

ADDRESSING AMERICA'S SURFACE TRANSPORTATION INFRASTRUCTURE NEEDS

Wednesday, November 28, 2018

United States Senate

Committee on Environment and Public Works

Washington, D.C.

The committee met, pursuant to notice, at 9:35 a.m. in room 406, Dirksen Senate Office Building, the Honorable John Barrasso [chairman of the committee] presiding.

Present: Senators Barrasso, Carper, Inhofe, Capito, Boozman, Wicker, Fischer, Moran, Rounds, Ernst, Sullivan, Cardin, Gillibrand, Markey, and Van Hollen.

STATEMENT OF THE HONORABLE JOHN BARRASSO, A UNITED STATES
SENATOR FROM THE STATE OF WYOMING

Senator Barrasso. Good morning.

Today we will discuss the need to address and modernize our Nation's surface transportation infrastructure.

This Committee has historically taken the bipartisan lead on infrastructure issues in the Senate; 2018 is a good example. It has been a banner year for moving infrastructure legislation forward. In March of this year, President Trump signed into law legislation from this Committee to reauthorize and enhance the EPA's Brownfields Program. This legislation is going to help clean up contaminated sites for reuse. It will spur much-needed infrastructure development on abandoned industrial sites.

In October, President Trump signed America's Water Infrastructure Act. As the most significant water infrastructure bill passed in decades, the America's Water Infrastructure Act is going to grow the economy, cut Washington red tape, and keep communities safe.

America's Water Infrastructure Act will upgrade and maintain aging dams and irrigation systems, increase water storage, and deepen nationally significant ports. It authorizes funds to repair aging drinking water systems so that communities across America have access to clean drinking water. It

authorizes important projects. It will create jobs and grow our economy. It will benefit Americans for years to come.

I believe the bipartisan successes on water infrastructure and brownfields cleanup can be replicated for America's surface transportation infrastructure as well.

Our surface transportation infrastructure drives the health, the well-being, and the prosperity of the Nation. We depend on highways, roads, and bridges to move people and goods, to get to our jobs, and to visit our loved ones. Simply put, surface transportation infrastructure connects all of us.

But for far too long we have not prioritized the needs of these vital infrastructure systems. New funding is needed to keep pace with the demands, and burdensome Federal regulations have slowed efforts to spend money efficiently. The time has come to cut red tape and make significant investments in our roads and bridges, investment necessary to keep the Highway Trust Fund solvent.

In a hearing last year in this Committee, Wyoming Department of Transportation Director Bill Panos stated in written testimony that, "Using the current predominantly formula-based FAST Act approach to distribution would ensure both rural and urban States participate in the initiative." He said, "It will also help push the benefits of any new infrastructure initiative out to the public promptly."

Now, I agree. Using the formula-based approach will expedite the delivery of future infrastructure spending. Existing formula funding systems allow flexibility for both rural and urban States to use Federal money to its best advantage. What works in Los Angeles or Chicago may not work for smaller communities like Cody or Riverton, Wyoming.

We also need to update the law to allow our States to build faster, better, cheaper, and smarter. When we make significant investments in our Nation's infrastructure, we need to be sure that money is being used as effectively and efficiently as possible.

By cutting Washington's red tape, we can ensure that better roads and bridges can be delivered faster. As States, counties, and towns wait to obtain permits from Washington, costs for projects rise and time is wasted. It shouldn't take a decade to permit a project that only takes months to build. We need to speed up project delivery, and I believe it can be done without sacrificing environmental safeguards.

We also should explore new technology both in how we build and how we drive can reduce costs, can improve safety, and can increase the longevity of our roads and bridges. Better roads and bridges across America help all of us. Everyone benefits from safer highways, well maintained roads, and resilient bridges.

America prides itself on its ingenuity and commitment to provide infrastructure that meets the needs of its people, and I know that my good friend, Senator Carper, agrees that it is up to our Committee, working together as we did on water infrastructure, working with the Administration to move forward with legislation to improve our highways, our roads, and bridges well into the future.

We are a Committee that gets things done. We want to continue on that road and get a highway infrastructure bill passed next year.

I would now like to recognize Ranking Member Carper for his remarks.

[The prepared statement of Senator Barrasso follows:]

STATEMENT OF THE HONORABLE THOMAS R. CARPER, A UNITED STATES
SENATOR FROM THE STATE OF DELAWARE

Senator Carper. Thanks, Mr. Chairman.

Welcome to our witnesses, our guests, colleagues. I want to thank our Chairman for pulling us together this morning for signaling a clear interest in working seriously toward long-term surface transportation reauthorization not at the middle of next year, not at the end of next year, starting right from the get-go.

I have long believed that transportation infrastructure is an area where our Committee can again lead in a bipartisan fashion. The Chairman has mentioned the Water Resources Development Act.

Ben Cardin has slipped off to another hearing in Foreign Relations and Jim Inhofe has done the same thing in the Armed Services, but I just want to say to them and their staffs, everybody on the Committee and our staffs, Democrat and Republican, how proud I am of all of our collective efforts and grateful for our Chairman's leadership.

I believe that next year we are going to have another opportunity to work on legislation that improves the state of our Nation's infrastructure. I focus hugely on what is a major role of Government. Lincoln used to say the role of Government

is to do for the people what they cannot do for themselves. I would put a finer point on that and say a major role of Government is to help create a nurturing environment for job creation and job preservation.

That is a big part of what we are responsible for, and roads, highways, bridges, rail, airports, ports, you name it, a big part of that nurturing environment. It is hugely important and, fortunately, this Committee has a lot of jurisdiction over, so we are going have fun working on this.

Our Committee's Minority members, our staffs are ready to go to work with our Republican colleagues when the new Congress convenes in a little more than a month. I say that knowing we face significant challenges in reauthorizing our surface transportation programs, the most important of which is the need to identify sustainable sources of funding to address the growing deficit in the Highway Trust Fund. This, my friends, is always the 800-pound gorilla in the room, as we know.

In the last decade, Congress had to transfer more than \$140 billion into the Highway Trust Fund because the Trust Fund revenues were insufficient to meet our investment needs. Additionally, Congress resorted to passing more than a dozen short-term extensions of the transportation program the past decade, which created significant uncertainty for State and local agencies and, not uncommonly, added cost, significant cost

because of that uncertainty to these projects.

Funding uncertainty leads States to stop or slow down many projects. If highway authorization expires or funding runs out, the Federal Highway Administration is unable to reimburse States for Federal aid projects already underway and make it impossible to approve new projects.

As we begin work on a new authorization of the Federal programs, one of our primary goals should be to avoid another series of short-term extensions going forward, and that means having a bill passed before our current authorization expires in 2020.

Albert Einstein once said, "in adversity lies opportunity." That has been one of my guiding principles for as long as I can remember. I think it probably is for a lot of us. I believe that the opportunities to improve our transportation programs in the next few years are great, despite the challenges, the adversity that we are going to face along the way.

New technology, new data are going to enable us to modernize how we plan, how we build, how we operate and use our infrastructure. We ought to look for ways to ensure that Federal programs support innovations that improve mobility, improve safety, air quality, and other goals as well.

