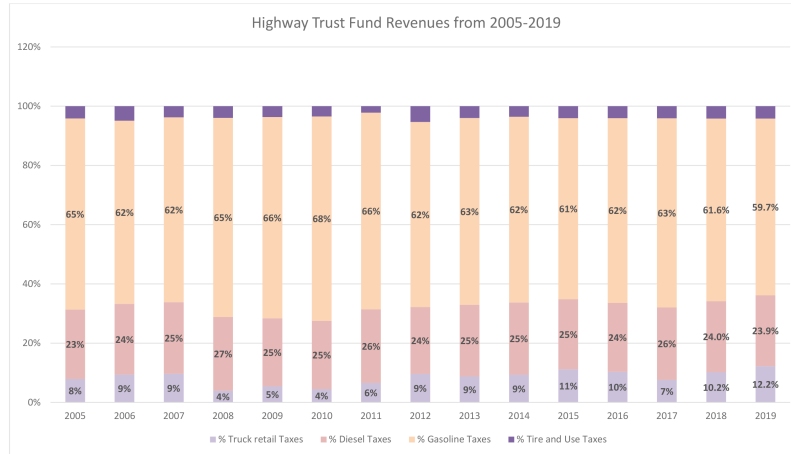
**Annual Change in Federal Highway Trust Fund Receipts**



3/2/21



**ATTACHMENT D**



3/2/21

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**Statement of Michael Bindner**

Chairman Wyden and Ranking Member Crapo, thank you for the opportunity to submit our comments on this topic. We submitted comments to the Ways and Means Committee in 2019, on “Our Nation’s Crumbling Infrastructure” and the House Budget Committee in January 2020 regarding “Why Federal Investments Matter,” as well as in recent comments to the Appropriations, Ways and Means and Finance Committees.

Our recommendations on funding infrastructure with a motor fuel tax are still valid. We could also use a carbon value-added tax to provide receipt visibility for more informed consumer choice. The key to making such taxes adequate, aside from recognizing the inelastic nature of gasoline prices, is to bring back “pork barrel” spending.

We submitted testimony to the Energy and Water Projects Appropriation regarding fusion power and electric vehicles on dedicated roads with computer control. These are attached.

A key part of any infrastructure plan is to encourage household spending, which is helped by government action and results in industrial spending on plant and equipment.

**As we commented to Ways and Means last month regarding Trade Infrastructure:**

Recent changes to the Child Tax Credit are the best (trade) infrastructure we can hope for, although a higher minimum wage is even more desirable. People need more money to buy imported goods and to go back into the labor force. There are many discouraged workers, some of which turn to less than legal means to earn an income. It is time to allow them back into the light. Work does not meet the needs of many workers. Now is the time to change this.

On the government side, the Internal Revenue Service has been tasked with distributing the CTC before the end of this tax year. July is the current goal. We can do better. Rather than relying on payments from the IRS, families who already receive some form of government benefit should receive a refundable CTC through their current benefit stream. We can start this today. Computers can be programmed and cash delivered.

**Part of the need for economic infrastructure must be an immediate COLA for Social Security beneficiaries. Of late, food prices have gone through the rough. Now that stimulus payments have been spent, many of us will be very hungry, very soon. We cannot even buy cola without a COLA.**

**Benefits to workers are even easier to set up. Simply promise employers that they can take any additional credits paid due to refundability (they can already manage adjusting normal withholding) as a credit to their quarterly payments to the Internal Revenue Service. Easy.**

**Last month, I told my story as a stay at home parent who had gone back to work, adding an analysis of sick leave and child care infrastructure issues.**

Not requiring sick leave has been justified by the reactionary sector that claims that in the end, the market will sort everything out. Keynes would respond that in the long run, we are all dead. Let me add that one should not have to wait to die for a day off. Marx would agree. For the market to work, there must be both perfect information and no barriers to entry or exit, no black lists, no private salary information. No such luck.

The perception that doing the right thing makes a business non-competitive is the reason we enact minimum wage laws and should require mandatory leave. Because the labor product is almost always well above wages paid, few jobs are lost when this occurs. Higher wages simply reduce what is called the labor surplus, and not only by Marx. Any CFO who cannot calculate the current productive surplus will soon be seeking a job with adequate wages and sick leave.

The requirement that this be provided ends the calculation of whether doing so makes a firm non-competitive because all competitors must provide the same benefit. This applies to businesses of all sizes. If a firm is so precarious that it cannot survive this change, it is probably not viable without it.

Childcare is best provided by the employer or the employee-owned or cooperative firm. On-site care, with separate spaces for well and sick children, as well as an on-site medical site for sick employees, will uncomplicate the morning and evening routine. Making yet another stop in an already busy schedule adds to the stress of the day. Knowing that, if problems arise, parents can be right there, will help workers focus on work.

Larger firms and government agencies can more easily provide such facilities. Indeed, in the Reeves Center of the District Government, such a site already exists. When the crisis is over, a staff visit would prove illuminating.

Smaller firms could make arrangements with the landlord of the building where offices or stores are located, including retail districts and shopping malls. For security reasons, these would only serve local workers, but not retail customers.

A tax on employers would help society share the pain for requiring paid leave. Firms that offer leave would receive a credit on their taxes (especially low wage firms). Tax rates should be set high enough for that.

**From January 2020 Comments to the House Budget Committee:**

Our main tool in providing for human services is an employer-paid subtraction value-added tax. This levy would be used more to channel tax expenditures to employees rather than through categorical or block grants. The most important feature is an expanded refundable child tax credit, which would be distributed with pay and set to provide income at middle class levels.

The S-VAT could be levied at both the state and federal levels with a common base and tax benefits differing between the states based on their cost of living (which would be paid with the state levy). The federal tax would be the floor of support so that no state could keep any part of its population poor, including migrants. It is time to end the race to the bottom and its associated war on the poor.

The S-VAT will also facilitate human capital expenditures, with credits to support tuition, wages and benefits for low-skill workers from ESL and remedial education

to apprenticeship. These benefits can be used in cooperation with existing workforce investment boards, community colleges and economic development agencies.

Private education providers should also be included in the mix, including and especially the Catholic education system. Blaine Amendments need repeal, opposition to unions ended and a focus on non-college bound students encouraged.

Medicaid for senior citizens and the disabled is a huge contingent liability for some states. In his New Federalism proposals, President Reagan offered to assume these costs in exchange for state funding of all other federal support. The first half of this proposal should be implemented in the form of a new Medicare Part E with no requirement for local funding.

The remainder of health costs would be paid through employer subsidies to low-wage trainees, as described above through an S-VAT, with state goods and services taxes (invoice VAT) covering cash, food and health benefits for unattached non-workers until they can be placed in the appropriate employment or disability program (including substance abuse intervention).

Increasing the general wage level, through higher minimum wages, will remove workers from poverty. The concept of being a member of the working poor should be banished from the national conversation with an eventual \$18 (changed from \$20) minimum wage for both employment and training program participation, starting with \$10 (changed from \$15) immediately. This wage level should adjust for inflation automatically. The best support for state budgets is to make sure that everyone is trained up to their potential.

Tax credit support for families is a better recession circuit breaker than waiting for the Congress and state legislatures to act, although increasing the child tax credit (which should be inflation adjusted) is the best way to provide immediate stimulus, as do higher Food Stamps (which would be mostly repealed by a higher CTC).

The other circuit breaker in a recession is increased income taxation on the wealthy. **Recessions do not happen, as Marx and Schumpeter posited, from over-production or a business cycle. They come about because the wealthy have received tax breaks which encourage asset inflation and questionable investment (often with an assist from the Federal Reserve so that such investments may be migrated to Main Street). Higher income tax rates take money from the savings sector so that the consumption sector can recover (even without government subsidies).**

Higher taxes on the wealthy are beneficial to the economy, now and in the next recession, because they take money out of asset inflation in the savings sector and can then be used to increase spending on the elements of GDP: government purchases, household consumption, net exports and plant and equipment investment (which is not part of asset speculation, as supply side economists falsely assert).

We submitted testimony on the Financial Services and General Government Appropriation regarding our proposed asset value added tax, which includes ending the exemption for mutual funds, and our current analysis on an upcoming recession and how to deal with it. This is also attached. Most of what we said in January 2020 is still current more than a year later, including that a new financial panic and recession is pending. The pandemic response by the federal reserve was a life preserver for the speculation sector. This time, we need to go beyond Wall Street.

Finally, we have attached our analysis of who owes and owns the national debt as a form of class warfare. Claims that the deficit is a vital issue are true, but the solution is not foregoing infrastructure, it is taxing the holders of the debt. Interestingly enough, President Biden identifies correctly those who are in that class. Their taxes should go up, but not to fund infrastructure. We will get more traction from the donor class once we demonstrate both who owns and who owes the national debt.

Thank you for the opportunity to address the committee. We are, of course, available for direct testimony or to answer questions by members and staff.

#### **Attachment—Our Nation's Crumbling Infrastructure, March 6, 2019**

For most states and localities, infrastructure is funded with federal fuel taxes, state fuel taxes, tolls and property taxes for neighborhood roads. Many states have increased their fuel taxes to fund infrastructure deficits. States that belong to the Legislative Exchange Council are less likely to take this step, which is perilous. Our federal system allows states to mess themselves up, so we will not address this problem except to say that states who do not charge adequate taxes do not deserve an extra subsidy from federal funds because of their folly.

In the short term, tolls could be considered for states who will not responsibly increase their fuel taxes. The nature of these projects precludes their adoption on a national basis. Their use is hardly universal. Local High Occupancy Toll or HOT lanes are created using local entrepreneurs, however are virtually empty most of the time.

HOT lanes have become transportation for the wealthy, leaving the working class to deal with the crowded main highway system. While HOT lane providers do upgrade the infrastructure to adjacent lanes as well, their rush hour pricing and general disuse will not maintain public favor for long. These roads may help fund immediate infrastructure deficits, but their pricing structure may not return promised revenue, which will end their usefulness.

For the present, the answer must be higher fuel taxes. They must also remain a direct excise rather than a proportion of fuel prices because prices vary from state to state. This would violate Article I, Section 8's prohibition requiring equal national excise taxes, although individual states could explore the idea. Regardless, the coalition for a higher national excise collapsed long ago, causing our infrastructure crisis.

The reason for this collapse is the end of earmarking. The late Senator John McCain (God rest his soul), was a driving force in the elimination of this funding tool, while Congressman Bud Schuster was its champion.

Earmarks lost favor because of the bad publicity on Alaska's Bridge to Nowhere, which was necessary to reach a vital airport destination. Ironically, the road to the bridge was built and became the road to nowhere because it was part of the overall plan. Governor Sarah Palin's lack of courage in defending the project led to the downfall of earmarks and the coalition for higher fuel excise taxes.

Earmarks simply codified agreements by the local members of Congress and the Senate, the Federal Highway Administration and state and local government to plan specific projects rather than leave their planning solely up to the Department of Transportation. Without these constituencies, the natural constituency for higher fuel taxes could not hold out against general anti-tax sentiment. In essence, government stopped doing its job to represent the interest of society rather than its vocal anti-tax minority.

Bring back earmarks and projects will go forward and fuel taxes can be raised with little heartburn.

#### **Attachment—FY 2022 Energy and Water Development Appropriation**

In 2007, I was employed as a contract administrator at the Department of Energy. During this time, a new energy bill was signed. Soon after, fusion research was cut. This was not our finest moment.

Fusion is a game changer and should be funded on a crash basis before we have to turn out the lights to avoid treading water. Helium-3 is promising and there is even some noise about cold fusion on a larger scale. Energy companies like how cheap coal is and how much cheaper and more popular natural gas is.

Utilities (and even coal producers) need to be offered a way to hedge their bets. To move fusion, set up a public-private partnership to sink in more money in exchange for the right of first use. Any practical use of fusion will be big-industry. It was never going to be any other way. Funds should be increased for fusion now, with a promise of ever greater funding once industrial partnerships are created.

One use for such cheap power is a new transportation system. We can pilot this now, in cooperation with the Departments of Commerce and Transportation, automobile manufacturers, utility companies and eventually selected local governments. I described the project in my CJS testimony.

To best utilize clean energy (even natural) automated cars with central control (rather than their own AI) and energy distribution (rather than being hampered by economically damaging battery development). The latter is old technology, *i.e.*, electric trains and buses.

The same consortia that fund the project can be the backbone for implementing it. Individuals could own cars, while some would be for hire (with monitoring, but not drivers). Debit cards or a link to checking accounts would pay for the car itself (either to rent or own), the roadway and the use of energy and computer services.

Prices would vary based on congestion and vehicles could be taken to a public transportation hub (which might be located at their children's school), with the vehicle returning home empty or going to the next fare. If congestion is low, it may be af-

fordable to drive to work. If it is high, prices for public transit and commuting would be adjusted accordingly.

Energy infrastructure to power the system and facilitate communication would also carry energy and data services, so add Xfinity and Cox to the consortium.

This also gives us the incentive to improve the grid and to redesign highways with driverless cars that won't crash into trees and explode.

We only need willingness to do this. The technology is already there.

#### **Attachment—FY 2022 Financial Services Appropriation**

**Asset Value-Added Tax (A-VAT).** A replacement for capital gains taxes, dividend taxes, and the estate tax. It will apply to asset sales, dividend distributions, exercised options, rental income, inherited and gifted assets and the profits from short sales. Tax payments for option exercises and inherited assets will be reset, with prior tax payments for that asset eliminated so that the seller gets no benefit from them. In this perspective, it is the owner's increase in value that is taxed.

As with any sale of liquid or real assets, sales to a qualified broad-based Employee Stock Ownership Plan will be tax free. These taxes will fund the same spending items as income or S-VAT surtaxes. This tax will end Tax Gap issues owed by high income individuals. A 26% rate is between the GOP 24% rate (including ACA-SM and Pease surtaxes) and the Democratic 28% rate. It's time to quit playing football with tax rates to attract side bets.

Taxes on salaries can be collected by employers without having to file because taxes on capital income and gains would be funded separately. Rental and capital gains on real property would be collected by states and capital gains and income from financial assets would be collected by the federal government, with funds remitted by brokers or trading platforms directly to the Securities and Exchange Commission. Our proposed rate is 26%.

The biggest tax shelter is the use of money market funds to accumulate capital gains and income without taxation. This practice must end if salary surtaxes no longer include non-salaried income. 75% of such funds are held by the top 10% of households as measured by the 2019 Survey of Consumer Finance by the Federal Reserve. I suspect the other 20% are held by high income retirees. The working class will not be harmed.

This ratio affirms what Pareto found, except his ration was 80% of wealth held by 20% of asset holders. Clearly, things have gotten worse for the 80th to 89.9th percentile. If you apply the Pareto rule to higher levels of income, and with Berkshire Hathaway there is no reason not to, the top 1450 households hold roughly 30% of all wealth in mutual funds. This ratio also applies to bond holdings, but this is a topic for another day.

We have left a loophole on Asset Value-Added Taxes that some will be able to fly a 757 through, which is trading stock overseas to avoid taxation. The only way out of this is an internationally negotiated asset VAT rate, or at least the same range. This ends the need for a minimum tax on corporate income (note that corporate income taxes will be discontinued under this proposal).

#### **2021 Recession**

A recession is inevitable because tax cuts and monetary policy are fueling asset speculation while fiscal policy is not. The current speculative toy is crypto-currency, especially Bitcoin. Bitcoin is starting to attract poor people. Coin collection machines now allow being paid in Bitcoin rather than in store credit or cash. Criminals also love it too. It is being sold as a way to invest and grow rich. There is even a fancy name for it: quantum finance. Even Goldman Sachs is investing in Bitcoin. This is not a good sign.

Dealer claims that Bitcoin has big rises and smaller crashes simply proves the point that we are dealing with a legal Ponzi scheme. When the top of the food chain cashes out and everyone else realizes that they own a worthless product.

In the current bond market, commercial properties and properties that have been seized in foreclosure have been purchased with private equity and are so heavily leveraged that they cannot be sold until the holding company files for bankruptcy in the next Great Recession. See Homewreckers: How a Gang of Wall Street Kingpins, Hedge Fund Magnates, Crooked Banks, and Vulture Capitalists Suckered Millions Out of Their Homes and Demolished the American Dream by Aaron Glantz.