We can't have a conversation about surface transportation, though, without talking about climate change and the

increasingly extreme weather that accompanies it. Our transportation sector is a major contributor to climate change, and our roads, bridges, railways are also extremely vulnerable to the effects of extreme weather fueled by climate change.

According to the National Climate Assessment Report released last week by 13 Federal agencies, "Expected increases in the severity and frequency of heavy precipitation events will affect inland infrastructure in every region, including access to roads, the viability of bridges, and the safety of pipelines." Our next infrastructure bill must respond to this threat by focusing on a more resilient and sustainable transportation sector to protect communities nationwide.

Safety is another area which demands our close attention. Motor vehicle crashes have consistently been the leading cause of preventable deaths in our Country, overtaken only recently by the opioid epidemic. More than 37,000 people are killed on our roadways each year. We can't continue to just accept this level of loss. Safety must be a top priority and our investment decisions must reflect that prioritization.

In closing, let me reiterate that I am encouraged by the bipartisan consensus on the need to invest in our infrastructure, particularly transportation. I truly hope that this will be the first of many opportunities to engage in a bipartisan discussion, in this room and outside of this room, to

identify areas of agreement where we can work together, which, as we all know, is a primary reason our constituents sent us here in the first place, to work together and get some things done, like we did last year. Actually, like we did in the last week with the Coast Guard reauthorization bill. I thank those on this Committee who played a role in developing compromise there on ballast water and VIDA Blue.

I want to welcome each of our witnesses and thank you all again for joining us today, for our conversation. We look forward to learning and to hearing from you in just a minute.

Thank you so much.

[The prepared statement of Senator Carper follows:]

Senator Barrasso. Well, thank you very much, Senator Carper.

We are now going to hear from our three witnesses today. First, we are going to hear from Carlos Braceras, who is President of the American Association of State Highway and Transportation Officials, AASHTO, and Executive Director of the Utah Department of Transportation. We will also hear from Robert Lanham, who is the Vice President at the Associated General Contractors of America; and James Corless, Executive Director for the Sacramento Area Council of Governments.

I would like to remind the witnesses that your full written testimony will be included as part of the official hearing record, so please try to keep your statements to five minutes so we will have time for questions. I look forward to hearing the testimony from each of you.

Let us begin with Mr. Braceras.

STATEMENT OF CARLOS M. BRACERAS, P.E., PRESIDENT AT AMERICAN
ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS &
EXECUTIVE DIRECTOR, UTAH DEPARTMENT OF TRANSPORTATION

Mr. Braceras. Thank you, Chairman Barrasso, Ranking Member Carper, and members of the Committee. Thank you for the opportunity to appear today and address the surface transportation investment needs faced by our Country. My name is Carlos Braceras and I serve as the Executive Director of the Utah Department of Transportation and as the President of the American Association of State Highway and Transportation Officials, AASHTO. It is my honor today to represent both the great State of Utah and AASHTO, which represents all 50 States plus the District of Columbia and Puerto Rico.

State DOTs have the utmost appreciation for your Committee's leadership to shepherd the FAST Act in December of 2015. This legislation has ensured stability in the federally supported passenger rail, freight, safety, highway, and transit programs through 2020.

To further build on the Federal surface transportation solid foundation, we believe that it is now time for all transportation stakeholders, led by Congress and the President, to begin work on reauthorizing the FAST Act and to ensure a smooth transition to the next long-term bill without the need

for disrupted extensions.

AASHTO has already initiated, earlier this year, an extensive 18-month effort to develop and present our reauthorization policy recommendations this next October. As the FAST Act reauthorization gets underway, we recommend that Federal funds continue being provided through the existing formula-based structure directly to States, rather than looking at untested approaches that will require more time and oversight.

Building on the federally-funded State administered highway program established over a century ago, Federal investment in all modes of transportation have allowed States and their local partners to fund a wide range of projects that serve the interest of the Nation as a whole. Formula funds work because they serve all corners of our Country, improving mobility and the quality of life in urban, suburban, and rural areas.

Even with the FAST Act, however, the investment backlog for transportation infrastructure continues to increase, reaching \$836 billion for highways and bridges, \$122 billion for transit. The percentage of federal investment in transportation and water infrastructure has declined substantially from almost 6 percent of total federal spending in the 1960s to only 2.5 percent by 2017.

While Federal investment has lagged, States have stepped up

in the meantime to fill the gap, with 31 States successfully enacting State level transportation packages since 2012. In Utah, our legislature recently adopted a State fuel tax and indexed both the fuel tax and registration fee to keep pace with inflation. Also, we are going to be the second State in the Nation to implement a road usage charge program.

But efforts by Utah and other States to fund the system ourselves are not enough. The Federal Government must step up its share of investment, and it will not be easy. Just to keep our current FAST Act funding levels, Congress has to find \$90 billion in additional revenue for a five-year bill or \$114 billion for a six-year bill.

At the same time, the purchasing power of the Trust Fund revenues has declined substantially due to the flat per gallon motor fuel taxes that have not been adjusted since 1993, losing half of their value over the last quarter century. That means the federal highway programs are expected to experience a 51 percent drop after the FAST Act in 2021, and the federal transit programs would have to be zeroed out in 2021 and 2022.

In the past, similar shortfall situations have led to cuts in federal reimbursements to States on existing obligations, leading to serious cash flow problems for States and resulting in project delays. Simply put, this is a devastating scenario that we must do all we can to avoid.

In addition, the FAST Act included a \$7.6 billion rescission of unobligated highway contract authority to take place in 2020. This is a budget artifice that disrupts transportation planning and timely delivery of projects. The cumulative effect of rescissions with over \$22 billion enacted since 2002 can wipe out the entire balance of contract authority held by States, which will lead to hard funding cuts to dollars promised under the FAST Act.

We must take advantage of the short window that we have right now to head off the dual threat of a funding cliff and a rescission in 2020. If we miss this opportunity for action, the extremely costly and disruptive scenario for transportation programs around the Country will become all but inevitable.

State DOTs remain committed to assisting Congress in the development of policies that will ensure long-term economic growth and enhance quality of life. You can be fully assured that AASHTO and the State DOTs will continue advocating for the reaffirmation of a strong Federal-State partnership to address our surface transportation investment needs.

I want to thank you for the opportunity to testify today, and I am happy to answer any questions you may have.

[The prepared statement of Mr. Braceras follows:]

Senator Barrasso. Well, thank you very much for sharing your best thoughts. We appreciate your comments.

Now, Mr. Lanham.

STATEMENT OF ROBERT LANHAM, VICE PRESIDENT, ASSOCIATED GENERAL CONTRACTORS OF AMERICA

Mr. Lanham. Chairman Barrasso, Ranking Member Carper, and distinguished Committee members, thank you for convening today's hearing. My name is Bob Lanham. I am a highway and bridge builder from Houston, Texas. I have the pleasure this year of serving as vice president of AGC. AGC is a national organization of 26,500 businesses that are involved in every aspect of the construction business in all 50 States, Puerto Rico, and Washington, D.C. AGC members build the Nation's infrastructure; its highways, bridges, airports, transit systems, rail facilities, and other transportation projects that keep America moving.