The long and short of it is that many now have to rent or own leveraged properties. Our absentee landlords have cashed out and left others to bleed us dry. They essentially own us because we have to work harder and longer to have a place to live while those who have cashed out live in gated and high-end assisted living communities. Before the pandemic, Exchange Traded Funds have been all the rage. Who wants to bet on where the latest pool of junk is hiding?

The Dodd-Frank Act provides for liquidity when crashes, such as the upcoming disaster, occur. However, neither the law nor the Federal Reserve provide any relief to the renters, homeowners and credit card customers whose debts are being purchased by the Federal Reserve and remarketed.

In 2009, home values plummeted. Even borrowers (such as my family) who did everything right (except buying at the top of the market), found themselves unable to sell our homes. Bankruptcy and divorce followed. Job loss in the 2011 debt deal did not help matters either. Had the Federal Reserve or the Virginia Housing Development Agency marked these properties to market, what can only be called an Economic Depression would not have occurred.

When the Fed marks bonds to market, M3 is reduced. The money vanishes in the same way it was created, with a keystroke. This also deflates the financial markets. Experience has shown that simply throwing money out of the window of the Central Banks did nothing to improve the economy. Forgiving debt would have.

Let us not repeat (or rather continue to repeat) the bad practices that left the economy in the doldrums. During the pandemic, the Federal Reserve has purchased bad paper, but without benefit to those whose debts are held in those bonds.

This time around, credit card balances and back rent should be forgiven when the Federal Reserve buys the bonds that hold the debt. Loans could also be written down, which would stop bondholders from benefiting from issuing bonds that should never have been issued in the first place. Renters of both commercial and residential property should be offered the chance to purchase their locations and homes, with assistance from Government Sponsored Enterprises, with their paper replacing the debt paper that has been securitized in Exchange Traded Funds.

In 2009, the United States aided and abetted those who created the crisis. We are currently repeating the mistake. When the inevitable crisis occurs again, doing the right thing will also be the right medicine for the economy. In 2008, the bill passed with the promise that borrowers would be helped. Mr. Paulson lied. Let us act truthfully this time around.

#### **Attachment—Debt Ownership as Class Warfare, September 24, 2020**

Visibility into how the national debt, held by both the public and the government at the household level, sheds light on why Social Security, rather than payments for interest on the public debt, are a concern of so many sponsored advocacy institutions across the political spectrum.

Direct household attribution exists through direct bond holdings, income provided by Social Security payments and secondary financial instruments backed with debt assets. Using the Federal Reserve Consumer Finance Survey and federal worker and Social Security payment and tax information, we have calculated who owes and who owns the national debt by income quintile. Federal Reserve and Bank holdings are attributed based on household checking and savings account sizes.

Responsibility to repay the debt is attributed based on personal income tax collection. Payroll taxes create an asset for the payer, so they are not included in the calculation of who owes the debt. Calculations based on debt held when our study on the debt was published, distributed based on the latest data (2017) from the IRS Data Book show a ratio of \$16.5 of debt for every dollar of income tax paid.

This table shows a summary level distribution of income, national debt and debt assets in three groupings based on share of Adjusted Gross Income received, rather than by number of households. This answers the perennial question of who is in the middle class.

Descending cumulative percentiles	Millions of Returns Filed	Millions of Returns Paying Tax	AGI	Income Tax Paid	Gross Debt	Held by Federal Reserve and Banks	Held in Bonds	Held in Personal Accounts	Held in Government Debt	Assets Net of Debt Liability
					(Factor)	16.55				
Amounts (Billions)										
<b>All returns, total</b>	<b>143.3</b>	<b>99.4</b>	<b>10,937</b>	<b>1,601</b>	<b>26,500</b>	<b>5,238</b>	<b>4,222</b>	<b>3,854</b>	<b>5,384</b>	<b>(7,802)</b>
Top 5% IRS, 8.5% CPS, \$208,053	7.2	7.2	3,995	647	15,671	2,926	3,693	2,411	294	<b>(6,347)</b>
5%-25% IRS, 8.5%-37.2% CPS, \$83,682	28.7	28.3	3,566	432	7,146	1,399	529	1,046	1,238	<b>(2,934)</b>
Bottom 75% IRS, 62.8% CPS, \$0	107.5	63.9	3,375	223	3,683	913	-	397	3,852	<b>1,479</b>

The bottom 75% of taxpaying units hold few, if any, public debt assets in the form of Treasury Bonds or Securities or in accounts holding such assets. Their main national debt assets are held on their behalf by the Government. They are owed more debt than they owe through taxes.

The next highest 20% (the middle class), hold few bonds, a third of bond-backed financial assets and a quarter of government held retirement assets.

The top 5% (roughly 8.5% of households) own the vast majority of non-government retirement holdings and collect (and roll-over) most net interest payments. This stratum owns very little of retirement assets held by the government, hence their interest in controlling these costs. Their excess liability over assets is mostly attributable to internationally held debt. Roughly \$4 Trillion of this debt is held by institutions, with the rest held by individual bond holds, including debt held by members of this stratum in off-shore accounts.

Source: *Settling (and Squaring) Accounts: Who Really Owes the National Debt? Who Owns It?* available from Amazon at <https://www.amazon.com/dp/B08FRQFF8S>.

GLOBAL INFRASTRUCTURE INVESTOR ASSOCIATION  
1 Chamberlain Square CS  
Birmingham, B3 3AX, United Kingdom

28 May 2021

The Honorable Ron Wyden  
Chairman  
U.S. Senate  
Committee on Finance  
219 Dirksen Senate Office Building  
Washington, DC 20510

Dear Chairman Wyden,

On behalf of the members of the Global Infrastructure Investor Association (GIIA), we write to provide our views for inclusion in the hearing record of the United States Senate Committee on Finance/Committee on Ways and Means (“the Committee”) in relation to its Hearing on “Funding and Financing Options to Bolster American Infrastructure/Leveraging the Tax Code for Infrastructure Investment” held on Tuesday, May 18, 2021/Wednesday, May 19, 2021.

GIIA’s members represent many of the leading international investors in infrastructure including a significant number of US-based fund managers and retirement systems among others. Our members own or manage over US\$800bn worth of existing infrastructure assets around the world and control substantial further sums ready for investment in infrastructure across the U.S. economy. They are experts in deploying capital and managing assets to deliver world class infrastructure—from transport to energy, broadband to hospitals—across 55 countries on six continents.

It has long been recognised that the US requires substantial investment in its infrastructure: the challenge has always been how to get investment moving. GIIA and its members believe that utilising private capital represents the best means by which to help this element of the economy get moving. Increasing the involvement of private capital reduces the strain on federal and state budgets while leveraging the private sector to deliver new infrastructure projects that can drive employment and economic growth.

GIIA’s member companies know well the benefits of private investment in providing a wide range of infrastructure projects that are essential for economic growth. With

case studies ranging from the Northwest Parkway in Colorado, the Oswegatchie River Hydroelectric Project in New York, to Fullerton's FiberCity in California, to the Caruna energy network in Finland, and the Port of Melbourne in Australia—we stand ready to demonstrate how private investment can constructively augment public investments to increase the value of infrastructure to communities, cities and states.

Specifically, in the context of the Committee's recent hearing on "Funding and Financing Options to Bolster American Infrastructure/Leveraging the Tax Code for Infrastructure Investment" we strongly believe the following initiatives would drive growth in U.S. infrastructure, both spurring economic growth and creating jobs:

1. Evaluate best practice programs from around the globe for adoption in the United States to accelerate private investment and leverage scarce public dollars. For example, in Australia, Provinces and Premiers successfully used \$3bn in federal incentives to support lease programs that netted \$20bn in additional infrastructure investment.

We believe that a similar program could help state and local governments in the U.S. generate new revenues for investing in infrastructure. By entering into long term leases or concessions with the private sector for the operation of existing assets, governments could invest the proceeds from those arrangements into other infrastructure. Contractual terms can be designed to provide certainty to governments and reassurance to local communities, with ultimate ownership remaining in public hands. Crucially, the lease proceeds create a new revenue stream for governments which, when supplemented by targeted federal incentive grants, provide a new infrastructure funding mechanism without placing additional pressure on already stretched federal, state or local budgets.

As a complement to federal investment incentives, regulatory and statutory tax changes to expand the permitted use of tax-exempt debt would further expand this opportunity to boost infrastructure investment.

2. Implement targeted tax measures to incentivise new investment, thereby creating jobs and enhancing sustainability. Making tax changes allows for stimulus to be measured and focused where it will have most impact. Examples of specific changes include:
  - (a) Amending the US business interest deduction limitations under Section 163(j) such that they only apply a cap based on a taxpayer's EBITDA for all future years. Current law will reduce the cap to 30% of EBIT for tax years beginning on or after 1 January 2022. Infrastructure assets generate substantial depreciation deductions making the proposed amendment an important change to incentivise financing for new and existing assets. This has immediate consequences as without the change, the impact of applying Section 163(j) to EBIT in the future would perversely disadvantage investors who make significant capex investments now (as well as in the future).
  - (b) Encouraging new infrastructure investment by broadening the scope of infrastructure businesses excluded from the business interest limitation cap under Section 163(j).
  - (c) Introducing a (potentially transferable) credit for capex on infrastructure projects spent within a certain "COVID-19 economic recovery" time period. Such a credit already exists for railroad maintenance. Having a similar credit apply more broadly to other classes of infrastructure would spur capital investment and jobs growth.

To summarise, there are highly investible assets in all US states across multiple sectors, including transport (ports, airports, roads railways), water/wastewater, renewables (particularly wind, solar and biomass), and the roll out of high-speed broadband networks. Targeted use of limited federal incentives, combined with thoughtful changes to the Tax Code will unlock outsized investment at the state and local level. A meaningful number of these projects may be accelerated to offer positive near-term economic impact. However, as was experienced after the 2008 financial crisis, achieving this requires significant work and often takes longer than it should. Much good work has been done to streamline permitting over recent years, but more is needed.

We believe the ideas outlined above can be swiftly brought to bear, helping to deliver economic stimuli, with minimal call on the federal purse, while creating jobs



and spurring economic activity that will have far-reaching benefits in local and national economic terms.

We would welcome the opportunity to discuss our thoughts with you and would be happy to organise virtual meetings in the coming weeks to help facilitate discussions.

Yours sincerely,

Lawrence Slade  
Chief Executive  
Global Infrastructure Investor  
Association

Naz Klendjian  
Chair, GIIA Tax Working Group

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GOVERNMENT FINANCE OFFICERS ASSOCIATION  
660 North Capitol Street, Suite 410  
Washington, DC 20001

June 3, 2021

The Honorable Ron Wyden  
Chairman  
U.S. Senate  
Committee on Finance  
219 Dirksen Senate Office Building  
Washington, DC 20510

The Honorable Mike Crapo  
Ranking Member  
U.S. Senate  
Committee on Finance  
219 Dirksen Senate Office Building  
Washington, DC 20510

Dear Chairman Wyden, Ranking Member Crapo, and distinguished members of the Committee:

Thank you for holding the hearing *Funding and Financing Options to Bolster American Infrastructure*. The Government Finance Officers Association (GFOA) represents over 21,000 public finance officers from state and local governments, schools and special districts throughout the United States.

GFOA is dedicated to the professional management of governmental financial resources by advancing fiscal strategies, policies and practices for the public benefit, including issues related to issuing tax exempt bonds and investing public funds. Additionally, GFOA supports a strong network of public sector issuers in Washington, DC, called the Public Finance Network. Together with issuer organizations, the public finance network is able to issue letters of support from millions of public sector entities throughout the year. But on behalf of the GFOA and its members, we appreciate the opportunity to provide comments for this public hearing focusing on the tax tools that are so critical at the local level.

Our system of federalism requires a strong federal, state and local partnership to achieve our shared goals. One of the best examples embodying that federal partnership is the tax-exempt municipal bond. Tax-exempt bonds are the primary mechanism through which state and local governments raise capital to finance a wide range of essential public projects. The volume of municipal bond issuance for the period from 2009 to 2019 amounted to **\$4.2 trillion**.

Communities across the country depend on strong, substantive federal tax policy for state and local governments to meet their capital needs. For over 100 years, the municipal bond market has worked fairly and efficiently to address these needs, whether it is in our largest states and cities or the rural areas across the United States. We urge Congress to not only protect this vital tool, but to act swiftly and adopt a number of provisions to further enhance the effectiveness of this tool.

As Congress deliberates the important topic of supporting infrastructure investment, we wish to broadly outline a few key points and recommendations for your consideration.

**Preserve the Tax Exemption for all Municipal Securities:** A top, longstanding priority for the nation's state and local public finance officers is the full preservation of the tax exemption on municipal bond interest. Elimination, reduction or capping of the tax exemption would pose immediate increased costs to the critical projects financed by state and local issuers. Added costs to capital projects would force state and local governments, already budget-strained by the ongoing pandemic, to make difficult and pro-recessionary choices. Furthermore, increased costs would ultimately be borne by the American taxpayer.

**Reinstate the Tax Exemption for Advance Refunding Bonds:** Before January 1, 2018, municipal issuers were able to issue single tax-exempt advance refunding bonds prior to the 90 days before the call date. This critical tool allowed state and local governments to effectively refinance their outstanding debt in order to take advantage of more favorable interest rate environments or covenant terms. Advance refunding bonds frequently provided issuers with the flexibility to lower debt servicing charges that would otherwise be a fixed cost. GFOA found that between 2007 and 2017, there were over 12,000 tax-exempt advance refunding issuances nationwide which generated over \$18 billion in savings for tax and ratepayers over the ten-year period.

Prior to their elimination in the Tax Cuts and Jobs Act (“TCJA”) (Pub. L. 115–97), advance refunding bonds made up approximately 27 percent of issues in 2016. Restoration of this tax exemption would require an act of Congress, but would be one of the most effective actions to provide state and local governments with more financial flexibility to weather downturns and increase infrastructure investment. We strongly support bipartisan measures like S. 479, the *LOCAL Infrastructure Act*, that seeks to restore this vital, cost-saving tool.

**Increase Access to Capital for Small Borrowers:** For many thousands of small issuers and governmental and nonprofit borrowers, increasing the bank qualified borrowing limit from \$10 million to \$30 million, and having it apply at the borrower level would provide access to low cost capital to thousands of small local governments and non-profit hospitals and healthcare systems for immediate project needs.

Bank qualified bonds are particularly useful to smaller governments, as they have historically enabled these jurisdictions to finance infrastructure at lower costs than traditional bond financing. Bank qualified bond issuers save between 25 and 40 basis points on average. For example, on a 15-year, \$10 million bank qualified debt financing, an issuer could expect to save between \$232,000 and \$370,000. Raising the bank qualified debt limit to \$30 million, would save issuers between \$696,000 and \$1.1 million on a \$30 million bank qualified bond issue. This is a substantial savings for our nation’s smaller governments, which can be used to maintain and improve valuable community services and finance other much-needed capital improvement projects.

**Restore and Expand the Use of Direct-Pay Bonds:** While not currently permitted to be issued, in the past, Congress authorized governments to issue taxable direct subsidy bonds. These bonds allowed the government/issuing entity to receive a payment from the Federal Government for the life of the bond, covering a percentage of the interest costs. Bonds under previous programs could be issued for most governmental purposes, and the subsidy generally provided the issuer with a lower net interest cost on the financing compared with conventional tax-exempt bonds. Restoring and expanding the use of direct-pay type bonds and ending their subsidy exposure to sequestration, would immediately create an attractive investment option globally while funding thousands of state and local projects, particularly while the municipal bond market is recovering from the initial effects of the COVID–19 pandemic.

Accordingly, we support bipartisan measures like S. 1308, the *American Infrastructure Bonds Act*, that would provide another important tool among the resources available to state and local governments to address our infrastructure needs.

GFOA will continue to support your efforts and appreciate your attention as you begin this important conversation on the vital tools that would provide substantial support to local governments in their effort to build the infrastructure our country so desperately needs. We look forward to working with you and supporting your efforts on this and other public finance matters of mutual interest.

Emily Swenson Brock  
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INCOMPAS  
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May 17, 2021

U.S. Senate  
Committee on Finance  
219 Dirksen Senate Office Building  
Washington, DC 20510

**Re: May 18, 2021 Hearing on “Funding and Financing Options to Bolster American Infrastructure”**

Dear Chairman Wyden and Ranking Member Crapo:

In representing many small broadband Internet access service and communication providers across the United States, INCOMPAS, the Internet and competitive networks association, believes that “Internet for All” should be a call-to-action as a result of COVID–19 and the digital divide in this country. As our lives continue to adapt and rely more heavily on broadband services to meet the challenges of the coronavirus pandemic and beyond, the commitment to reach all Americans with better, faster, more affordable broadband connectivity must be embraced.

We applaud the work of Congress and the Biden Administration in recognizing with the American Rescue Plan Act that, despite our nation’s best efforts and significant investment by the public and private sectors, we still face serious challenges in connecting all Americans. This includes homes and businesses of all sizes to reliable high-speed broadband. We also commend the efforts of Congress and the FCC to address the needs of low-income Americans through the Emergency Broadband Benefit program and of school children, teachers, and library patrons through the Emergency Connectivity Fund. While competition is the key to affordable service, many Americans need financial assistance to get connected.

Many Americans have faced significant challenges during the COVID–19 pandemic due to the fact they do not have broadband network availability in their communities. Achieving universal broadband availability is an ambitious but essential goal. The American Rescue Plan tackles head-on the deployment needs by allocating \$10 billion specifically for broadband infrastructure investment by the states. In addition, it also permits states and localities to use the State and Local Recovery Funds for broadband infrastructure, among other projects. It is important that states and localities consider their communities’ broadband needs today as well as in the future. However, that funding is not sufficient to address all of the nation’s broadband needs.

COVID–19 has exposed deep gaps in Americans’ ability to access the Internet, and it is time for our nation’s leaders and for Congress to take action. Millions remain disconnected—either because they do not have a broadband network available to them or they cannot afford the service. Now more than ever, our communities want and need universal broadband coverage for their students, small businesses, and health care workers. Unfortunately we hear too often about kids doing homework in parking lots because they lack access to fast, affordable broadband at home. This is a national tragedy. To meet this challenge, we ask the federal government to help enable solutions that will make a significant difference in the lives of all Americans. It is very important that robust broadband capability be deployed to government agencies, residences, businesses, and town centers.

Congress should prioritize building new, faster networks that can meet our nation’s needs today and in the future. INCOMPAS supports a significant investment in broadband infrastructure deployment so we can compete with other nations who have 1 gigabit speed and fiber goals. To enable more scalable, robust, and reliable networks to be deployed in areas that are lacking adequate service, investment in backbone, middle mile, and/or last mile networks may be necessary. New network builders can deliver 1 gigabit and above speeds today that will be able to scale as demand increases, and Congress should require that funding be used for such capability as much as possible. We believe fiber is a critical component in delivering reliable broadband infrastructure and 1 gigabit speeds. Everyone in the broadband ecosystem needs access to fiber—including fixed broadband, cable, cellular (mobile), and satellite companies. Building more fiber helps all, and fiber densification throughout the U.S. is critical for winning the race to 5G.

In addition, funding assistance should be directed to local jurisdictions to help hire, train, and/or expand their capability to process broadband infrastructure permitting

and approval processes. We urge you to incentivize state and local governments to adopt speedy review processes of those projects when broadband providers seek authorization to access public rights-of-way and obtain construction permits and to charge cost-based fees for those processes. These actions will spur faster and more efficient deployment which will benefit consumers who are desperately waiting for new networks to reach them. We also urge you to build upon the FCC's Emergency Broadband Benefit and Emergency Connectivity Fund programs and extend assistance to every American household that cannot afford a home connection so that they are not left behind in the digital economy.

We have the ability and responsibility as Americans to go big and bold on broadband. To harness the power of an Internet for All that powers the streaming and cloud-driven economy. Now is the time to take steps toward achieving a future of connectivity, faster speeds, and affordable prices in the U.S. We are looking to your leadership and Congress for creating new infrastructure goals and urging your colleagues to have targeted broadband policies that enable all Americans to access high-speed Internet, and we hope to have your continued support.

Thank you for your consideration.

Sincerely,  
Chip Pickering  
CEO

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U.S. Senate  
Committee on Finance

### Introduction

The Municipal Bonds for America Council (MBFA) appreciates this opportunity to offer its views regarding the critical issue of municipal bond financing in the context of infrastructure investment. MBFA commends the Committee for its work to address the massive and growing infrastructure deficit our country is currently facing. We believe expanding the use of municipal bonds to finance state and local investment in infrastructure must be a key component of a comprehensive infrastructure initiative.

The MBFA is a coalition of municipal market leadership working together and in concert with state and local governments to promote and advance the \$4 trillion municipal bond market in the context of infrastructure. The coalition is committed to advancing initiatives that improve the municipal securities market while protecting the interests of taxpayers, investors, and issuers.

As the Committee continues work on details of a federal infrastructure plan, we urge you to ensure bond financing is a cornerstone to any federal infrastructure package. This includes maintaining the tax exemption for municipal bonds, utilizing green bonds for state and local governments to invest in sustainable infrastructure, and restoring the ability of issuers to refinance their debt, among other provisions.

We call on the Committee to follow guidance provided in H.R. 2632, the Local Infrastructure Financing Tools Act, and H.R. 2, the Moving Forward Act of the 116th Congress. That legislation included provisions that would allow the federal government to further invest in infrastructure at little cost to the tax-payer.

These include:

- Restoring the ability of state and local governments to save taxpayer dollars and generate additional funds for infrastructure and other key initiatives by restoring tax-exempt advanced refundings (ARs);
- Expanding the use of tax-exempt private-activity bonds (PABs);
- Raising the Bank Qualified debt limit from \$10 million to \$30 million and tie to inflation;
- Creating a direct pay bond similar to the former Build America Bond (BAB) program **exempt from sequestration**; and
- Expanding the use of environmental, social and governance (ESG) and green bonds.

### **The Role of Municipal Bonds in Infrastructure Finance**

Borrowing by state and local government in the capital markets is the single biggest and most important source of funding for infrastructure investment in America. Approximately 75 percent of the infrastructure in the US is financed, maintained and owned by state and local governments. Approximately 75 percent of state and local infrastructure was financed in whole or part with municipal securities. And more than 90 percent of that borrowing was using tax-exempt bonds.

The tax-exemption for municipal bond interest is the single most important federal infrastructure investment program. Because investors know they will not face a tax liability for the municipal bond interest they earn, they accept a lower rate of return on their investment. This translates into huge interest cost savings for state and local governments who issue tax-exempt bonds and provides accessible infrastructure at the lowest cost for all Americans that they represent. The tax-exemption has existed in federal law since the very first income tax after the 16th Amendment was ratified.

Depending on market conditions and the specifics of the transaction, state and local governments save around two percentage points on their borrowing relative to what they would pay if they issued taxable bonds. Applied to the municipal market overall, state and local governments save around \$80 billion per year in interest cost as a result of the federal tax-exemption for municipal bond interest.

Bonds finance a wide variety of projects including schools, water and sewer systems, highways and roads, bridges and tunnels, airports, public buildings, public and non-profit colleges, universities and hospitals, and many more.

In addition to cost savings for bond issuers, tax-exempt finance for infrastructure provides several other benefits.

- It is an effective, three-way partnership between the state or local issuer, the federal government providing the tax-exemption, and investors providing capital.
- Bond financing imposes a market test on infrastructure projects. Investors need to know that the projects they finance are viable and sustainable in order to ensure the return of their investment.
- The tax-exempt bond market attracts capital from a wide variety of investors, including individuals, mutual funds, commercial banks, property and casualty insurance companies, and others.
- Municipal bonds are very safe investments. The default rate for municipal bonds issued for infrastructure projects is near zero.
- Tax-exempt bonds “leverage” the federal contribution towards the cost of infrastructure. Every dollar in federal cost results in around four dollars of infrastructure investment.

Despite the success of tax-exempt finance for over 100 years, there are steps Congress can take to expand the market and provide additional opportunities for state and local infrastructure investment. We are pleased to present some options.

### **Restore Advance Refundings**

State and local governments routinely refinance their outstanding debt obligations just as corporations and homeowners do. The advance refunding (AR) technique allows state and local government issuers to refinance, and thus benefit from lower interest rates, when the outstanding bonds are not currently callable.

While a municipal refunding transaction is analogous to refinancing a mortgage, a key difference is that a homeowner typically can refinance a mortgage at any time. Most tax-exempt bonds are issued with a call option that allows the issuer to redeem bonds at face value only after a lock-out period, typically ten years. But what happens when interest rates fall before the old bonds are callable? An advance refunding occurs when interest rates have fallen sufficiently that an issuer can achieve their targeted debt service savings but before the outstanding high interest bonds are callable.

In advance refundings that were permitted before 2018, issuers would sell new, low interest bonds and invest the proceeds in an escrow. Those escrow investments would cover debt service on the old, high interest bonds until they become callable and would cover the cost of redemption at that time.

The Tax Reform Act of 1986 imposed significant restrictions on ARs. Before 1986 state and local governments could advance refund their bonds as many times as they liked. There were examples of issuers conducting ARs when interest rates had

fallen just a bit and having multiple refunding bonds outstanding at the same time for the same project, all generating tax-exempt interest. Congress responded by restricting ARs to one per bond issue. ARs became a limited option for state and local governments, and most devised debt service savings targets they must have been able to achieve in order to justify using their single AR opportunity. The restrictions imposed in 1986 represent a reasonable balance between offering refunding opportunities and protecting the federal government's fiscal interest.

As interest rates currently rise from historic lows, state and local governments will acutely feel the effects of the loss of advance refunding. The inability to lock in lower interest rates when they are available will result in increased costs to these governmental entities and increased tax burdens on their residents. Moreover, at a time of relatively low, but steadily increasing, interest rates, state and local governments have lost an important means of restructuring their outstanding debt to respond to short- or long-term fiscal issues (which can include both paying off their debt more quickly or restructuring debt to deal with short term financial difficulties).

There are no alternatives to advance refundings that are as effective in terms of cost or risk. State and local governments are sometimes hesitant to use interest rate swaps or other derivatives to "simulate" the benefits of advance refundings. Similarly, other alternatives are more costly than ARs and will not be able to provide an effective replacement for advance refunding bonds. In 2020 interest rates for taxable municipal securities were so low that it was possible for some issuers to advance refund outstanding tax-exempt bonds with taxable bonds. However, market movements in recent months have begun to close those opportunities. Tax-exempt advance refundings will soon be the only option for issuers.

In the House Representative Terri Sewell (D-AL) has introduced the Local Infrastructure Financing Tools (LIFT) Act (H.R. 2634), which would, among other provisions restore tax exempt advance refundings to their pre-2018 status, allowing state and local governments to refinancing outstanding debt at the current lower interest rates. In the Senate Senators Roger Wicker (R-MS) and Debbie Stabenow (D-MI) recently introduced the Lifting Our Communities through Advance Liquidity for Infrastructure (LOCAL) Act (S. 479) with strong bipartisan support. The MBFA calls on the Committee to ensure this tool is reinstated fully to its pre-2018 status.

#### **Expand the Use of Private Activity Bonds**

Sometimes it makes sense for a state or local government to partner with private infrastructure investors or operators on a project. These public-private partnerships can often result in efficient financing plans for complex projects.

Bonds issued by state and local governments may be classified as either governmental bonds or Private Activity Bonds (PABs). Governmental bonds are bonds where there is no significant involvement of private entities in a project. PABs are bonds where more than ten percent of the proceeds of an issue are used by a private entity and more than ten percent of the debt service on the bonds is paid or secured by a private entity. The Internal Revenue Code significantly restricts the use of PABs, since the subsidy provided by the tax-exemption is intended to be directed to projects which have a discernable public benefit.

There are two general restrictions on PAB issuance. The first imposes overall limits on the volume of PABs that can be issued in each state. Although some very big-ticket projects like airports are exempt from the volume caps, states must treat their annual volume allocation of PABs as a scarce resource and allocate it to only the most worthy projects. The second restriction is on which types of projects are eligible for PAB financing. In general PABs are limited to infrastructure projects such as water and sewer systems, airports, transit system, solid waste disposal facilities and others. There is a separate, nationwide volume cap on PABs issued for highway projects which is administered by the Department of Transportation. Other uses of PABs include single- and multi-family housing for targeted populations and financing for small manufacturing companies and first-time farmers.

PABs are an important tool for public-private partnerships in infrastructure finance and development, since that is often the only way to obtain tax-exempt financing for projects with equity investors. Public-private infrastructure partnerships can often deliver projects faster, more efficiently, and at a lower cost than purely public projects.

Towards that end, MBFA strongly supports expanding PABs. For projects defined as publicly accessible infrastructure, the Tax Code should be indifferent as to whether the project is public, private, or some mix. If a state or local government

determines that the best approach to building a new airport terminal, sewage treatment plant, or other infrastructure project is to work with a private developer, they should not lose access to tax-exempt financing. The benefits to taxpayers are the same whether the project is public or private.

#### **Raise the Bank Qualified Debt Limit**

Small state and local governments sometimes have more difficulty accessing the capital markets than bigger governments. Not as many banks “cover” small issuers, and they may not be as well known among investors. In recognition of these issues, Congress in the Tax Reform Act of 1986 provided a special means for small communities to place their bonds with commercial banks.

Section 265 of the Internal Revenue Code generally prohibits banks from taking an interest deduction on borrowing to finance investments in tax-exempt bonds. However, as a way to encourage banks to buy the bonds of small communities, Congress permitted banks to continue to deduct 80 percent of the interest cost associated with buying bonds issued by local governments who issue less than \$10 million per year, now known as “bank qualified” (BQ) bonds. Since 1986, inflation has eroded the value of the \$10 million BQ exemption. The exemption is worth only \$4.2 million in 1986 dollars.

Representative Sewell’s LIFT Act includes provisions to expand BQ bonds. The legislation would raise the annual BQ limit to \$30 million while tying increases to inflation, something that the 1986 tax law failed to implement. The legislation also applies the bank qualified debt limit on a borrower-by-borrower basis, rather than aggregating all bank qualified bonds issued by a conduit issuer, so that schools, hospitals and other community organizations can more easily access capital. This legislation is an effective solution to make rural municipal debt a more attractive investment, in turn, lowering the cost to issuers. We call on the Committee to include this provision in any infrastructure draft. Representatives Sewell and Tom Reed (R-NY) in the previous Congress introduced the Municipal Bond Market Support Act (H.R. 3967) which would have made the same changes.

#### **Reinstate Direct Pay Bonds**

The MBFA calls on the Committee to pass legislation that would create a new direct-pay taxable bond, but ensure the new bond is exempt from sequestration. This new tool, much like BABs, would be an effective way to drive infrastructure investment at the state and local level.

The American Recovery and Reinvestment Act of 2009 (Pub. L. 111–5), enacted in response to the 2008 financial crisis, provided authority for Build America Bonds (BABs). BABs gave state and local governments an alternative to tax-exempt financing. Instead of issuing tax-exempt bonds, issuers were able to issue bonds where the interest was taxable to investors and then receive a reimbursement from the federal government for a portion of their interest expense. During the 2009–2010 period before BABs authority expired, state and local governments issued \$181 billion to finance infrastructure investment. BABs were successful in part because they attracted investors like pension funds and foreigners who, because they pay little or no federal income tax, have no use for federally tax-exempt income. By drawing issuance volume away from the tax-exempt market, direct-pay bonds can lower tax-exempt yields and provide benefits to state and local issuers who do not even use them. However, the usefulness of BABs was limited by the Budget Control Act of 2011 (Pub. L. 112–25), which imposed sequestration on the interest reimbursement payments that state and local governments were promised at the time the bonds were issued.

According to a recent House Transportation and Infrastructure Committee report titled “Moving America and the Environment Forward: Funding Our Roads, Transit, Rail, Aviation, Broadband, Wastewater and Drinking Water Infrastructure,” the \$181 billion in Build America Bonds that were issued in the two years they were available supported nearly 2,300 projects around the country. This influx of capital helped ensure a prosperous recovery from the devastation of the great recession. Importantly, the existence of a direct pay bond option for issuers will act as a borrowing rate “governor” of sorts for them. They will have an option to issue potentially less costly taxable bonds if in the future if tax-exempt borrowing rates spike to levels above historic relative spreads to taxable debt. This will serve to lower their borrowing cost and reduce the annual sum of lost revenue to the Treasury resulting from the existence of the tax-exempt expenditure.