Mr. Chairman, in my written testimony I stress several themes. The main overarching theme is that the time for infrastructure investment is now.

As the Committee knows, there has been much talk at the White House and on Capitol Hill over the last two years about investing in and upgrading the Nation's infrastructure. While the Congress has moved infrastructure authorizations and provided new investment for current Federal infrastructure programs, more needs to be done.

The American people, President Trump, bipartisan members of

Congress, and those of us in the stakeholder community have all expressed support and the need for a bold and robust infrastructure vision. There is no reason not to invest in our infrastructure now.

AGC has long recognized and advocated for the need to invest in more types of infrastructure, from highways, roads and bridges, to runways and water systems. As such, we have recommended to the Congress and the Administration that any new infrastructure plan should be broad-based. However, we should caution that any new proposal must not ignore one of the gravest threats to the transportation investment in this Nation: the long-term solvency of the Highway Trust Fund.

Shortly after the FAST Act expires in September 2020, additional revenue of some \$20 billion per year will be needed just to maintain current funding levels. Failing to address the Fund's solvency ongoing revenue shortfall leaves open the possibility of disruption and uncertainty for States, as well as the construction industry. AGC urges the Congress and the Administration to act sooner, rather than later.

In the past, funding uncertainties and short-term extensions have led to project delays, cancellations, higher costs, delays of improvements that affect safety, efficiency, and economic development. If in fact the Congress acts on a broad-based infrastructure bill, and we hope you do, failure to

address the structural flaws in the Highway Trust Fund will undermine any potential benefits from such bill.

Increasing the motor fuels tax is the simplest and most effective way to achieve this goal, but several other viable revenue alternatives exist. We believe the Highway Trust Fund revenue construct must include three things: one, a reliable, dedicated, and sustainable revenue source derived from the users and the beneficiaries of our surface transportation system; two, resources sufficient to end the chronic shortfalls and support increased investment; and, three, be dedicated solely to surface transportation improvements.

Adhering to these principles would assure the States and the Federal Government that we will continue to be a reliable partner with the States and local governments in the funding and delivering of a safe transportation network that meets our Nation's needs, both economic and growth.

Further, the Congress potentially considers a comprehensive infrastructure proposal, it is important to recognize that two previous authorizations, the FAST Act and its predecessor, MAP-21, both reformed the Federal surface transportation programs in a manner that emphasized meeting national goals, while providing States flexibility. Given this admirable policy achievement, we do not need to create new programs or add additional procedures to deliver additional surface transportation investments as a

part of any infrastructure initiative.

To quite simply put it, our recommendation is for the Congress and the Administration to take this generational opportunity that presents itself in a broad, robust infrastructure bill to once and for all end the cycle of short-term extensions and provide growing revenue to address our needs. This newfound certainty and the additional investments should allow for the reauthorization of the FAST Act prior to its expiration in 2020.

Unfortunately, none of the themes in my testimony are new. I imagine that you have heard them before, time and time again. But what is different today is leaders on both ends of the spectrum are supportive of such a proposal, and this Committee and its leaders are an essential component in making this happen.

I am thankful for the opportunity to testify today and look forward to any questions you might have.

[The prepared statement of Mr. Lanham follows:]

Senator Barrasso. Well, thank you so very much for your thoughts and your testimony. I appreciate it.

Mr. Corless.

STATEMENT OF JAMES CORLESS, EXECUTIVE DIRECTOR, SACRAMENTO AREA
COUNCIL OF GOVERNMENTS

Mr. Corless. Chairman Barrasso, Ranking Member Carper, and members of the Committee, I am James Corless, Executive Director of the Sacramento Area Council of Governments, and I am honored to be here today representing our Council, which represents 22 cities and 6 counties in the greater Sacramento region.

As you know, I am from California, but I am also from the heartland of California. Our region is not coastal in California; we are central and inland. We are not deep blue; we are a patchwork of reds, blues, and purples; and 85 percent of our land in our region is rural. We are truly a microcosm of America.

Senator Carper, you like to quote Einstein. I like to quote my 13-year-old daughter, who says, "Daddy, Sacramento, we've got some problems and challenges, but we're real, we're genuine, and we've tackled them head-on." In that spirit, I here this morning to talk about four major points that we really think you need to address in the next authorization bill: funding, innovation, long-term planning, and bridging the urban-rural divide.

On funding, my two colleagues here have said much that I would agree with, and I am not going to repeat that, but I will

say one thing. We are going to have to come up with a successor to the gas tax sooner or later, whether it is sooner or later.

I think there were comments in the media this morning that seemed to suggest, perhaps, that I was against a miles-traveled fee, and I want to just correct that for the record. I am not against a miles-traveled fee in terms of something that will replace the gas tax, but hear me out on this. This is very important that we address it.

Twenty miles traveled on a two-lane rural road is not the same as 20 miles traveled on an urban interstate at 9 a.m. at peak hour, rush hour traffic congestion. They exact different costs. The urban interstate is going to require us to build billions of new infrastructure, so we want to manage that demand. We can manage that demand through effective pricing. It is not just about the miles you travel; it is about when you travel, it is about how you travel.

So, in the next authorization bill we want more pilot programs. We want to be able to be more creative. We want to test pricing schemes much like the utility sector now prices utilities. Most things in the private sector are priced by time of day, by peak travel. We do not do this in the transportation sector, and we need to correct that.

Second point on innovation. New technology innovation, you all know this, is coming faster than we know it. Now, we made

advances in MAP-21 and the FAST Act, but we are falling further behind in terms of the speed of technology and things that are transforming our sector. From the local level, as important as the Federal program is, it seems out of touch, given where technology is.

In the Sacramento region, we have started a program called Civic Lab. This was a really interesting idea. We took 20 teams, cities, counties, and transit agencies, and we challenged them to come up and solve their transportation challenges with a couple of rules: you can't spend a lot of money, you have to use technology, you have to use creative problem solving, and must partner with the private sector. We did an umbrella procurement. We allowed them to pull off our umbrella procurements so they didn't have to go through their own procurements to partner with private sector companies.

The projects that came out were truly inspirational. A low-income project to move youth to summer construction jobs so low-income youth could actually show up on time, at 7 a.m. every day, through a shuttle service; on-demand transit for a rural community where you couldn't make fixed route public transit work to get folks to work and to jobs on time; a new traffic management program that can help one of our more popular rural farm areas deal with peak hour congestion during harvest season.

But here is the rub: we can't take our Federal funds and

actually use them to fund these projects. We don't have that eligibility and that flexibility, and we need that. If you want to embrace innovation, we have to do that.

USDOT made a huge stride with its Smart Cities Challenge, and I say recreate that, but do it for communities of all sizes, urban, rural, and suburban, and even State level programs that would be State versions of a challenge for communities to use technology and innovation to come up with quick and effective low-cost solutions.

In terms of the planning process, it is too slow, it is too cumbersome. We have too much to do. It is too much of a checkbox exercise. The future is changing rapidly, and we need our planning process to be quicker, easier, more meaningful, and more data driven. USDOT can do a lot in this regard. We actually are using one of its datasets that it procured for the entire Nation. It is a great use of its economy of scale. We also need USDOT to help build the capacity of our agencies.