Legislation in both the House and Senate has been introduced this Congress that would create a new direct-pay bond program. The American Infrastructure Act in

the Senate and the LIFT Act in the House both create a new direct-pay bond the American Infrastructure Bond (AIB). The AIB is styled after the prior generation BAB, but there are several key differences in the House and Senate packages. The Senate AIB calls for a direct pay bond, exempt from sequestration, with a flat federal reimbursement rate to issuers set at a revenue neutral 28 percent. The House companion, while offering a tiered, more generous descending reimbursement schedule, is subject to sequestration.

When Congress revives direct-pay bonds, continuing to apply sequestration to interest subsidy payments would be a major discouragement for issuers to adopt the product. It is essential that when Congress revives direct-pay bonds, the interest subsidy payments no longer be subject to sequestration.

#### **ESG and Green Bonds**

It is essential that climate and environmental considerations be a central component of any infrastructure initiative. Here again, tax-exempt finance can help. We ask that as you look at these important issues, consider Environmental, Social and Governance (ESG) or “green bond” financing to support these endeavors to ensure they can withstand current and future changes due to change in climate, and additional needed mitigation efforts at low cost to the federal tax-payer.

State and local governments have an important role to play in addressing climate change. States and localities own and operate virtually all the nation’s water, sewer and solid waste disposal facilities. Power authorities owned by states and localities generate a significant portion of the nation’s electricity. State and local governments own and operate many thousands of cars, trucks and other equipment that run on fossil fuels. State and local governments have been turning to tax-exempt bonds to finance decarbonization efforts. While ESG and green bonds continue to be a growing portion of public finance issuance, enactment of new tax-exempt financing authority by Congress would address this issue effectively.

Some potential ESG bond federal policy remedies include:

- Private Activity Bonds (PABs) for electric vehicle infrastructure: A proposal included in last year’s H.R. 2 would permit PAB financing for facilities “used to charge or fuel zero-emissions vehicles.”
- Remove PABs for water and sewer facilities from volume cap requirement. Currently private activity bonds issued for water and sewer facilities must obtain volume cap allocation. They would be exempt from the volume cap under a proposal included in last year’s H.R. 2.

#### **Conclusion**

For over 100 years, municipal bonds have served as the primary financing mechanism for public infrastructure. Three-quarters of the nation’s core infrastructure is built and financed by state and local governments. Restrictions such as prohibiting advance refundings and limiting the use of PABs for infrastructure ties the hands of local governments and discourages capital investment in new infrastructure projects.

As your Committee continues work on details of a federal infrastructure plan, we ask that you work to ensure bond financing is a cornerstone to any federal infrastructure package. This includes maintaining the tax exemption for municipal bonds, the utilization of green bonds for state and local governments to invest in resilient infrastructure and restoring the ability for issuers to refinance their debt amongst other provisions.

The MBFA appreciates the Committees work on addressing the infrastructure needs of the country, and reaffirming support for the cornerstone of infrastructure financing, tax-exempt municipal bonds.

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Chair Wyden, Ranking Member Crapo, and members of the Committee, thank you for providing the opportunity to submit a statement for the record of the hearing entitled “Funding and Financing Options to Bolster American Infrastructure.”



NAFA Fleet Management Association (NAFA) appreciates the Committee on Finance's efforts to examine the current state of our nation's infrastructure and discuss methods of federal involvement to bring about infrastructure improvements and funding stability.

NAFA has more than 2,000 individual fleet manager members from corporations, universities, government agencies (federal, state, and local), utilities, and other entities that use vehicles in their operations. NAFA members control more than 4.2 million vehicles and manage assets in excess of \$92 billion. These vehicles travel more than 84 billion miles each year.

The fleets managed by NAFA's Members run the gamut from light- to heavy-duty vehicles. Depending on the employer's mission, these fleets may be contained to one specific geographic area, dispersed among multiple regions or states, or be in multiple countries. In addition, NAFA is supported by more than 1,000 associate members who represent companies that support fleet managers in their jobs. These include vehicle manufacturers, leasing companies, aftermarket equipment suppliers, telematics firms, service providers, etc.

### Comments

NAFA shares your concern about the current state of U.S. infrastructure, especially regarding the future challenges of funding the maintenance, repair, and expansion of our nation's highway system. The highway trust fund (HTF) has faced repeated projected funding shortfalls due to its reliance on revenues from the federal motor fuel excise tax. These past shortfalls are underscored by the Congressional Budget Office's recent report predicting the HTF's highway account's insolvency in 2022.<sup>1</sup>

NAFA recognizes that transfers from the U.S. Treasury's general fund may be the most practical method to resolve the near-term solvency issues facing the HTF. However, NAFA believes that innovative alternative funding solutions are also necessary to provide for the long-term stability of the HTF.

Establishing a national vehicle-miles-traveled (VMT) pilot program to test alternative user-based funding mechanisms would provide invaluable insights into the feasibility of a national VMT fee as an alternative to the federal motor fuels excise tax. As you know, the federal-level VMT pilot program concept has been included in several past legislative proposals but has yet to be realized.

While a VMT fee may be a part of the long-term changes needed in the HTF's funding structure, there are still hurdles regarding equity, payment evasion, technology, administration, and public acceptance that could be addressed using the results generated from the federal pilot program. NAFA believes a federal pilot program is a necessary first step for determining whether a VMT fee is a viable future funding solution.

NAFA offers the following comments regarding the potential structure and implementation of a federal VMT pilot program.

**Federal VMT Pilot Program Scale & Participation**—A representative cross-section of vehicles must be recruited to participate in the program. Nonfreight commercial and government fleet participants are one key sector of roadway users, alongside the motor freight community and, most importantly, the motoring public. These roadway user classifications should be well represented in a federal pilot program. Congress should consider incentives or other benefits that may be needed to encourage pilot participation.

**VMT Fee Rate Setting Processes & Equivalency to Current User Fees**—Pilot program fee rates should be set at levels that would be revenue-neutral to current excise taxes based on average driver mileage and other relevant metrics. Imposing a rate-setting scheme that increases tax burdens will disincentivize organizational and individual pilot participation.

**Data Collection Systems & Costs Associated with a Federal VMT Pilot Program**—The program should be open to the spectrum of technologies available for VMT data collection. Permitting a multitude of data collection technologies in the pilot will help determine which mechanisms are most effective in achieving the goals of a future VMT program. Giving participants a choice in how they transmit

<sup>1</sup> Congressional Budget Office. (February 2021). *highway trust fund Accounts—CBO's February 2021 Baseline*. Retrieved from <https://www.cbo.gov/system/files/2021-02/51300-2021-02-highwaytrustfund.pdf>.

VMT data will attract a larger pool of participants. This will help ensure that the results of a pilot program are representative of the nation's fleet.

Fleet vehicles can generate highly detailed and granular-level data, which could be extremely useful in a federal VMT pilot program. However, collecting and analyzing this data does come at a cost to fleets who often rely on third-party vendors as partners in their business operations.

While larger fleets may already have vehicles equipped with appropriate data collection systems that could facilitate the application of a VMT fee, many smaller sized fleets do not utilize these technologies. Additionally, they do not have the resources to acquire and implement these tools into their operations. Fleet size thresholds or exemptions should be considered in applying any VMT fee program as well as any associated data collection technology requirements.

**Accounting for Varied Driving Environments**—A federal VMT pilot program should be structured to consider the varied driving environments U.S. drivers encounter—urban, suburban, and rural. A mile driven on a rural road should not be regarded as equivalent to a mile driven on an urban road, and NAFA believes VMT fee rates should be adjusted accordingly. Provisions should be included in a federal pilot program to allow a segment of the study participants who utilize more advanced VMT tracking systems to pay variable VMT fee rates based on location or road congestion levels.

### **Conclusion**

NAFA appreciates your leadership in ensuring the maintenance and improvement of the country's infrastructure by looking forward at the future of funding highway programs. The interstate highway system enables the free flow of goods and people across the nation. The country's crumbling roadway system not only endangers the safety of drivers but imposes a significant economic burden by slowing the flow of goods and services throughout the country. The cost of inaction on infrastructure only grows greater by the day, so we look forward to Congress seizing this window of opportunity to act on behalf of the American people.

While there have been discussions regarding a near-term imposition of a federal VMT tax on certain commercial vehicles weighing over 10,000 lbs., NAFA urges caution and does not support these proposals. Nor do we support suggestions to impose a VMT tax on certain commercial vehicles based on fleet size thresholds. There are numerous unresolved issues related to implementing such a tax and pushing ahead before a federal-level evidence base is established threatens to create a half-baked system.

Thank you again for your consideration of this critical issue. If you or your staff have any questions or need additional information, please feel free to contact me or Patrick O'Connor, NAFA's U.S. Legislative Counsel, at 703/351-6222 or patoconnor@kentoconnor.com.

Sincerely,

Bill Schankel  
Chief Executive Officer

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NATIONAL ASSOCIATION OF HEALTH AND  
EDUCATIONAL FACILITIES FINANCE AUTHORITIES

U.S. Senate  
Committee on Finance

May 18, 2021

Respectfully submitted by:

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The National Association of Health and Educational Facilities Finance Authorities (NAHEFFA) respectfully submits this statement to the Senate Finance Committee for the hearing “Funding and Finance Options to Bolster American Infrastructure” held on May 18, 2021.

NAHEFFA is the national association representing conduit issuers of federally tax-exempt bond debt on behalf of nonprofit institutions for health care, education, cultural and other charitable purposes. Federally tax-exempt conduit bond financing for not-for-profits is a proven private-public financing tool, an established delivery system for quantifiable economic and social benefits under the federal tax code with decades-long record of success of lowering the cost of essential public benefits and strengthening communities.

Bond issuance for charities, such as nonprofit hospitals and universities, is the function of a government bond conduit issuer, generally an authority, which is authorized by state law. Under the conduit structure, a discrete federal economic tax benefit, exemption of interest from federal income tax on long-term debt, is delivered through a state or local governmental conduit issuer accountable to local voters and local public officials. The nonprofit borrowers, not the governmental issuers or state/local taxpayers, are obligated to repay this conduit debt and use conduit bond proceeds to finance and refinance mission-critical capital infrastructure and improvements such as medical clinics, sheltered workshops, hospitals, and academic buildings including research and STEM buildings, residence halls, modern energy plants as well as other energy efficiency improvements, and museums.

The conduit lenders are either funds or individuals that buy conduit bonds through the capital markets or banks so that conduit lending is subject to market discipline as well as federal and state regulation. The lower the cost of funds, the more money is available for front-line purposes and workers such as medical professionals, teachers, and STEM researchers. Due to their longstanding success, federally tax-exempt conduit bonds have traditionally enjoyed decades of bipartisan support.

NAHEFFA and our member authorities support the following policy changes to improve and restore American infrastructure.

#### **Restore Advance Refunding Municipal Bonds**

The *Tax Cuts and Jobs Act (TCJA) of 2017* eliminated tax-exempt advance refunding bonds which had allowed states, localities and 501(c)(3) entities to refinance existing debt with the greatest flexibility, resulting in substantial reductions in borrowing costs. Prior to the TCJA, governmental bonds and 501(c)(3) bonds issued by state and local governments were permitted a single advance refunding. This allowed borrowers to take advantage of favorable market conditions and reduced interest rates, leading to billions of dollars in savings, which ultimately benefitted taxpayers and the millions of users of charities, including students, patients, as well as ordinary citizens protected by our police and fire first responders.

NAHEFFA supports the restoration of advance refunding as outlined in bipartisan legislation recently introduced by Senators Stabenow (D–MI) and Wicker (R–MS), S. 479, the *Lifting Our Communities through Advance Liquidity for Infrastructure (LOCAL Infrastructure) Act of 2021*. As the nation continues to recover from the economic challenges of the past year of the COVID–19 pandemic, the restoration of advance refunding would enable state and local governments and nonprofits to manage bond debt and reduce borrowing costs for sorely needed public and charitable projects. By reducing the cost of capital for public and nonprofit borrowers, restored advance refunding would also free up scarce dollars to support essential workers such as doctors, nurses, researchers, and teachers, as well as police and fire first responders.

#### **Enhancement of Small Borrower Rules**

We also support enhancing the small borrower, also referred to as “bank qualified”, rules which will benefit many small nonprofit health and educational institutions and other small charities, as well as many small local governments. We support increasing the maximum bond issuance of eligible bonds to \$30 million from the current level of \$10 million. Further, applying the cap to the borrower instead of the issuer will allow our governmental conduit issuers to issue these conduit bonds on behalf of small institutions. The point of the cap is to limit the benefits of the small borrower/bank qualified bonds to smaller governments and charities. The limitation should not apply to the governmental conduit issuer, which is not the borrower and does not benefit from the financing, but rather to the small charitable borrower.

In addition to also restoring advance refunding, legislation recently introduced in the House of Representatives by Representative Sewell (D-AL)—H.R. 2634, the *Local Infrastructure Financing Tools (LIFT) Act*—would enhance bond financing opportunities for state and local governments and nonprofit organizations through increased limits on bank qualified debt and by applying the maximum dollar limit to the borrower.

#### **Direct Subsidy Bonds**

The LIFT Act also includes the creation of a new American Infrastructure Bond similar to the previous Build America Bonds program. The previous Build America Bonds were limited to governmental bonds and did not apply to nonprofit institutions. There is interest in the nonprofit and charitable sectors to include these vital institutions in this program.

If 501(c)(3) entities are included, it is critical that appropriate legislative language be used so that their inclusion is effectively implemented at both the federal and state level as well as to allow for local decision-making consistent with basic precepts of federalism. There are federal tax and securities requirements that will apply, similar to those that apply to conduit tax-exempt financings, and numerous state and local legal and policy considerations. This would be accomplished by making clear that, just as with federally tax-exempt conduit bonds, a state law authorized issuer for these financings is required. The following language provides this result:

“c) AMERICAN INFRASTRUCTURE BOND.—

“(1) IN GENERAL.—For purposes of this section, the term ‘American infrastructure bond’ means any obligation if—

“(A) the interest on such obligation would (but for this section) be excludable from gross income under section 103,

“(B) the obligation is not a private activity bond unless the obligation is a qualified 501(c)(3) bond, and

“(C) the issuer makes an irrevocable election to have this section apply.

Therefore, in order for a bond to be a qualified 501(c)(3) bond excludable from income under section 103, it would need to have a governmental conduit issuer accountable to state and local voters, would need to have the opportunity for local concerns to be raised through a TEFRA hearing, and would need to meet the other requirements for tax exemption. NAHEFFA’s members, government conduit issuers created by state and local law, are accountable to their legislators and executives, including governors, under their respective state constitutions. Local decision making through the local issuer and TEFRA process has long been integral to the issuance of federally tax-exempt conduit bonds. Local decision making in the existing conduit bond sector has worked very well for decades. The same federalist template should also be applied to any new direct subsidy bonds for nonprofits if Congress makes this policy choice.

NAHEFFA applauds Chair Wyden and Ranking Member Crapo for convening this important hearing to discuss funding and financing options for infrastructure, and thanks the Committee for its consideration of our views. On behalf of all of our members, NAHEFFA looks forward to continuing to work with the Chair, the Ranking Member, and all of your congressional colleagues to develop and implement an effective infrastructure plan that our nation so desperately needs.

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*Vice President*

*Infrastructure, Innovation and Human Resources Policy*

June 1, 2021

The Honorable Ron Wyden  
Chairman  
U.S. Senate  
Committee on Finance

The Honorable Mike Crapo  
Ranking Member  
U.S. Senate  
Committee on Finance

219 Dirksen Senate Office Building  
Washington, DC 20510

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Dear Chairman Wyden and Ranking Member Crapo,

The National Association of Manufacturers (NAM), the largest manufacturing association in the United States representing manufacturers in every industrial sector and in all 50 states, appreciates your Committee's leadership and recent efforts to support much-needed infrastructure investment. Manufacturers are particularly appreciative of your committee's work to advance vital infrastructure funding needs. The recent hearing held on May 18, 2021, titled, "Funding and Financing Options to Bolster American Infrastructure" set the stage for next steps to advance broad, bipartisan infrastructure investment legislation this year.