Finally, bridging the urban-rural divide, we have had a program now for 10 years that we call the Rural-Urban Connection Strategy and we learned, first and foremost in that program, that broadband and high-speed communications are seen as a form of transportation for our rural communities. We need eligibility in our federal funds to allow those kinds of communication networks and broadband to be funded right along

transportation; it is equal to or greater than in terms of the need of rural communities, as it is as mobility and roads and highways.

With that, I would be happy to answer any questions, and thank you again for the invitation.

[The prepared statement of Mr. Corless follows:]

Senator Barrasso. Well, we appreciate the testimony of all of you. We are going to start with some questions.

I want to start, Mr. Braceras, if I could, with you. Utah, Wyoming, Senator Fischer, who is on this Committee from Nebraska, when she was in the State senate she chaired the transportation committee in the State for Nebraska; I chaired the transportation committee in the State of Wyoming.

We have a poster board here we are going to pull up that just kind of shows the bottom part, the orange I-80 heading to Utah, Wyoming, and then to Nebraska. The orange is where we are today. The green is where we are going to be in the next decade or so, with expanded amounts of traffic going back and forth. Clearly, that is where all the action is traffic-wise in Wyoming. Lots of the State doesn't have that kind of traffic, but we see it there, and then going down to Denver, Colorado.

The Congressional Research Service has come up with this map about freight traffic specifically. As you know, for every one of the big trucks, that is like 4,000 cars in terms of the impact on the roads, so we are going to see that.

What can be done, do you think, to help ensure that interstates in rural States like ours in many ways, as well as Nebraska, can keep pace with the increasing interstate commerce, as well as the commuting that goes along?

Mr. Braceras. Thank you for the question, Mr. Chairman.

It is interesting how connected we are as a Nation and how our transportation system is really providing that connection.

When there is a big snow storm in Wyoming and I-80 shuts down --

Senator Barrasso. Like it did on Sunday.

Mr. Braceras. -- the trucks back up into Utah, and we, on our variable message signs, are indicating the conditions of what I-80 is looking like in Wyoming, and truckers are making a decision of where they are going to spend their time because their hours of service are limited.

I think the point that our Nation depends on a connected transportation system, and it needs to function and it needs to be reliable and dependable for this to work. When you think about the purpose of a transportation system, every single transportation system in the world was created around the fundamental purpose of growing an economy and improving quality of life. It is as simple as that. And if our system is not functioning well, it impacts our entire Country.

So, I tell people in the State of Utah that I need a Federal transportation program, I need a Federal transportation vision because I need the roads to function in Nebraska, in Wyoming, in California in order for my Utah companies to be successful.

So, Mr. Chairman, I think it is important that for us to

recognize that even though we are connected with the transportation system, that every State is unique and regions within States are unique, and it is important for us at the Federal level to recognize that they are different. Most solutions are best done when they are done with locals and being done together, so if the Federal Government could work with States and with regions to be able to provide the flexibility to find the solutions that work for that region, then we can start to address the transportation system for the entire Country.

Senator Barrasso. You still believe, I think it was in testimony that was given by your organization in the House, that using the highway formula funding, as opposed to trying to recreate something, is the way to go?

Mr. Braceras. Mr. Chairman, absolutely. As I stated in my oral testimony as well, it is a tried and proven method of delivering the highway program. We have been doing this now for about 100 years. We can make sure that we deliver the appropriate program, essentially the right project at the right time for the right region in the most efficient and effective way with the existing Federal funding formula program that is in place today.

Senator Barrasso. This is for you, Mr. Lanham. We had a hearing earlier about ocean plastic and the oceans that are affecting plastics and what could be used, how plastics could

better be used. This was a hearing that we had on plastics and it was interesting The Washington Post had an article last month headlined Plastic Bottles May Become Part of Roads Surface, trying to find what we could do with all of the plastics that are out there.

The article explains that using recycled plastics in road and highway construction can make our roads and highways actually more resilient, that is what they are claiming there. In other words, using plastic waste can make our roads last longer, save taxpayer money.

What do you think about the idea of actually using innovative materials, or others, about recycled tires and things to use in road building, and is there a future in that?

Mr. Lanham. Mr. Chairman, we are big supporters of it and have been doing it for a very, very long time as a company. Williams Brothers Construction Company, we constructed 24 miles of Interstate 10 west of downtown Houston. The existing roadway, every piece of that was recycled and reintegrated back into the construction of the new freeway; nothing was thrown away. So, though that is not new materials, we didn't have to go to the quarries to obtain aggregates recently mined; we were able to reuse the materials and integrate.

I think other products are out there. We have used ground tires in asphalt pavements. There are opportunities, I think,

out there to continue that innovation. What needs to understand is how the business works in construction with regards to economic drivers and costs, and how it ends up affecting the State in the price of their projects.

We look at things in mass and volume. If I have a project and I need 100,000 tons of aggregate to produce the pavements for this job, somebody asked me can I use some crushed porcelain in there, I say, what is the volume available? A thousand tons. Okay, it has become a nuisance for business, as opposed to being an actual commodity throughput.

So, those are the kinds of things that need to be weighed in the discussion, but it has been proven, we can effectively recycle and maintain quality product for the taxpayer.

Senator Barrasso. Thank you.

Senator Carper.

Senator Carper. I was looking forward to this hearing when I saw who was going to testify, and you have exceeded my expectations. This like a smorgasbord of good ideas and good advice, so thank you for all of it.

I had a visit a month or so ago in my office from folks from Hyundai who have a couple of plants in this Country, a Korean company, and we were talking about fuel efficiency for the vehicles that they are going to be building in the future. I remember being at the Detroit Auto Show about 10 years ago.

The car of the year that year was the Chevrolet Volt. It was a hybrid combination battery and regular gasoline driven engine. It got about 38 miles on a charge. This last year the car of the year at the Detroit Auto Show was the Chevrolet Bolt. It is just a straight electric vehicle, battery, and it gets about 140 miles to the charge.

Folks from Hyundai came by and they told me that about in a year or so they are going to be launching some new model vehicles that will be all electric and that will get, I think they said, about 250 miles to the charge. They are not going to buy any gasoline; they are not going to buy any diesel.

We have some States that are showing us the way of how to make sure that the folks that are not contributing through traditional user fees to the building and maintenance of our roads, while actually contributing to reducing the threat of climate change and extreme weather that we are seeing everywhere almost every week.

A couple of us on this Committee, including our Chair and Senator Inhofe and I, I think Senator Cardin as well, met with the President several months ago. He brought us in to talk about transportation infrastructure. I was surprised; I expected him to basically talk for an hour and then say we were finished, but he talked for a few minutes and then said what do you all think. I shared with him an idea that George Voinovich

and I suggested to Bo Simpson almost 10 years ago, and the idea was to restore the purchasing power of the traditional user fees, gas and diesel, 4 cents a year for 4 years, and then to index going forward.