Manufacturers want bold federal action to rebuild and rejuvenate America's aging infrastructure because the benefits and the competitive advantages to be gained from these improvements are well-documented and well-understood by workers, plant managers and other manufacturing leaders. The NAM has long advocated for policies that identify new funding resources for these projects and programs, and for the expansion of federal opportunities that could promote private investment into our nation's roads, bridges, airports, water infrastructure and other physical systems. The NAM's Building to Win plan highlights many of the areas where investment is needed and offers funding options for the Finance Committee to consider as sources of future revenue. The funding proposals in Building to Win would not require new taxes that could lead to diminishing competitiveness for American manufacturers.

We hope that you will continue to review alternative funding options for infrastructure investment and consider reforms to user fee programs that can still successfully generate infrastructure revenue. We note that when tax reform was enacted in 2017, manufacturers responded by hiring more workers, increasing wages and investing more in their business. For example:

- In 2018, manufacturers added 263,000 new jobs. That was the best year for job creation in manufacturing in 21 years.
- In 2018, manufacturing wages increased 3% and continued going up—by 2.8% in 2019 and by 3% in 2020. Those were the fastest rates of annual growth since 2003.
- Manufacturing capital spending grew by 4.5% and 5.7% in 2018 and 2019, respectively.
- Overall, manufacturing production grew 2.7% in 2018, with December 2018 being the best month for manufacturing output since May 2008.

A shift to a less-competitive tax code would reverse these gains and result in significant job losses and great harm to the economy. A recent NAM-commissioned analysis by economists from Rice University found that adopting tax policy changes such as increasing the corporate tax rate to 28% and raising the tax burden on pass-through businesses (which includes many small and medium manufacturers) would cost the United States 1 million jobs in the two years after enactment and result in an average loss of 600,000 jobs each year over the next decade with wages, investment and GDP all declining.

Moreover, additional analysis calculating the effects of raising the corporate tax rate to 25% along with other harmful tax increases shows that these policies would shrink the U.S. economy and cost 1 million jobs in the first two years after implementation, plus a loss of 500,000 jobs on average each year over the next decade. These tax changes would run counter to the productive benefit of renewing federal infrastructure investment for the betterment of the nation.

The recent hearing on the future of American infrastructure investment and serious discussions around alternative financing options instead of tax increases will help support the needed momentum to get infrastructure legislation accomplished this year. Manufacturers are proud of their footprint in American communities, representing millions of American workers and \$2.35T in contributions to the U.S. economy. As the manufacturing industry prospers, so does the nation and infrastructure investment is key to our long-term prosperity. We look forward to continuing to work with you and your colleagues to achieve bold, transformative invest-

ment in our nation's infrastructure and urge you to continue your bipartisan efforts into the weeks ahead.

Sincerely,  
Robyn M. Boerstling

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May 18, 2021

The Honorable Ron Wyden  
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219 Dirksen Senate Building  
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The Honorable Mike Crapo  
Ranking Member  
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RE: Funding and Financing Options to Bolster American Infrastructure  
Chairman Wyden and Ranking Member Crapo,

Since 1973, the Owner-Operator Independent Drivers Association (OOIDA) has been advancing and protecting the rights of small-business motor carriers and professional drivers. OOIDA is a critical stakeholder for all issues affecting trucking, with a unique focus on those directly impacting small-business truckers. We have over 154,000 members, all of whom make their living on America's highways.

Robust investment in our nation's infrastructure is naturally a priority for our members. A modern, reliable, and efficient highway system not only supports their businesses, but also ensures their safety. With the nation's roads and bridges deteriorating and congestion increasing, truckers are willing to contribute more to the expansion and preservation of this system, so long as user fees remain equitable among all highway users. However, they will not accept funding mechanisms that are discriminatory towards our industry.

Due to the vast resources needed to adequately update and maintain our highways, OOIDA supports efforts to increase dedicated highway trust fund (HTF) revenues. Professional drivers continue to favor the current user fee structure and prefer reasonable increases to the federal gasoline and diesel fuel taxes. These user fees are the most equitable and efficient means for supporting our nation's highway needs. We understand many elected officials believe increasing fuel taxes is politically untenable, but this approach remains the most sensible and effective option for funding our infrastructure in the near-term.

Transitioning from the traditional user fee structure to a vehicle miles traveled (VMT) program has recently gained significant attention among lawmakers in Washington. However, truckers have many unanswered questions about the implementation and administration of a national VMT program. Our members, who have experienced excessive operating costs in states that currently levy VMT taxes, also have serious concerns about the equity of a national program. OOIDA is open to further discussion about VMT and other possible alternative HTF funding methods, but any proposed system must be fair and efficient.

Most importantly, any VMT proposal to fix the HTF must not be limited to commercial motor vehicles (CMVs). Truckers already pay more than their fair share into the HTF and any VMT system must not single out truckers. Not only is our industry currently paying more than its fair share, a report by the Congressional Budget Office found HTF revenues derived from motor carriers through the heavy-vehicle and tire taxes will increase from 2019 to 2029.<sup>1</sup> Between the current diesel tax and these supplemental taxes that other highway users do not pay, the trucking industry is estimated to increase its contributions to the HTF over the same period of time.

Implementing a truck-only VMT is also nowhere near as simple as some proponents have claimed. Current law prohibits the use of Electronic Logging Devices (ELDs) for anything other than monitoring hours of service. Furthermore, many trucks are

<sup>1</sup>CBO, Issues and Options for a Tax on Vehicle Miles Traveled by Commercial Trucks (2019).

not required to use ELDs because of either industry or operational exemptions—some put in place by Congress. To implement a truck-only VMT, Congress would need to dramatically increase the mandated use and scope of ELDs.

OOIDA has also consistently opposed any federal expansion of tolling policies. Research has shown that tolling is an extremely wasteful method of funding compared to fuel taxes. Additionally, toll roads consistently fail to meet revenue projections, creating unanticipated funding shortfalls, inevitable rate increases, and traffic diversion to non-tolled routes. As the Committee considers options to fund our highways, it must avoid any expansion of tolling, including congestion pricing.

Congestion pricing would lead to the tolling of existing highways, which amounts to double taxation for truckers who have already paid in to the HTF through the diesel fuel tax and other industry-specific fees. Because truckers often have very little control over their schedules, congestion pricing is also particularly problematic for owner-operators and independent drivers. Due to the rigidity of current federal hours of service requirements, truckers routinely have no other choice than to drive through metropolitan areas during periods of high congestion. Shippers and receivers also have little regard for a driver's schedule, frequently requiring loading and unloading to occur at times when nearby roads are most congested. Additionally, unlike other highway users, truckers often lack the ability to choose alternate routes to avoid congestion due to size and weight restrictions, heavy vehicle prohibitions, and other limitations on ancillary roads.

Congress must recognize that conditions beyond the control of professional drivers, including federal and state rules, often contribute to their inability to avoid areas or times of high congestion. Without changes to these conditions, congestion pricing may have little to no effect on CMVs other than to squeeze even more revenue out of small-business truckers. If Congress takes steps to expand congestion pricing, accommodations must be made for the trucking industry.

We appreciate your interest in exploring funding and financing options to bolster American infrastructure. A modern, reliable, and efficient highway system is critically important to the success and safety of our nation's small-business truckers. We hope the Committee will consider the views of owner-operators and professional drivers when determining how to invest in the roads and bridges where they work.

Thank you,

Todd Spencer  
President and CEO

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THE REAL ESTATE ROUNDTABLE ET AL.

The Nation's commercial real estate industry welcomes the opportunity to provide input on proposals put forward by the Administration to finance infrastructure investment. New investments that seek to rebuild our physical and social infrastructure could greatly improve U.S. competitiveness and create more-inclusive economic opportunities for all Americans. As Congress considers options to pay for these investments, however, we urge policymakers not to erode longstanding tax rules that support job creation, capital formation and productive risk taking. Real estate—which directly supports 13 million jobs in the United States and generates three quarters of local tax revenue—is taxed primarily through the tax code's individual and pass-through provisions. Tax reforms should be undertaken with caution, with a focus foremost on supporting the nascent economic and jobs recovery and the capital investment that will drive our economic growth for years to come.

Several of the tax proposals in the Administration's infrastructure and human capital initiatives, unfortunately, would reduce real estate investment and diminish opportunities for startup businesses and those less advantaged. These proposals include:

- Limiting taxpayers' ability to defer gain that is reinvested in property of a like-kind;
- Doubling the tax rate on long-term capital gains;
- Limiting capital gains treatment to invested cash and disregarding other forms of risk taken by partners; and
- Making death a taxable event at far lower levels of income and potentially taxing the unrealized gain on appreciated assets not once but twice when an individual dies.

Collectively, these proposals will undermine the very goals the Administration seeks to achieve by reducing opportunities and economic rewards for cash-poor business owners. They will undercut the tax base in localities throughout the country that rely on real estate taxes to finance schools, police, and other first responders. Moreover, they will diminish the incentive for private investment of capital in riskier projects, such as affordable housing and redevelopment in struggling communities.

To be clear, our industry supports bold actions to invest in infrastructure needs. The quality of infrastructure is one of the most important factors that influences real estate development decisions. Real estate and infrastructure have a synergistic, two-way relationship as growth in one of these asset classes spurs growth in the other. Safe and reliable infrastructure enhances the value of the properties it serves. A holistic approach to expand and modernize our aging infrastructure and increase the supply of affordable housing will create well-paying American jobs, help address climate threats, and improve the quality of life in all regions of the country.

We agree on the importance of developing revenue streams that can sustain the highway trust fund, the nation's main funding source for roads, bridges, and mass transit, for the long term. At the same time, taxpayers alone cannot foot the entire bill for all of the country's infrastructure needs. Policies that encourage appropriate public-private partnerships (P3s) can unleash private investment, improve budget certainty, accelerate project delivery, and achieve greater efficiencies and innovations in project design and construction. Policies to encourage P3 deployment for infrastructure include restoring the federal tax exemption for certain state and local construction incentives (section 118); streamlining and improving the underwriting process for low-interest TIFIA loans; and raising the federal "volume cap" on private activity bonds issued by state and local governments for surface transportation. We recommend that Congress updates the real estate investment trust (REIT) rules to allow REITs to invest in and operate more types of infrastructure investments, including renewable energy. We also recommend modernizing outdated tax rules, such as the Foreign Investment in Real Property Tax Act, that prevent U.S. businesses from partnering with sources of foreign capital for infrastructure investments. Policymakers can help mobilize private capital to increase the supply of affordable housing by: enacting incentives for states and localities to streamline permitting and regulatory processes that discourage development and rehabilitation efforts, enhancing the low-income housing tax credit (LIHTC), and establishing a middle income housing tax credit (MIHTC). Additionally, Congress should consider potential tax incentives to spur reinvestment in properties so they can be repositioned for the most productive use in their communities.

As the Committee examines how best to finance these long-term needs, however, we encourage you to carefully consider both the current state of the real economy, as well as the role that tax provisions serve in promoting long-term investment and encouraging the private sector to put capital at risk. Many businesses and communities are still straining to emerge from the COVID-19 pandemic. In the case of real estate, throughout the pandemic, property owners, managers, investors and lenders have focused on mitigating the impact of the crisis on their residential and business tenants. The industry has: (a) restructured leases with tenants under stress; (b) advocated for federal rental and other assistance; (c) helped educate tenants on how to access relief; (d) encouraged much needed troubled-debt restructuring relief that allowed lenders to provide borrowers with mortgage relief; and (e) implemented new building protocols, invested in health-related improvements (ventilation systems, etc.), and issued detailed guidance to ensure a safe building reentry process. Real estate lenders and owners have undertaken these actions at the same time that they have had to call in lines of credit, use their reserves, cut their personal and employee compensation, provide mortgage relief, and restructure debt.

Today, major questions and challenges remain for America's commercial real estate. What will the demand for retail space be in the future? Will more individuals work from home and will employers shrink their office needs? Has the pandemic permanently changed the need for business travel, and what are the implications for urban hotels? Will apartment property owners be forced to write off substantial portions of rental arrearages due to protracted eviction moratoriums and overly burdensome state and local requirements that impede access to emergency rental assistance funds? Will lenders be required to write down loans, reposition properties, or provide further relief to borrowers.

It is with this backdrop and context squarely in mind that policymakers should evaluate any new and potentially disruptive tax increases. Tax changes often have



unintended consequences—the commercial real estate depression and economic recession that followed the Tax Reform Act of 1986 is a clear case in point. Well-intended provisions went too far and led to an exodus of capital from real estate markets, which reduced property values and threatened the solvency of real estate lenders. Optimism regarding the underlying economy is clearly rising throughout the country, and policymakers should tread carefully to avoid suffocating the nascent recovery and job boom with anti-growth tax increases that discourage risk taking, investment, and capital formation.

Below are specific comments regarding certain individual and pass-through tax proposals in President Biden's American Families Plan.

**Limiting businesses' ability to defer gain reinvested in property of a like kind**

Since 1921, the tax code has recognized that it is appropriate to defer capital gain when real property used in a trade or business, or held for investment, is exchanged for another property of a like kind. The American Families Plan proposes to limit the deferral of gains greater than \$500,000. Seeking to raise revenue or modify the distribution of the tax burden by putting a cap on like-kind exchanges would be counterproductive to the Administration's own stated goals. It would eliminate an engine of job creation, reduce state and local taxes, and create new headwinds for the economic recovery. The proposed cap would remove a ladder of economic opportunity for small and minority-owned businesses, reduce the supply of affordable housing, and undercut the environmental conservation of land and resources.

In short, like-kind exchanges, now codified under section 1031, should be preserved in their entirety without new limitations.

The rules for like-kind exchanges are narrowly tailored and well-designed. Over the last four decades, Congress has thoughtfully modified and improved section 1031. Since 1984, laws have eliminated potential abuses, created strict and uniform rules and procedures for an exchange, and tightened section 1031 to avoid unintended results. As a result of these efforts, like-kind exchanges are now a deeply ingrained and beneficial feature of commercial real estate markets. Research by Professors David Ling (Univ. Fla.) and Milena Petrova (Syracuse U.) estimates that 10 percent to 20 percent of commercial real estate transactions involve a like-kind exchange.

Like-kind exchanges are an engine of job creation. Research by EY estimates that like-kind exchanges support 568,000 jobs generating over \$55 billion of annual value added, including \$27.5 billion of labor income. Employment directly and indirectly supported by exchanges includes jobs for skilled tradesmen, architects, designers, building material suppliers, movers, building maintenance and cleaning staff, security, landscapers, qualified intermediaries, real estate brokers, title insurers, settlement agents, attorneys, accountants, lenders, property inspectors, appraisers, surveyors, insurers, and contractors. By encouraging the reinvestment of capital and stimulating property improvements, exchanges create a more dynamic, job-creating real estate market.

Like-kind exchanges help small and minority-owned businesses expand and grow. Veteran-owned, women-owned, and minority-owned businesses use like-kind exchanges to expand and build equity in their companies without having to rely on bank loans and other third-party lending that can be difficult to obtain. Small firms and entrepreneurs lack access to the deep capital markets that finance the activities of large corporations. Like-kind exchanges help small and minority-owned businesses grow organically, without overreliance on unsustainable levels of debt and leverage. Because owners are able to reinvest their proceeds on a tax-deferred basis, properties acquired in a like-kind exchange carry less overall debt—30 percent less than similar real estate acquired outside of a like-kind exchange.

Increasing the supply of affordable rental housing requires like-kind exchanges. Like-kind exchanges can fill gaps in the housing supply not covered by other incentives for the development of affordable housing. Multifamily housing transactions represent nearly 40 percent of the dollar volume of like-kind exchanges. Expanding workforce housing will require significant investment of private capital. However, tax incentives like the low-income housing tax credit do not apply to land acquisition costs. Investors can use section 1031 to acquire land for the development of new housing. New limits on like-kind exchanges would increase the cost of rental housing, meaning owners would have to raise rents significantly on tenants to offset the tax consequences of repealing section 1031.