I suggested to the President that that might be a good idea and he cut me off. He cut me off and he said, that's not enough. He said it ought to be 25 cents a gallon and it should be now. He said, I know there will be a lot of political pushback on that, but he said, I will take the heat for that.

Later in the day I talked to Elaine Chow, our Secretary of Transportation, and I said, was he serious, did he really mean that? She said, he has been talking about it every week for weeks.

So I think, as a former governor, the key in getting stuff done on the financing side is leadership, whether you are the governor for your State or you happen to be President of the United States. If the President will show that kind of leadership, we can make a whole lot of progress.

We have provided under previous legislation, as you know, a national pilot for about a dozen States for road user fees. How is that going? Any ideas? Any thoughts? Go ahead.

Mr. Braceras. Yes. Thank you, Senator, for that question. There are a couple activities taking place. There is a coalition of 14 western States that are involved in what we call

RUC West, Road Usage Charge West, and we have been working together for --

Senator Carper. I call that rock and roll.

[Laughter.]

Mr. Braceras. It is almost that cool. My wife rolls her eyes.

But we got together, and what we are doing is, we are trying to learn even the questions to ask on what it takes to implement a road usage charge. So the State of Utah has been participating in this for the last six years, and what we do is we provide funding and we do little projects, all working together to be able to start to move this idea forward.

This last legislative session we brought this to our legislature and we had this discussion about it, and we thought they would maybe sponsor a small pilot program on their own. Instead, they passed legislation instructing us to actually implement a voluntary program for road usage charge for alternative fuel vehicles, essentially the electric vehicles, because they see very much this transition that is happening. It is clearly an inflexion point in the technology for automobiles where it is going to be electric vehicles, and it is going to happen faster than most people think.

So, by January of 2020 we have to have a program turned on to actually have an implemented program. So, we are going to

learn from this, and expectations are that we are going to expand this as we become more comfortable with how to do this.

The importance in transportation, and Bob mentioned this in his testimony, the connection between the use and how much you pay for that usage or how much impact you make on that system, that connection is an important one, and a road usage charge, I believe, provides the ability to make that connection and it also provides the opportunity to price appropriately. As Mr. Corless said in his testimony, it is important to recognize that five miles in rural Utah is quite different than five miles in urban Utah, and one of the points that we have been selling to our -- not selling, excuse me. One of the points, as we have been working with the Farm Bureau in Utah and the rural members of our State, is that it will give us the ability to not charge on non-public roads. So, if you are running on a private road, you won't be charged for that usage, and that is something that is becoming attractive.

So I think there are ways to be able to implement a program that will help us carry the transportation forward. But I don't think this is something that happens in the next five years; I think it is important to look at the gas tax. That is going to be the way we fund transportation, I believe, for the next 20 or so years, but we need to recognize a transition is taking place.

Senator Carper. All right.

My time has expired. Let me just ask Mr. Lanham and Mr. Corless, do you approve this message?

Mr. Lanham. Yes, sir.

Senator Carper. Mr. Corless?

Mr. Corless. Senator Carper, I think the Federal Government will only follow the States on the next system of pricing. I think we have 5 to 10 years to get more than 25 States to really implement what Utah is doing and other States, so we have to get on with it. We have a short-term problem and a long-term problem, but that long-term problem is going to come at us very quickly, and I think we need a majority of the States to be out there deploying so the Feds can pick up the best ideas coming from the States and localities.

Senator Carper. Good.

All right, thank you very, very much. Thanks for your example in Utah, especially.

Senator Barrasso. Thank you, Senator Carper.

Senator Inhofe.

Senator Inhofe. Thank you, Mr. Chairman.

Let me, real quickly, try to get three things in, crowded, just so I can get your comments, and if there isn't time to do it, we can do this for the record. This will be for all three of you. Those three things would be workforce development, our freight program, which we have included in the past, and then

also the project delivery problem.

Starting off with the workforce development, I am very proud, and I think you know this, Mr. Lanham, because you have a lot of good members in Oklahoma. You have probably heard me say this before, but we had a governor once named Bartlett. He and I, when I was in the State senate, and we are talking about way back, before most of you guys up here were even born. Back in the 1960s, we started that program. We started that for Oklahoma. It has been a leader for a long period of time. In fact, we have recently extended that.

One of the problems we have in workforce development, and I want to get comments from each one of you on that issue, is one that is across the board. When we did the FAA reauthorization bill, I put an amendment on there that you had experimental pilot programs to develop workforce development program in the FAA reauthorization bill.

Anyone want to comment on that issue, workforce development? Now, you are doing a good job. I know that you guys put forth programs where you can hire people right out of these technical programs, and that has been very, very effective in Oklahoma.

Mr. Lanham. Part of what we call our OJT, on-the-job-training, program where we liaison with the technical schools or can work with the vocational training out of the high schools,

but, yes, sir, works well. It is a major emphasis and focus for AGC of America. We are partnering with AASHTO, Federal highways. We have a pilot program trying to go. We have five States that have signed on that are working with a test project on how to integrate workforce development.

We are battling a lot of cultural stigma with regards to most of our challenges. It is not with professional trades, engineers, it is with the construction trades, the carpenters. And that is not a college-bound career. We are offering alternatives to young people and well-paying careers, and how do we reach through that bias that seems to be out there.

Senator Inhofe. Well, thank you. Is it fair to say that you have had comparable success in other States that you have had in Oklahoma? Because you have had success in Oklahoma.

Mr. Lanham. We have, yes, sir.

Senator Inhofe. That is good.

On the issue of the freight program that we had, Mr. Braceras, I notice you made a comment in your written testimony on an Oklahoma company, an Enid, Oklahoma company, so you are familiar with the problem.

I was chair of this Committee when we did the FAST Act, and we developed a program for the first time, a freight program. Any comments to how that seems to be working right now or areas for improvement on that?

Mr. Braceras. Thank you, Senator. That program is working very well for the State of Utah. To me, the freight program was a clear recognition by this Committee and Congress of the importance that the transportation system serves for freight. When you think about it, the freight is that connection for people. Even if you are not out there using the roadways, you depend on the freight that is being moved by the highway system and the rail system. So I consider the freight program one of the really good additions that came about. And we are doing projects right now that we could not have gotten to and would not have been able to prioritize but for the freight program, so thank you.

Senator Inhofe. Well, good.

Mr. Lanham, it was an off-the-record comment that you made in response to something Senator Barrasso stated. The Federal formula program has worked. That is one of the few things in government that seems to be working. It does take into consideration the needs of various States, they have a lot of input. When you come up with a formula and you introduce a comprehensive bill and everyone is mad about it at this table over here, you have done a good job.

Any other comments on the two subjects that I brought up on this?

All right, thank you very much, Mr. Chairman.

Senator Barrasso. Thank you, Senator Inhofe.

Senator Cardin.

Senator Cardin. Thank you, Mr. Chairman. I thank all three of our witnesses.

I live in Baltimore and commute to Washington, so I have a vested interest in us getting this right. Tomorrow, Senator Van Hollen and I have a breakfast meeting in Montgomery County. It is about 40 miles from my house, and where the meeting is is about 10 miles from the Capitol, and I will be commuting about three hours tomorrow morning. We have a challenge in this region and we have a challenge in this Country, so this issue is critically important to all of us.

The FAST Act passed in 2015. We hailed it as a major accomplishment and it did give us predictability through September 30th, 2020. This Congress should have dealt with infrastructure. We were not able to deal with the transportation infrastructure; we did do it with water, and I agree with the assessment of that being a great accomplishment. But we are going to have to deal with it in the next Congress. It has to be done.

What I would like to just get your views on is that legislation we passed in 2015, it had acceptable balance between highways and transit; it dealt with major projects of national significance; it continued creative financing through the TIFIA

program, provided local flexibilities. We have already talked about that, including the transportation alternative programs. Dealt with the regulatory system, tried to streamline that process. Senator Inhofe mentioned some of the other areas in dealing with freight.

Now, I would like to just get your view as to what area of change would you like to see most as Congress looks at a multiyear reauthorization of our transportation infrastructure. I would eliminate that I hope we would all agree is our number one priority, that is, the size of the program, making it as large as possible, obviously requiring revenues; and then, secondly, making it as long multiyear as we possibly can because of the predictability of these projects having a longer lead time, the more aggressive we can be on infrastructure in this Country.

So, recognizing we want a robust program, we want it adequately funded. Some of us do serve on the Finance Committee, so we are going to have to deal with that issue. But the EPW Committee is the principal committee on this issue, and I would just welcome your thoughts as to where you would like to see improvement on the FAST Act as it relates to the issues that are under our Committee's jurisdiction.

Mr. Braceras. Thank you, Senator, for that question. We have made significant progress over the last, I would say, 15 to

20 years in how the program is being delivered right now. There has been a lot of work done in streamlining the project delivery.

And when I use that word streamlining, I hope it is not looked at in an offensive way. The flexibility that Congress has given to State DOTs, we have assumed NEPA, the environmental process. The State of Utah has taken over that responsibility and it clearly has allowed us to do the right thing at the right time for our citizens. We are the biggest champions of the environment in Utah; that is where we live, that is what we love, and our citizens hold us accountable for that, so I thank you for that flexibility in that area.

I would ask that we continue to look at options for providing additional flexibility for how we use the funding that we have available to us. One of the things that we do aggressively is we exchange Federal money for State money for our locals. Our locals don't do as many Federal projects as we do, and they struggle with the process. So, they line up and we exchange at 85 cents on the dollar and we give them State money that gives them the flexibility to deliver the projects that they need for their citizens, and they can deliver it more effectively and efficiently; and we then manage the Federal program because we do it every day.

So, I think that is an example of how the Federal money

brings some restrictions with how we deliver these projects, and it doesn't have to be as complicated as it is. If Congress and the Administration can focus and be partners on the outcomes of what we are trying to achieve. We are trying to save lives, we are trying to lower the total cost of ownership of our infrastructure by doing the right project at the right time. And we are trying to improve mobility so you don't have to spend three hours commuting to a meeting that probably shouldn't take that long. This is all about quality of life and our economies, so if we could focus on those outcomes more, provide flexibility for States and locals to be able to deliver the program, I believe we can make another step forward.

Mr. Corless. Senator Cardin, three things quickly. First is innovation and technology. I think we do have some programs in the current FAST Act, but we have to make it real. We have to go beyond just sort of eligibility. We have to really push a whole different thought process around ITS, innovation technology, and really imbedding those in how we operate the transportation system, number one.

Two, I think we have to strengthen regional planning, rural planning, build capacity among organizations like mine.

Then finally, I think, I credit Utah for this but also the State of Virginia, doing a lot of very quantitative data-driven project selection using data. We have to basically re-instill

trust among the public that those investments, limited dollars, are getting the biggest bang for the buck. I think Virginia has gone from zero to 60 with its SMART SCALE process. It did that after it passed a major revenue increase at the State level. It is transparent. People understand what benefits they get from those projects.

We have to get into that across all the States and all the regions in the Country, and I think the USDOT can have a strong role in helping build that capacity for us on the data side.

Mr. Lanham. Senator, I would just add two more things that have been discussed. One is backup on workforce development. I think there is an opportunity to provide for workforce development encouragement in the next reauthorization. The second is, continue to look for opportunities to add what I would call contemporaneous reviews in the NEPA process and the permitting process. There are still some opportunities where those things can run concurrently instead of consecutively and save some time, because we end up with a duplicate process, and I think we have a hard time explaining that to the public, what we do.

Senator Cardin. Thank you.

Senator Barrasso. Thank you, Senator Cardin.

Senator Wicker.

Senator Wicker. Mr. Chairman and Mr. Ranking Member, I

have to say that this has been a very disappointing hearing. I was hoping you would choose some magicians to come in here, perhaps some alchemist to tell us how to stir a pot of lead, get it to the right temperature, and turn it into silver and gold, and we wouldn't actually have to pay for infrastructure.

But here we have learned, and we are hearing it from both sides of the aisle, presumably even from the President of the United States, that if we want to build roads and bridges and infrastructure, we have to come up with some revenue solutions to actually pay for this. So, I am just heartsick and disappointed that we are having to go down this path.

But since we are, Mr. Braceras, you are saying that the Highway Trust Fund is a solid mechanism for delivering the funds in the right way, is that correct?

Mr. Braceras. Yes, sir.

Senator Wicker. And you think for the next 10 to 20 years the gasoline tax is going to be the way to put money into that Trust Fund?

Mr. Braceras. I believe so, yes, sir.

Senator Wicker. Okay. Do you advocate or have you given any thought to going from the per gallon to a percentage of the price, as some States have done?

Mr. Braceras. Yes. In the State of Utah we haven't made that jump, but we have indexed the gas tax, and the gas tax

rises based on CPI.

Senator Wicker. So it is the same result.

Mr. Braceras. It is close to the same result. The legislature has put a cap, but it is a pretty high cap, on how high that will continue to go, and every year our tax commission makes that adjustment based on the cost.

Senator Wicker. When was the last per gallon enacted?

Mr. Braceras. In 2015.

Senator Wicker. Okay. And what is it?

Mr. Braceras. Today, it is sitting at 29 --

Senator Wicker. I am asking the Federal.

Mr. Braceras. The Federal rate is 18.4 on gas.

Senator Wicker. And when was that implemented?

Mr. Braceras. In 1993.

Senator Wicker. Okay. What if we had indexed that back at that point? Where would we be?

Mr. Braceras. We have lost about 50 percent of our purchasing power, Senator, since that point. Now, based on what you set as an index, I don't know if you would completely make that up, but we would not be fighting. In my opinion, we are fighting two battles: we are fighting the inflation battle that is a pretty powerful one, and we are also fighting the fact that we haven't made a change in so long.

Senator Wicker. So, if we had just kept it even with

inflation, we would be 50 percent better?

Mr. Braceras. Yes, sir.

Senator Wicker. Or words to that effect. Now, your organization also has published a matrix of illustrative surface transportation revenue options which would be ways, in decades to come, to move to other forms. And then we have been talking about this user fee or whatever the terms are, vehicles per mile and things like that.