Like-kind exchanges promote land conservation and environmental protection. Land conservation organizations rely on like-kind exchanges to preserve open spaces for public use or environmental protection. Land conservation transactions often involve the exchange of environmentally sensitive areas for other less-sensitive privately held property, which can be put into production. These transactions protect environmentally significant land and open space for the future while enabling private landowners to preserve capital for expansion or diversification of existing operations, retirement, or other needs.

States and localities depend on like-kind exchanges for tax revenue. The more frequent turnover of real estate attributable to section 1031 generates property transfer and recording fees, as well as property reassessments that increase the tax base. Significantly, because of lower debt and greater capital investment rates, the taxes paid on the subsequent sale of these properties are appreciably greater.

Real estate businesses that engage in a like-kind exchange begin repaying the federal government for the tax deferral benefit on day one. Real estate owners typically pay some federal tax at the time of the exchange due to differences in the value of the relinquished property and replacement property (“boot”). In addition, the basis of the relinquished property is carried over and reduces the taxpayer’s basis in the replacement property. The result in smaller depreciation deductions on the property—these reduced depreciation deductions are less than the actual rate of economic depreciation for the asset.

Perhaps most importantly, like-kind exchanges are accelerating the economic recovery from the pandemic by preventing real properties from languishing, underutilized and underinvested. Like-kind exchanges helped stabilize commercial real estate markets during the COVID–19-induced economic crisis, and they will continue to do so in its aftermath. During periods of economic stress, exchanges stimulate commerce and facilitate needed price discovery when buyers, sellers, or lenders are otherwise reluctant to engage in market transactions. By allowing property owners to defer capital gain when one property is exchanged for another, like-kind exchanges help get real estate into the hands of new owners with the time, resources, and desire to restore and improve them. This is particularly critical given the need to repurpose or renovate many properties, particularly in the office, retail and hotel sectors, to meet post-pandemic needs.

#### **Doubling the long-term capital gains tax rate**

In 105 of the 108 years since Congress created the modern federal income tax, the United States has taxed long-term capital gains at a lower rate than ordinary income. The only exception was a brief three-year period following enactment of the Tax Reform Act of 1986. The American Families Plan proposes to raise the top long-term capital gains rate to 39.6 percent, establishing parity with the proposed top tax rate on ordinary income. Including the 3.8 percent net investment income tax pushes the tax rate on investments to 43.4 percent. If successful, the rate would be over 40 percent higher than it was the last time there was tax parity between ordinary income and capital gains at a rate of 28 percent. Policymakers should preserve a meaningful, reduced tax rate on long-term capital gains income.

The return on risk capital is a demonstrably different type of income than wages and other forms of guaranteed compensation. Treating the return on risk taking the same as salary income, or the same as the interest payment on a government bond, would undermine a fundamental tenet of the American economic system. The United States values, celebrates, and rewards people who take chances and risks, embrace opportunities, create new businesses, and aspire to achieve great economic accomplishments that advance our Nation’s collective well-being.

On a macroeconomic level, the lower tax rate on capital income reduces the cost of capital, drives patient, long-term investment, and encourages productive entrepreneurial activity. In the case of real estate, the reduced tax rate on capital gains partially offsets the higher risk associated with illiquid, capital-intensive projects.

A low tax burden on capital can help draw investment from around the world, increase the productivity of the American workforce, and improve U.S. competitiveness. Relative to our peers, the United States levies a heavy tax burden on capital income. According to the Tax Foundation, 30 of the 36 developed countries in the OECD have a lower maximum tax rate on individual capital gain than the United States.

Congress should be taking steps to encourage and reward risk-taking and investment—particularly in communities where it is most needed—not punishing it. Opportunity Zones, for example, were created just a few years ago and have mobilized

\$85 billion in new investment in low-income communities. The capital is being deployed to create new and vibrant commercial centers, rental housing, office space and job opportunities for local residents. The entire premise of the Opportunity Zone idea is that those taking the risk will be rewarded with a lower capital gains tax. The popularity of Opportunity Zones is clear and convincing evidence that real estate capital responds to incentives related to capital income.

Many of our country's great cities are facing significant challenges. They have aging infrastructures that can only be regenerated with a sustained infusion of capital investment. Public spending alone will be insufficient. Real and sustainable infrastructure modernization is going to require partnering with the private sector and private capital. If policymakers raise taxes on capital income, it is going to make it much harder to attract the private investment we need to rebuild our urban centers.

The return on risk capital differs in meaningful ways from wage compensation. The entrepreneur who foregoes a traditional job with a salary in favor of starting a business and building a capital asset forfeits most protections and benefits offered to employees. These benefits include nontaxable employer-provided health care, tax-favored and employer-provided retirement contributions, workers compensation, the accumulation of Social Security benefits, and most importantly the comfort and security of a pre-negotiated salary. The entrepreneur, in contrast, enjoys none of these benefits, just risk, uncertainty, and the potential of a complete loss on the investment of their time and capital. The reduced tax rate on capital gains only partially offsets the many advantages that favor the salaried employee.

Two structural features of the tax code further penalize risk capital over wages. First, a significant share of long-term capital gains liability does not relate to actual economic income, but rather reflects the effects of inflation. For example, assuming an asset is purchased for \$100 and sold five years later for \$110, but inflation rises 15 percent during the same five-year period, the taxpayer has actually lost money on his or her investment. He or she would need \$115 just to maintain their original purchasing power. Nonetheless, the taxpayer will still owe capital gains tax in year five on the \$10 of nominal appreciation. The individual is paying tax on "non-economic" income. The capital gains preference partially offsets this unfair taxation of noneconomic income that otherwise results. Second, unlike ordinary losses, such as casualty or net operating business losses, losses on capital assets are generally nondeductible and must be carried forward to future years (with a small \$3,000 exception). In other words, the government collects tax immediately on capital gains, but does not allow taxpayers to apply their capital losses against their ordinary income. It is unclear whether taxpayers would be able to deduct their capital losses against their ordinary income in a system with rate parity.

#### **Limiting capital gains treatment to invested cash and disregarding other forms of risk taken by partners**

The American Families Plan calls on Congress to permanently change the tax treatment of carried interest, presumably by treating all carried interest as ordinary income and subjecting it to self-employment taxes. If enacted, the proposal would result in a huge, retroactive tax increase on countless Americans who use partnerships in businesses of all types and sizes. It would discourage individuals from pursuing their business vision, encourage debt rather than equity financing, tax sweat equity invested in businesses, and slow economic growth. The proposal would limit capital gains treatment to invested cash, creating additional economic barriers for cash-poor entrepreneurs, and it would reduce the propensity to take on projects with the greatest risk, such as affordable housing and new commercial developments in struggling neighborhoods. Policymakers should preserve the current and long-standing tax treatment of carried interest.

A carried interest is the interest in partnership profits a general partner receives from the investing partners for managing the investment and taking on the entrepreneurial risk of the venture. Carried interest may be taxed as ordinary income or capital gain depending on the character of the income generated by the partnership. The carried interest is not compensation for services. General partners receive fees for routine services like leasing and property management. Those fees are taxed at ordinary tax rates. The carried interest is granted for the value the general partner adds to the venture beyond routine services, such as business acumen, experience, and relationships. It is also recognition of the risks the general partner takes with respect to the general partnership's liabilities. These risks can include funding predevelopment costs, guaranteeing construction budgets and financing, and exposure to potential litigation over countless possibilities.

In the Tax Cuts and Jobs Act of 2017, Congress created a three-year holding period requirement for carried interest to qualify for the reduced long-term capital gains rate.

Taxing all carried interest as ordinary income would limit capital gain treatment only to taxpayers who have cash to invest. Those who invest entrepreneurial innovation, risk taking, and sweat equity would no longer receive capital gain treatment. This would reduce economic mobility by increasing the tax burden on less-advantaged entrepreneurs who want to retain an ownership interest in their business. Perversely, the proposal would encourage real estate owners to borrow more money to avoid taking on equity partners.

The American Families Plan asserts the change is needed “so that hedge fund partners will pay ordinary income tax rates on their income just like every other worker.” The proposal reinforces the false narrative surrounding the carried interest issue—that it targets only a handful of hedge fund billionaires and Wall Street executives. The carried interest legislation is far broader and would apply to real estate partnerships of all sizes—from two friends owning and leasing a townhome to a large private real estate fund with institutional investors. The reality is that the majority of carried interest is likely earned by general partners in the nation’s two million real estate partnerships.

Eliminating capital gains treatment for carried interest would have profound unintended consequences for main streets of cities all across our country. A 2013 study by Douglas Holtz-Eakin, former director of the nonpartisan Congressional Budget Office, found that carried interest legislation could result in reduced construction activity, lower property values, and decreased wages in the real estate industry.

The main carried interest legislative proposal, the Carried Interest Fairness Act, would apply retroactively to transactions after December 31, 2020—unfairly raising taxes on sales that have already occurred. Moreover, the legislation would capture and apply to partnership agreements executed years—often decades—earlier. These negotiated agreements between the partners were based on well-established tax law as it existed at the time. By changing the tax results years later, the bill would undermine the predictability of the tax system and discourages the long-term, patient investment that moves our economy forward.

#### **Taxing the unrealized gain on appreciated assets not once but twice when an individual dies**

The American Families Plan proposes to tax unrealized capital gains at death. The plan would exclude up to \$2.5 million per couple when part of the unrealized gain is attributable to a principal residence. Additional, undefined rules would defer taxes to protect heirs who continue to run family-owned businesses and farms.

The proposal would have extremely negative, unintended consequences for taxpayers, the real estate industry, and the economy. The tax system already levies a tax on appreciated gains when an individual dies through the estate tax. The estate tax has an economic effect similar to imposing income tax on appreciated gains at death—it actually reaches further than potential income tax liability by applying the tax to both the appreciated amount and the underlying, adjusted basis of an asset. The President’s proposal would double-tax appreciated gains that exceed the estate tax exemption amount.

Two principles should guide any change to the taxation of assets at death. First, stepped-up basis should continue to apply to family-owned businesses, particularly when the gains relate to highly illiquid assets like real estate where the burden of the tax otherwise could force the dismantling of a family’s livelihood. Second, policymakers should avoid imposing two layers of tax on the same income. Unrealized gains should not be subject to both income tax and estate tax at death.

**Effect on Taxpayers.** At the taxpayer level, death would become a taxable event at \$1.25 million for single filers with a primary residence (assuming there is at least \$250,000 of unrealized gain in the home) and at \$2.5 million for married taxpayers with a primary residence (if there is at least \$500,000 of gain in the home). Contrast this to the far higher asset levels (\$11.7 million for single filers and \$23.4 million for married filers) at which the estate tax is currently imposed. The last year estate taxes were imposed at an asset level of less than \$1.25 million for a single filer or \$2.5 million for a married filer was 2003. There is little reason to make death a taxable event at the lower asset levels contemplated by the American Families Plan.

The American Families Plan also includes a proposal to nearly double the capital gains tax rate for those with income above \$1 million per year. When combined with

the net investment income tax of 3.8 percent, which the Plan also proposes to apply to more taxpayers, the top rate would be 43.4 percent, not including any state tax.

In the case of taxpayers subject to the taxation of unrealized gains at death and the estate tax, the combined marginal tax rate would rise from the top current law estate tax rate of 40 percent to 66.04 percent (provided the tax on unrealized capital gains is deductible from the estate tax). The last time estates were taxed at such high levels was 1981.

**Effect on Real Estate Industry.** By making death a taxable event at far lower asset levels than under current law, the American Families Plan potentially imposes capital gains tax before an asset is actually sold by the heir. This is a reversal of a tax policy principle that dates to the beginning of the modern Internal Revenue Code. If tax on unrealized gains is imposed on the decedent's estate, many estates will likely not have the cash to pay the tax due. This could force an estate to sell the property the decedent desired to be left to an heir just to pay the tax. In some cases, if a partnership interest is inherited representing a property interest, such a sale may not even be possible without the consent of other partners. Even if the funds to pay the tax are available, little might be left over to improve and upgrade the property. This could have negative consequences for many commercial real estate assets, including apartments and affordable rental housing, office buildings, and shopping centers. The bottom line is that property owners should decide when it is the right time to sell, not the government.

Consider the following example to illustrate this point: Joe, a single individual, purchased an apartment building with 150 units in 1995 for \$5 million before passing away in 2022, leaving the property to his nephew, Bryan. At the time of Joe's death, the property is worth \$15 million and, due to depreciation of \$6 million and improvements of \$2 million, has a tax basis of \$1 million. The property has annual operating net income of \$1.05 million. Assume this is the only capital asset in Joe's estate. However, Joe also has unrelated debts of \$5 million.

Under current law, when Bryan inherits the apartment building, the \$1 million in tax basis would be stepped-up to \$15 million. Tax would only be imposed when Bryan sells the asset and would be based on the difference between the value of the property at time of sale and the \$15 million in tax basis (plus any post-inheritance adjustments).

Under the proposal, a capital gain of \$13 million would be recognized, presumably by Joe's estate. (This is calculated as \$15 million in fair market value, less \$1 million in basis, less a \$1 million exclusion). The taxpayer would face a sizable tax liability that depends on the capital gains rate (two assumptions are presented given that Congress could choose to consider proposals in the American Families Plan on an individual basis):

- **Assumption 1: Present-Law Capital Gains Rate:** Under current law, the maximum rate on capital gains is 20 percent. Thus, Joe's estate would face a tax of \$2.9 million assuming a capital gains rate of 20 percent, which would exceed the annual operating income of the underlying property by \$1.85 million. (This is calculated as  $.20$  (capital gains tax rate under present law for taxpayers managing an active trade or business)  $\times$  \$7 million plus  $.25$  (depreciation recapture tax rate)  $\times$  \$6 million.)
- **Assumption 2: Capital Gains Taxed at Top Ordinary Income Tax Rate:** Under the American Families Plan, the maximum rate on capital gains would rise to 39.6 percent. Joe's estate would be subject to this increased tax rate given that the net income of his multifamily property exceeds \$1 million. Under this scenario, Joe's estate would face a tax of \$5.148 million, which would exceed the annual operating income of the underlying property by \$4.098 million. (This is calculated as  $.396$  (capital gains tax rate under the American Families Plan for taxpayers managing an active trade or business)  $\times$  \$13 million (depreciation recapture is assumed to be taxed at 39.6 percent)). Finally, should Congress choose to apply the 3.8 net investment income tax to active capital gains, Joe's estate could instead be subject to a tax of \$5.642 million, which would exceed the annual operating income of the underlying property by \$4.592 million. The American Families Plan alludes to imposing the current-law 3.8 percent Medicare tax "consistently to those making over \$400,000," but the exact extent of this proposal is unclear.

These examples illustrate that Joe's estate would face a tax increase of at least \$2.9 million if the capital gains tax rate remains unchanged and as much as \$5.148 million if the capital gains tax rate increases to 39.6 percent. Both amounts far exceed

the annual operating income of the underlying asset, likely forcing its sale just to pay the tax. Even if Bryan had the necessary funds available, far less money would be available to upgrade and improve the property.

The American Families Plan contemplates enabling family-owned businesses to defer the payment of tax until an inherited asset is sold. This approach is also problematic. An heir could inherit a property with little or no basis and sizeable debt. If it is subsequently sold, the heir will face significant depreciation recapture and capital gains taxes. This would discourage heirs from investing further capital to maintain it. Ultimately, housing and especially affordable housing, office buildings, and shopping centers will languish, underinvested and unimproved, eventually becoming obsolescent and unproductive. Moreover, the proposal does not address situations where the heir may wish to diversify into other business assets or when there are multiple heirs who wish to go separate ways with their businesses.

**Effect on the Economy:** On a macroeconomic level, an April 2021 EY study prepared for the Family Business Estate Tax Coalition estimates that imposing tax on transferred assets at death would cost 80,000 jobs in each of the first 10 years and 100,000 jobs each year thereafter. Gross Domestic Product relative to the U.S. economy would also fall by \$10 billion annually and \$100 billion over 10 years. Workers' wages would decline by \$32 for every \$100 collected in tax.

Taxing capital gains at death would pull long-term capital investment out of the economy at a time when it is most needed. Even more so than many industries, commercial real estate has been hard hit by the pandemic. Structural changes are underway related to how retail, hospitality, and office space is used. In the next few years, buildings throughout the country will need to be reimagined, repurposed, and converted to a new use. This is going to demand extraordinary amounts of new capital. Yet this proposal pulls capital out of private real estate markets just at the moment when we should be mobilizing capital and investment for future needs.