Let me ask you, Mr. Braceras, which of those options do you think are the most viable going forward?

And then if Mr. Corless and Mr. Lanham could follow up and explain exactly mechanically how this works and we differentiate between rural roads and private roads and interstate highways in our ability to collect the revenues, and are there privacy concerns that you think are real in terms of vehicle owners having to give out that information.

Mr. Braceras. Senator, I will speak for Carlos Braceras as Executive Director of the Utah DOT in this response. Yes, I think the gas tax is the way to go in the future. As an association, we provided a menu of options, and over the next 18 months we want to hone in on a better way of providing advice to Congress on what options are available.

But as you have the challenge of getting all your members on the same page, we have the same challenges, 52 members to get

on the same page as well. But I believe the gas tax is the way to go in the near future, and I also believe that road usage charge, which is the term we are using instead of VMT, but road usage charge is the path forward for a longer term fix to this, and we need to start transitioning in.

Senator Wicker. Okay, so how hard is it to differentiate? How do we do that, between the rural roads and the interstates and private roads?

Mr. Lanham. Senator, you can differentiate, but it will require technology that we have seen some pushback with GPS tracking. Obviously, where you have driven has been an issue for many groups with regards to privacy; on what road was I driving at what time. But that is exactly the information we need because engineers, the smart ones, that is exactly how they design these roads, is what kind of traffic is going to be on and when. So, I think it feeds to the managers of the system how to better take care of the roads and design them better in the future when we actually have better data in the entire network.

Senator Wicker. How do we do it, Mr. Corless?

Mr. Corless. Well, Senator, either you do odometer readings, which is very imprecise and every road is the same, every mile is the same, or you do it with what is already the technologies installed in most vehicles; you have a device using

GPS, it knows where you are going. There are definite privacy concerns.

The good news about us having five to seven years is I believe we can work those out. But I think we have to be precise, we have to use GPS, because there is a fairness issue that I brought up, and I don't think every mile is the same if you travel rural versus urban.

Senator Barrasso. Thank you, Senator Wicker. Staff has been instructed, based on your admonition, to make sure that for the next Committee hearing we will have an authoritative, credible, and accurate alchemist to make a presentation.

Senator Wicker. Thank you very much. I appreciate your attending to that.

[Laughter.]

Senator Barrasso. Senator Van Hollen.

Senator Van Hollen. Thank you, Mr. Chairman.

Thank you all for your testimony. I really want to pick up on Senator Wicker's questions because I think we all recognize, on a bipartisan basis, we have huge infrastructure needs in many areas and obviously in surface transportation, and a big gap between those needs and the resources available, and I think the political stumbling block really has been identifying a way that we can bring in those revenues.

As I understand the testimony of all of you, in the short

term, you believe some kind of increase in the Federal motor fuels tax is the way to go. Is that correct for all three of you?

Mr. Braceras. Yes.

Mr. Lanham. Yes.

Mr. Corless. Yes.

Senator Van Hollen. And just in terms of the politics of this, as you look around the Country now, that is still the primary funding mechanism for States, is it not?

Mr. Braceras. Yes.

Mr. Lanham. Yes.

Mr. Corless. Yes.

Senator Van Hollen. All right. And that is true in States that are dominated by more Republican governors and legislatures, as well as Democratic governors, right? And you increased it in Utah in 2015 and a lot of other States in the last five years increased their gas taxes?

Mr. Braceras. Thirty-one other States.

Senator Van Hollen. In the last?

Mr. Braceras. Thirty-one other States since 2012.

Senator Van Hollen. Since 2012. So I just think, as we look at both the short-term and then the longer term, it is important to look at some of the State activity. And I agree, as we look to the long-term, the States are also sort of

examples of innovations that we should see how they test out and whether we can adopt them.

In the absence of additional Federal funding, States, or certainly localities that are able to do it based on the concentration of populations, are moving forward more in the area of public-private partnerships, is that right?

Mr. Braceras. Yes.

Senator Van Hollen. And can you talk about how that has sort of picked up around the Country? I know in Maryland, for one of our major transit projects, the Purple Line, it is a public-private partnership. So, can you talk about the examples of where that has worked well, but also some of the potential horror stories that people encounter with public-private partnerships and where you see that fitting in to this equation?

Mr. Braceras. I am not sure if I can come up with a horror story, but I think the important thing on a public-private partnership is, again, one size does not fit all in these because we are not all the same. A public-private partnership, I have characterized to our legislature before, is really everything on the spectrum.

If you look at when we went into design build to deliver projects, that is an increase in the public-private partnership when you are working with the contractors and the consultants. Or construction manager-general contractor, that is another

movement on the scale of a public-private partnership.

Maybe this is the horror story. We have evaluated doing full tolling on a brand-new freeway facility as a public-private partnership, and the public pushback was tremendous against that because there was a fear that they were going to lose their ability to control; they were going to be one level away from being able to control.

But we also do public-private partnerships right now in our rest areas, where we work with private companies to provide facilities and features in our rest areas that we couldn't have done before. We do public-private partnerships with our web-based applications, where we will provide advertising opportunities. Our legislature is going to move a bill this session.

We have talked about doing it with our IMTs, Incident Management Teams, but our public safety officers did not want to have commercialization of those Incident Management Teams, but we are going to do courtesy patrols that will be public-private partnerships.

So the idea is, I think, a very important one that we need to continue, and it is going to continue to evolve in the Country, and I believe there are opportunities for public-private partnerships whether you are in a rural State or in an urban area as well, so it is not one size fits all.

Senator Van Hollen. Got it.

Mr. Corless. Senator Van Hollen, I am a big fan of public-private partnerships. In a small scale, with a Civil Lab program, that is what we have been experimenting with in Sacramento, California.

But I do want to say something that I think is very important. I don't believe that a public-private partnership is the way to generate revenue that is just sort of sitting out there mythically waiting on the sidelines; it is a way to manage risk. That is really the benefit of P3s, is that it manages risk; it puts it in the private sector. In order to do that well, we in the public sector have to be good dealmakers; we have to understand actually how to make a deal and what the private sector brings and what we need in terms of the public interest.

But with a few exceptions, toll roads perhaps being one of them, we are not making a profit in the transportation sector. That is not what we are doing. We are moving people and goods and bits of information. We decided long ago that movement was a public good, so there is not, generally speaking, a profit there. So we have to be careful that this is not some sort of a recipe for them coming to save the Federal transportation program. It is a tool which we should be using far more often.

Senator Van Hollen. And let me be clear. I think private-

public partnerships are an innovative way to try to leverage some additional resources. As you say, the goal is not to make a profit, and that is where public oversight is absolutely essential, kind of a utility type model. There have been some examples, like parking garages, where all of a sudden people were paying a much bigger fee and it was going into bank accounts of some Wall Street banks.

So I am just suggesting that if we don't get our act together at the Federal level and increase the Federal funding component of what we do here, you are going to see more pressure for leveraging additional funds through public-private partnerships. And while they may be available in both rural and urban areas, they are going to be more available in urban areas, so I am just encouraging everybody to come to the table to come up with a solution for Federal revenue.