The American Jobs Plan and American Families Plan offer credible initiatives to address many of our Nation's most pressing needs, such as a modernized infrastructure, a more comprehensive approach to climate-related matters, and increased investments in housing, education, and childcare. We support aggressive steps to finance infrastructure needs, increase the supply of affordable housing, expand the economy, and promote job growth. Regrettably, some of the tax proposals accompanying the plans would reduce economic activity and opportunities and be completely counterproductive to the goals of the President's initiatives. As this process moves forward, we will continue to share our data, research, and recommendations with you to advance sound tax policy that is fair, productive and provides equal opportunities for all Americans.

Sincerely,

The Real Estate Roundtable  
 American Hotel & Lodging Association  
 American Resort Development Association  
 American Seniors Housing Association  
 Building Owners and Managers Association (BOMA) International  
 CCIM Institute  
 CRE Finance Council  
 Institute of Real Estate Management  
 International Council of Shopping Centers  
 Manufactured Housing Institute  
 Mortgage Bankers Association  
 NAIOP, Commercial Real Estate Development Association  
 National Apartment Association  
 National Association of Home Builders  
 NATIONAL ASSOCIATION OF REALTORS®  
 National Multifamily Housing Council  
 REALTORS® Land Institute

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The Reinsurance Association of America (RAA) appreciates Chairman Ron Wyden, Ranking Member Mike Crapo, and other Committee on Finance (Committee) members' interest in the U.S. property casualty (re)insurance industry. Thank you for holding today's hearing entitled, "Funding and Financing Options to Bolster American Infrastructure."

The RAA is the leading trade association of property and casualty reinsurers doing business in the United States. RAA membership is diverse, including reinsurance underwriters and intermediaries licensed in the U.S. and those that conduct business on a cross border basis. The RAA also has life reinsurance affiliates and insurance-linked securities fund managers and market participants that are engaged in the assumption of property/casualty risks. The RAA represents its members before state, federal and international bodies.

The RAA supports improving America's community resilience in the face of climate and natural disaster risks. We specifically recommend that infrastructure legislation establish Community Disaster Resilience Zones (CDRZ) and direct public and private sector resources to help improve infrastructure resilience, including housing resilience, for CDRZ communities that are the most in need and most at risk of natural disaster(s). Our CDRZ proposal is described in more detail below.

#### **Climate Change and Natural Disaster Risks**

The RAA has had a longstanding policy on climate change and is committed to working with policymakers, regulators, and the scientific, academic and business communities to assist in promoting awareness and understanding of the risks associated with climate change. A copy of RAA's policy can be found on our website.<sup>1</sup> It is especially critical that at the federal, state, and local levels, the public sector in partnership with the private sector address significant natural disaster risks well in advance of the next significant flood, earthquake, or other devastating natural disaster event. Addressing these risks urgently is particularly important as the frequency, severity, devastation, and costs of many natural disasters continue to increase due to climate change.

In the financial services sector, property casualty insurers are the most exposed to natural disasters, especially those impacted by climate and weather. Within the insurance sector, reinsurers have the greatest financial stake in appropriate risk assessment. The industry is at great financial risk if it does not understand global and regional climate impacts, variability and developing scientific assessment of a changing climate. Integrating this information into the insurance system is an essential function. Insurance is a critical component for economic and social recovery from the effects of extreme weather and climate driven events. Open market insurance pricing is also a mechanism for conveying the consequences of decisions about where and how we build and where people chose to live. In this regard, it must be proactive and forward looking in a changing climate/weather environment.

Our industry is science based. Blending the actuarial sciences with the natural sciences is critical to providing the public with the financial resources needed to recover from natural catastrophic events. As the scientific community's knowledge of climate change continues to develop, it is important for our communities to incorporate that information into the exposure and risk assessment process and that it be conveyed to stakeholders, policyholders, the public and public officials that can or should address adaptation and mitigation alternatives. Developing an understanding about climate and its impact on various risks—for example, droughts, heat waves, the frequency and intensity of tropical hurricanes, thunderstorms and convective events, rising sea levels and storm surge, more extreme precipitation events and flooding—is critical to our role in translating the interdependencies of weather, climate risk assessment and pricing.

Climate-related and natural disaster risk exposure is broad-ranging. These risks are widespread, geographically diverse, and include a range of natural disaster perils impacting homeowners and renters, property owners, servicers, mortgage investors, taxpayers, and communities. It is important to ensure that these risk exposures are addressed and mitigated. Mitigation includes physical enhancements and insurance

<sup>1</sup>[https://www.reinsurance.org/Advocacy/RAA\\_Policy\\_Statements/](https://www.reinsurance.org/Advocacy/RAA_Policy_Statements/).

to better protect residential properties and other infrastructure against damage caused by natural disasters. For government programs, government-sponsored enterprises, private sector financial institutions, and taxpayers, financial mitigation also is important to protect against any mortgage credit default risk associated with natural disaster risk.

The RAA believes a variety of solutions should be used to improve community resilience to the benefit of all those in the value chain of climate and natural disaster risk exposure. The RAA also believes that it is important to address geographic, natural disaster peril, and socioeconomic diversity. Some traditional solutions, like property insurance protections for homeowners certainly can and should be utilized, but new analytical capabilities that increasingly and intelligently can help reduce risk and direct resources to achieving that goal also should be pursued.

### **Investing in Resilience for America's Communities is Critical, Logical, and Smart**

In December 2019, the National Institute of Building Sciences issued its “Natural Hazard Mitigation Saves” report, which was funded by the U.S. Department of Housing and Urban Development.<sup>2</sup> The report describes that federal disaster mitigation has saved \$6 for every \$1 invested since 1995 and other mitigation-related activities, such as updating building codes to ensure resilient structures, and investments can save between \$4 and \$11 for every \$1 spent. According to NOAA, “Each state has been affected by at least \$1 billion-dollar disaster since 1980.”<sup>3</sup> There is demand, but the supply is inadequate.

Reducing the impact of climate and natural disaster risk in the first place, followed by other protections like traditional insurance and risk transfer, particularly to benefit low-income and minority homeowners and renters should be the top public and private-sector priority for climate and natural disaster resilience and risk management. That can be achieved by, first, identifying the communities that are most in need and most at risk of significant natural disasters. And second, it can be achieved by creating statutory and regulatory structures and incentives that direct public and private sector investments in infrastructure resilience.

This Committee and other committees in Congress are considering ideas to direct more public and private sector funds toward infrastructure resilience, which includes housing, in this way. The Federal Emergency Management Agency’s (FEMA) Building Resilient Infrastructure and Communities (BRIC) program, U.S. Department of Housing and Urban Development housing programs, the U.S. Department of the Treasury’s Capital Magnet Fund, and other federal programs should direct funding resources toward achieving housing climate and natural disaster resilience for “extremely low- and very low-income households” that face significant natural disaster risk and particularly that expose taxpayer-backed federal housing programs to climate and natural disaster risks.<sup>4</sup> In general, RAA recommends that the Financial Stability Oversight Council (FSOC) and all of its members prioritize climate and natural disaster resilience efforts for federally funded and federally-backed residential properties in these most in need and most at risk areas.

### **The RAA’s Community Disaster Resilience Proposal**

Low-income and minority neighborhoods are disproportionately impacted by natural disasters.<sup>5</sup> This fact should be a priority consideration for policymakers and the public and private sectors as we work to understand and address the climate and natural disaster-related risks facing communities across America. The RAA has developed an innovative approach to addressing climate and natural disaster resilience, specifically to improve infrastructure resilience in the face of natural disasters and address socio-economic disparities. The RAA urges Congress to include our proposal as part of the infrastructure legislation and other legislation that may be under consideration by this Committee and other committees in Congress.

The RAA developed an analytical tool and legislative proposal that aligns with the President’s plan<sup>6</sup> and congressional interests to rebuild America’s infrastructure,

<sup>2</sup> <https://www.nibs.org/projects/natural-hazard-mitigation-saves-2019-report>.

<sup>3</sup> <https://www.climate.gov/news-features/blogs/beyond-data/2010-2019-landmark-decade-us-billion-dollar-weather-and-climate>.

<sup>4</sup> <https://www.hudexchange.info/programs/htf/>; <https://www.cdfifund.gov/programs-training/programs/cmf>.

<sup>5</sup> <https://www.americanprogress.org/wp-content/uploads/2013/08/LowIncomeResilience-2.pdf>.

<sup>6</sup> <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/31/fact-sheet-the-american-jobs-plan/>.



enable green initiatives and smart building to address the impact of climate change, create needed jobs and fuel the economic recovery, support historically underserved communities where the need is often greatest, and provide sources of much-needed resilience project funding to states and localities. The RAA's data analytics tool utilizes publicly available data to very clearly, by county, congressional district, and census tract in each state, understand where natural perils, older housing stock, and disadvantaged populations converge. The data in RAA's analytical tool is from FEMA's National Risk Index (NRI) supplemented with data from the U.S. Census Bureau's American Community Survey (ACS). We urge policymakers to use the same information, particularly to understand the U.S. landscape and pinpoint and prioritize communities that are most in need and most at risk of significant natural disasters, diversified by state, congressional district, and natural disaster peril.<sup>7</sup>

Appendix A of this statement includes examples from RAA's tool, visualizing how FEMA's NRI and data from the Census Bureau's ACS can be used to understand vulnerability and risk for the:

- State of Oregon, represented by Chairman Wyden; and
- State of Idaho, represented by Ranking Member Crapo.

In general, the RAA's proposal would create a federal structure that directs public and private-sector funding for resilience projects to communities most in need and most at risk from significant natural disaster(s). More specifically, it would:

- (1) Address the impact of climate change through data-driven analysis;
- (2) Establish community disaster resilience zones, or CDRZ, for communities most in need and most at risk of significant natural disaster(s); and
- (3) Direct and incentivize public and private-sector investment in the CDRZ to improve infrastructure resilience.

RAA's legislative proposal has a few core components to help achieve these objectives:

- I. The first generally would codify, enhance, and utilize the FEMA's NRI data to find the intersection of risk, vulnerability, and low community resilience scores, as the basis to identify and establish the CDRZ that reflect diversity among the states by geography and type of peril, such as fire storm/wildfire, tornado, hurricane, flooding, ice storms, earthquake, wind, hail, and drought.
- II. The second would, within CDRZ, coalesce a variety of funding mechanisms, providing a menu of financing enhancements and tax incentives that can focus federal, state, local, charitable, and private-sector investment in resilience projects. For example, to help fund resilience projects in CDRZ the proposal would establish:
  - CDRZ **taxable direct pay bonds**, like Recovery Zone Economic Development Bonds, which were one of three types of Build America Bonds that Congress created in 2009 as part of financial crisis economic recovery legislation;
  - CDRZ **tax-exempt facility private activity bonds** subject to a separate volume cap, like Recovery Zone Facility Bonds (also in the 2009 recovery legislation), and provide for life and property/casualty insurers' exclusion from proration for investments in these CDRZ bonds;
  - Federal **transferrable tax credits for individuals** for resilience improvements to housing in CDRZ;
  - Federal **tax credits for charitable contributions** for resilience projects in CDRZ; and
  - Federal tax credits for community-level projects in CDRZ that are tradeable, transferrable, and do not expire, and allow proceeds from the sale of certified tax credits to be used to, for example, meet matching requirements for federally funded resilience projects.
- III. The third would prioritize, set aside, and unlock federal program funding to invest in resilience projects in CDRZ. This could include waiving, reducing, or allowing other forms of financing, such as the proceeds from the sale of tax credits mentioned above and in-kind and charitable donations, to qualify for matching funds for resilience projects in CDRZ. Allowing a variety of resources to con-

<sup>7</sup> <https://hazards.geoplatform.gov/portal/apps/MapSeries/index.html?appid=ddf915a24fb24dc8863eed96bc3345f8>; <https://www.census.gov/programs-surveys/acs>.

tribute to and invest in resilience projects in CDRZ, as they relate to federal program matching fund requirements, could significantly unlock resources for CDRZ resilience projects. For example, with more flexibility to meet matching fund requirements, CDRZ resilience projects could more likely benefit from FEMA’s BRIC program funding and funding from other programs that fall under the jurisdiction of this Committee.

In addition, the RAA’s proposal has been favorably mentioned during three recent congressional hearings:

- May 19, 2021, House Committee on Ways and Means hearing on “Leveraging the Tax Code for Infrastructure Investment,” during which the proposal was mentioned by Congresswoman Gwen Moore;<sup>8</sup>
- May 18, 2021, Senate Committee on Banking, Housing, and Urban Affairs hearing on, “Reauthorization of the National Flood Insurance Program, Part I,” during which the witness representing The Pew Charitable Trusts mentioned the proposal specifically, and witnesses representing Taxpayers for Common Sense and the Association of State Floodplain Managers mentioned it in concept;<sup>9</sup> and
- March 18, 2021, House Transportation and Infrastructure Subcommittee on Economic Development, Public Buildings, and Emergency Management hearing on “Building Smarter: The Benefits of Investing in Resilience and Mitigation,” in which the proposal was mentioned by witnesses representing the Insurance Institute for Business and Home Safety and The Pew Charitable Trusts.<sup>10</sup>

### **Housing is Infrastructure**

Congress also has an important leadership role to play in prioritizing and directing federal program funding toward housing resilience. Housing, especially affordable housing, that can withstand the most significant disaster(s) that communities across the country face is an investment in critical infrastructure. To that end, the RAA supports language that House Financial Services Committee Chairwoman Maxine Waters included in her “Housing is Infrastructure Act of 2021” discussion draft legislation that was noticed by the House Financial Services Committee for its April 14, 2021, legislative hearing that: prioritizes applications for the \$70 Billion authorized for public housing that include “climate and natural disaster resilience and water and energy efficiency” plans and authorizes nearly \$17 billion for “climate and natural disaster resilience and water and energy efficiency” for each of eleven federally funded housing programs. The discussion draft also prioritizes public housing applications and sets aside federal grant funds for housing in areas of persistent poverty.<sup>11</sup> The RAA is continuing to work on this and other legislation that committees may consider as part of the forthcoming infrastructure package so that it most impactfully can help communities that are most in need and most at risk of natural disaster(s) to become more resilient.

### **Conclusion**

The RAA looks forward to continuing to work with Chairman Wyden, Ranking Member Crapo, and other members of the Committee on legislation to improve America’s housing and community resilience in the face of climate and natural disaster risks by prioritizing and directing public and private sector resources to communities that are the most in need and most at risk of natural disaster(s). Thank you for your consideration of our recommendations.

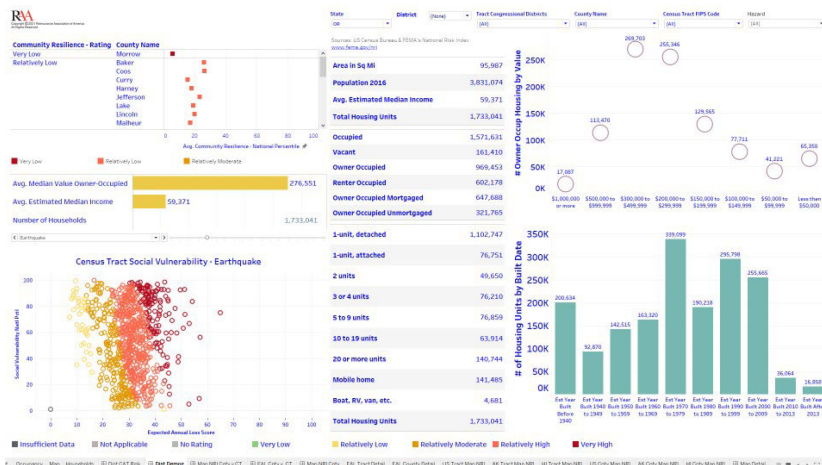
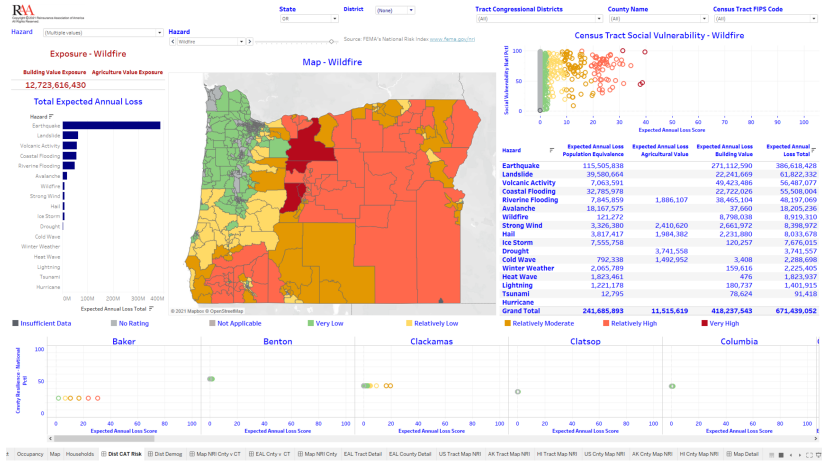
<sup>8</sup> <https://waysandmeans.house.gov/legislation/hearings/ways-and-means-committee-hearing-leveraging-tax-code-infrastructure-investment>.

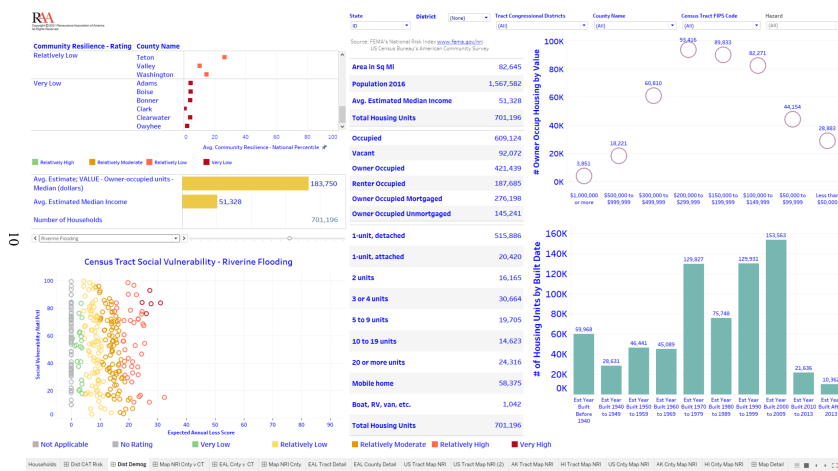
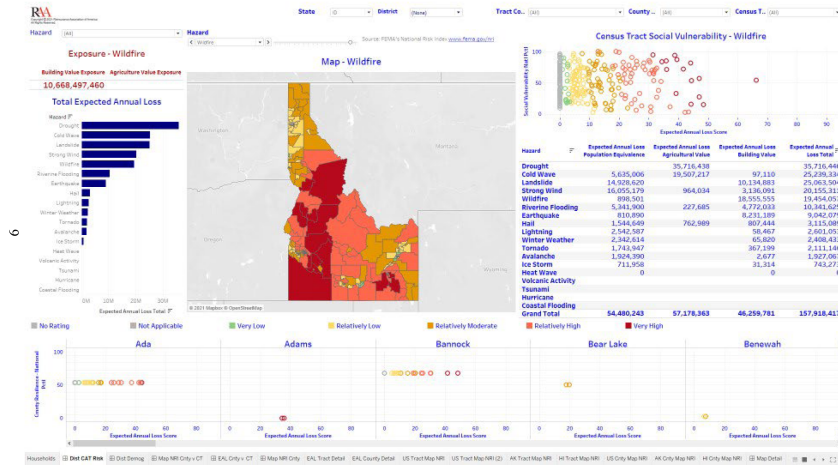
<sup>9</sup> <https://www.banking.senate.gov/hearings/05/11/2021/reauthorization-of-the-national-flood-insurance-program-part-i>.

<sup>10</sup> <https://transportation.house.gov/committee-activity/hearings/building-smarter-the-benefits-of-investing-in-resilience-and-mitigation>.

<sup>11</sup> <https://financialservices.house.gov/calendar/eventsingle.aspx?EventID=407532>.

APPENDIX A





SECURITIES INDUSTRY AND FINANCIAL MARKETS ASSOCIATION

120 Broadway, 35th Floor  
 New York, NY 10271  
<https://www.sifma.org/>

Chairman Wyden, Ranking Member Crapo:

We applaud your leadership of the Senate Finance Committee. Your direction in making infrastructure investment, including municipal bond financing, a priority for the committee is timely and prudent during these challenging times. We thank you for convening this important hearing and our members stand ready to continue their supporting role as the economy recovers.

### Introduction

The Securities Industry and Financial Markets Association (“SIFMA”)<sup>1</sup> and its member firms<sup>2</sup> strongly support increased investment in this country’s infrastructure, which will help spur job creation and economic growth. To that end, we believe it is critical to support the great work states and localities do in building and maintaining our infrastructure. A partnership among federal, state, and local governments and private investors will ease the burden on the cash-strapped federal government by leveraging our capital markets to create expanded financing options. We believe that this partnership is especially important during this difficult fiscal environment as states and local governments seek to lower their costs and also finance much-needed infrastructure such as schools, roads, and hospitals.

At SIFMA, we believe it is critical to close the infrastructure financing gap by restoring and creating additional vehicles to assist in resolving these needs. We hope that you agree that increased investment in our infrastructure has a critical role to play as our nation will continue to grapple with the economic impact of the COVID-19 pandemic for years to come. Further, the provisions outlined in this testimony will facilitate the more efficient leveraging of our capital markets for the benefit all Americans.

After decades of underinvestment, the U.S. faces an extraordinary infrastructure deficit. In their most recent report card,<sup>3</sup> The American Society of Civil Engineers (ASCE) estimates a \$2.59 trillion investment gap over 10 years between what we are currently projected to spend on infrastructure and what must be spent to fully address the deficiencies in our aging infrastructure. They also estimate that by 2039, a continued underinvestment in our nation’s infrastructure at current rates will cost \$10 trillion in GDP, more than 3 million in American jobs, and \$2.4 trillion in exports over the next 30 years. With existing federal infrastructure programs failing to meet current demand, the U.S. is continuing the troubling trend of underinvestment in this area and risks substantially adding to the financial burdens of state and local governments. This will only lead to further delays of investment in and maintenance of critical public projects, including highways, bridges, hospitals, airports, schools, water, and sewer systems.

Specifically, SIFMA strongly supports providing incentives to rebuild our nation’s infrastructure including: (1) preserving the tax exemption for interest earned by investors on state and local bonds; (2) reinstating the tax exemption on the advance refunding of municipal bonds; (3) expanding private activity bonds (PABs); (4) reinstating a direct pay bond program; and (5) expanding the small issuer exception so that states and municipalities have a variety of additional tools to finance their local projects. It is important to note that all of these priorities were included in some form in H.R. 2, the Moving Forward Act, which SIFMA publicly supports.

### Preserve Tax Exemption for Interest Earned by Investors on State and Local Bonds

State and local governments bear responsibility for financing and building a significant portion of the nation’s public infrastructure, including schools, roads, water and sewer systems, transportation facilities and other public projects. The bulk of these projects have been financed using tax-exempt bonds, wherein the interest earned by investors is generally exempt from federal income tax. As a result, the state or local government pays a significantly lower interest rate to investors than other borrowers in the capital markets. The tax-exemption on state and local bond interest is one of the most important forms of federal assistance for infrastructure investment, and the tax-exempt bond market has successfully provided trillions of dollars of financing for public works over decades.

<sup>1</sup> SIFMA is the leading trade association for broker-dealers, investment banks and asset managers operating in the U.S. and global capital markets. On behalf of our industry’s nearly 1 million employees, we advocate for legislation, regulation and business policy, affecting retail and institutional investors, equity and fixed income markets and related products and services. We serve as an industry coordinating body to promote fair and orderly markets, informed regulatory compliance, and efficient market operations and resiliency. We also provide a forum for industry policy and professional development. SIFMA, with offices in New York and Washington, DC, is the U.S. regional member of the Global Financial Markets Association (GFMA). For more information, visit <http://www.sifma.org>.

<sup>2</sup> In 2020, SIFMA members underwrote over 90% of the volume of new issues of municipal securities.

<sup>3</sup> <https://infrastructurereportcard.org/>.

### **Recommendations**

Preserving the tax-exemption for interest earned by investors on state and local bonds, which is the financing mechanism for the clear majority of infrastructure projects that state and local governments undertake, is crucial.

#### **Reinstate the Tax Exemption on Advance Refunding Municipal Bonds**

Advance refundings provided states and localities with an important tool for refinancing outstanding debt at lower rates and have generated many billions of dollars of interest savings over decades. By reducing their debt service expenses through advance refundings, states and localities were able to free up their borrowing capacity for new investments in infrastructure and other important public projects, in turn boosting their local economies with the creation of new jobs and making public services more affordable. This tool operates much like homeowners refinancing mortgages to a lower interest rate.

State and local governments can no longer access cost savings through this valuable financial tool. The Tax Cuts and Jobs Act of 2017 eliminated the ability of state and local governments to execute tax exempt advance refundings of outstanding municipal bonds by making the interest on advance refunding bonds taxable.

Tax-exempt bonds were first written into the tax code in 1913 and have since then remained an important financing tool. Eliminating advance refundings removed an important financial management tool that allowed state and local governments to save billions on interest costs. When interest rates fall, states and localities seek to take advantage of lower rates. However, bonds can only be paid off early on or after certain specified times known as “call dates.” Before 2018, if an issuer wanted to refund their bonds before 90 days prior to the call date, they needed to issue new advance refunding bonds and hold the proceeds in escrow until the call date of the original bonds, then pay off the original bonds on the call date. Now, issuers must wait until the bonds can be refunded on a current basis, 90 days prior to the call date, to issue tax exempt refunding bonds, which potentially reduces their savings.

Advance refundings were already restricted and regulated. The limitation of one advance refunding per bond issue was put in place in 1986 to correct the perception of too many bonds being outstanding at the same time for a single project. Limiting governments to a single advance refunding was a compromise that recognized how important advance refundings are for states and localities while respecting the interest of the federal government to limit the number of tax-exempt bonds outstanding.

### **Recommendations**

SIFMA supports reinstating the tax exemption for interest on advance refunding bonds, which would allow local governments to invest in additional infrastructure projects by saving local taxpayer dollars. Senators Roger Wicker (R-MS) and Debbie Stabenow (D-MI) introduced S. 479, the LOCAL Infrastructure Act<sup>4</sup> and Reps. C.A. Dutch Ruppersberger (D-MD) and Steve Stivers (R-OH) introduced identical legislation in the form of H.R. 2288, the Investing in Our Communities Act.<sup>5</sup> If enacted, these bipartisan pieces of legislation would restore the tax exemption for interest on advance refunding bonds. Further, this reinstatement is also provided for in Section 90102 of the Moving Forward Act.

#### **Direct Pay Bonds**

In 2009 and 2010, the federal government authorized a direct payment “Build America Bond” program whereby states and localities could choose to issue bonds with taxable interest instead of tax-exempt interest and receive a partial reimbursement for their interest expense in the form of a refundable tax credit, which generated new investment in public infrastructure in all 50 states. During the time in 2009 and 2010 that direct pay bonds were authorized, state and local governments financed more than \$150 billion of infrastructure investments using this tool. Reinstating a direct pay program could be designed to be revenue neutral, with a lower subsidy to the issuer than the 35 percent reimbursement for Build America Bonds.

### **Recommendations**

SIFMA supports the authorization of a new direct payment bond program by Congress on a permanent basis as a supplement to, not a replacement for, tax-exempt

<sup>4</sup> <https://www.congress.gov/bills/117/congress/senate-bill/479?q=%7B%22search%22%3A%5B%22s.+479%22%5D%7D&s=1&r=1>.

<sup>5</sup> <https://www.congress.gov/bills/117/congress/house-bill/2288?q=%7B%22search%22%3A%5B%22ruppersberger%22%5D%7D&s=8&r=1>.

bonds so long as the program ensures reimbursements to borrowers will not be affected by budget sequesters. In addition to S. 1308, the American Infrastructure Bonds Act,<sup>6</sup> legislation introduced by Senators Roger Wicker (R-MS) and Michael Bennet (D-CO) which authorizes a new direct pay bond program, Section 90101 of the Moving Forward Act would also permanently implement a direct pay bond program. In sum, any comprehensive expansion of federal investment in infrastructure should include the authorization of a new direct payment bond program.

#### **The Small Issuer Exception**

Our national infrastructure challenges are so complex and large that a single solution is not enough. An expansion of the “small issuer exception” for tax-exempt bonds would support infrastructure investment in small and rural communities that may have difficulty accessing the capital markets. Under current law, small issuers can issue up to \$10 million or less in bonds per calendar year to be sold directly to local banks at a cost savings for local taxpayers. This \$10 million limit was set in 1986 under the Tax Reform Act of 1986. This limit was briefly raised in 2009 as part of the American Recovery and Reinvestment Act of 2009.

#### **Recommendations**

Congresswoman Terri Sewell (D-AL) introduced H.R. 2634, the Local Infrastructure Financing Tools (LIFT) Act,<sup>7</sup> which includes several modifications to the small issuer exception as well as reinstates the tax exemption for interest on advance refunding bonds and establishes a permanent direct pay bond program. This legislation would increase the annual limit for the small issuer exception from \$10 million to \$30 million and this limit would be adjusted by inflation in future years. This legislation would also apply the small issuer exception debt limit on a borrower by borrower basis, rather than aggregating all qualified loans of an issuer. SIFMA strongly urges the Congress to include this legislation in any comprehensive infrastructure legislation. Section 90103 of the Moving Forward Act would also permanently increase the limit for the small issuer exception.

#### **Private Activity Bonds**

State and local governments are permitted under the tax code to issue bonds on behalf of private borrowers for a limited list of public purposes, including infrastructure. However, these bonds come with significant restrictions such as volume limitations and, for some purposes, the application of the individual Alternative Minimum Tax, which raises the cost of financing.

State and local governments are eligible to issue bonds in the capital markets where the interest earned by investors is exempt from federal income tax, which can significantly reduce the interest cost for the borrower compared to other forms of debt. However, if more than 10 percent of the proceeds of a state or local bond issue are used by a private business and more than 10 percent of the debt service on a bond is paid or secured by a private business, the bond is deemed by the IRS to be a Private Activity Bond (PAB) and cannot be tax-exempt unless it meets one of the exceptions specified in law.

These exceptions were included in the tax code to promote the use of bonds to finance targeted categories of facilities and include, among others:

- Bonds where the project being financed is “exempt facility” infrastructure such as airports, docks and wharves, mass commuting facilities, water and sewer facilities, solid waste disposal facilities, and others;
- Bonds where the borrower is a 501(c)3 organization;
- Bonds used to finance qualified home mortgages for low- and middle-income families that meet certain criteria; and
- Bonds issued for the benefit of very small manufacturing companies.

#### **Recommendations**

State and local governments should be able to issue tax-exempt bonds for infrastructure projects with private participation in the same manner that they issue bonds for purely public projects. In addition, Congress should permit the sale or lease of infrastructure assets financed with governmental tax-exempt bonds to private parties without threatening the tax status of the interest on the bonds. A comprehensive expansion of federal investment in infrastructure should also include an increase in the volume cap for private activity bonds.

<sup>6</sup> <https://www.congress.gov/bills/117/congress/senate-bill/1308/cosponsors?q=%7b%22search%22%3a%22wicker%22%5d%7d&r=7&s=3&searchResultViewType=expanded>.

<sup>7</sup> <https://www.congress.gov/bills/117/congress/house-bill/2634?s=1&r=5>.

SIFMA supports increasing the volume cap for private activity bonds, particularly by:

- Increasing the volume cap for PABs;
- Efforts to create a National Reallocation Pool so that unused volume cap can be redistributed among states; and
- Expanding the permissible uses for PABs to activities such as rural broadband, amongst others.

Importantly, Section 90104 of the Moving Forward Act would expand the volume cap for private activity bonds.

**Conclusion**

In conclusion, we applaud the Committee for holding this critical hearing on infrastructure financing, and we encourage lawmakers to use this opportunity to consider the proposals suggested in this submission that will help expand the ability of municipalities to finance their infrastructure needs.