Senator Barrasso. Thank you, Senator Van Hollen.

We have a briefing with the Secretary of State and Secretary of Defense coming up within about 25 minutes, so if we could try to keep it to 5 minutes each.

Senator Rounds.

Senator Rounds. Thank you, Mr. Chairman.

Mr. Corless, you indicated earlier that you really like the idea of the options that are made available so that we can address local needs based upon what the demands are in an urban

versus a rural area, and I got to thinking it sounds good because in South Dakota we are rural, and to be able to do this is helpful for us. Yet, at the same time, one of the benefits of having a Highway Trust Fund, and one that has stood the test of time over literally decades, has been that this has been a Trust Fund for infrastructure development, and we restrict it to that.

The more lenient we are in terms of what is included in that means, then, that we risk the chance that the public will see this as one more opportunity to tax them for those areas that may be somewhat related to transportation, but not necessarily for brick and steel and so forth, and asphalt.

Talk to me about how you view this in terms of the urban challenges you face and how we still keep that sense of confidence in the public that gas tax money is going to go to roads and bridges, and not to other types of designs and attempted changes of, as you say, moving people at the right time of the day as opposed to actually building concrete roads.

Mr. Corless. It is a great question, Senator. Let me be clear. I think to keep the trust in the Trust Fund we have to keep it focused on transportation, on moving people, goods, and information. I don't advocate for any more mission creep than that.

However, I do think that we are at a point now in our

transportation system where we need to actually begin to transition from constructing to operating. We have high poverty in our rural areas. Moving people from point A to point B sometimes takes operations funding.

To be clear, the Trust Fund was set up to build the interstate system. It was set up as a construction program, so it is a question in front of you in terms of how much you want to allow some operations. There is some flexibility already. We have the congestion mitigation air quality funds, CMAQ, the STP block grant funds. We are able to use some eligibility in some of those.

I don't think we should transition to an entirely operational program, but I do think it is in the Federal interest to basically be a seed investor to get some of the best ideas out there going, but to limit it, say, for a three-year window on some of these more operational improvements. That is how we use our CMAQ funds. I think we could actually extend that into other sources of funds so that we can get the most innovative projects possible.

Senator Rounds. Thank you.

Mr. Braceras, your thoughts. Once again, I think this is the biggest threat we have to being able to pass a long-term project, is making sure that we can find the appropriate split between, as Mr. Corless has suggested, operational needs versus

construction and reconstruction needs.

Your comments?

Mr. Braceras. Yes. Thank you, Senator. I believe focus is very important in what we do. That is how we are going to develop the trust that we need from our citizens to be able to deliver this program. In the State of Utah, maybe we are lucky in this way. Our Federal money makes up about 20 percent of our total program, so we have the gas tax that I talked about earlier, but we also have just over 21 percent of the State-wide sales tax that goes for capacity projects. So, we focus our entire Federal program on the simplest maintenance projects that we have on the State, so we are doing pavements and bridge projects, and we can very clearly show what that program is delivering for our citizens, and it really is that focus, I think, is important.

So, as you consider where you want to go with the next reauthorization, I believe being very clear on what you are trying to achieve with the Federal program is going to be important. We are going to put a man on the moon type of thing. But that is a very important part, I believe. We have to provide that vision.

Senator Rounds. Mr. Lanham, we are going to run out of money, according to the forecast right now; the Trust Fund is there. What should be the focus of the Trust Fund resources we

have?

Mr. Lanham. Senator, I think we need to take a hard look at what our mission is on the Federal level and what it is that we need to be able to spend money on, and what should be the local responsibility. I think we are at a point where I think do we have the money? Can we afford it? If we can't, then what do we need to be doing with it on a priority, and that is what we need to focus on. I think we stretch too far with too little and we are not completing things.

Senator Rounds. Thank you.

Thank you, Mr. Chairman. I yield back.

Senator Barrasso. Thank you, Senator Rounds.

For the Senators just arriving, we have a briefing with the Secretary of State and the Secretary of Defense in about 15 minutes, so I am going to ask that people try to stay within the 5 minutes.

Senator Gillibrand.

Senator Gillibrand. Thank you, Chairman Barrasso and Ranking Member Carper, for holding this hearing today to examine our Nation's transportation infrastructure needs.

In the Northeast, and in New York in particular, we are faced with the challenge of aging infrastructure that has outlived its useful life and needs repair or replacement. On top of that, climate change fueled sea level rise and extreme

weather threaten to put our infrastructure at risk if we do not rebuild it in a more resilient way.

Our rail infrastructure is literally crumbling. Our century old Hudson Tunnel, used by Amtrak's Northeast Corridor and hundreds of thousands of New Jersey transit commuters each day are at serious risk of failure. This already aging tunnel has been made worse by flooding and corrosion during Super Storm Sandy. Closure of that tunnel would shut down Amtrak service for people trying to get from New York, Boston, and Providence on one side of the Hudson River to cities like Newark, Philadelphia, Wilmington, and Washington, D.C. on the other side. It would be nothing short of a disaster, and an avoidable one at that.

That is why I cannot talk about our infrastructure needs without mentioning this fact: every day the current Administration delays moving forward with the Gateway Program, they are gambling not just with New York's economy, but the economy of the entire Northeast region. The Administration should stop stalling and work with New York and New Jersey in a constructive way. They should begin by releasing the environmental impact statement for the Hudson Tunnel so that we can move this critical project forward.

We also need to ensure that we are fully investing in our subways, commuter railroads, bus services. At a minimum, we

need to protect the 20 percent set-aside for mass transit in the Highway Trust Fund.

But we can be doing even more to deliver additional dollars for transit capital and maintenance projects. Funding is necessary to fix safety problems and expand capacity to keep up with the demands of riders who will rely on public transportation to get around. We shouldn't be waiting for trains to break down or crash into platforms, or multi-hour delays that are basically leaving our commuters stranded, unable to get to work on time. There is such a sense of urgency in our city right now that we have to do something to improve our subways and commuter railroads, so we have to get serious about the problem.

New York's infrastructure challenges are not limited to just rail and transit. According to our most recent data, there are more than 18,000 structurally deficient bridges in our State, including the Brooklyn Bridge. We also need to think about our roads and highways, and how to integrate technologies like autonomous vehicles that have very different operational requirements than existing vehicles, and that includes everything from roadway signage to lane markings to pedestrian safety. There are also many rural highways in upstate New York, as there are across the Country, that will prove challenging for these vehicles to operate safely on.

I hope that Congress looks forward to the next surface transportation reauthorization in 2020, as well as other legislative priorities for infrastructure. We have to take a comprehensive approach that provides funding necessities for highways, bridges, railroads, safe and resilient investments that meet our transportation and mobility needs.

Two questions with my minute and 40 remaining.

Mr. Corless, what more should Congress be doing to invest in public transit and ensure that transit agencies have the ability to maintain their existing infrastructure and meet the current and future capacity needs of riders?

Mr. Corless. Senator Gillibrand, thank you for that question. Even in Sacramento we are now having over 40 days a year above 100 degrees. Our light rail system is breaking down due to the heat, and we are stranding people and they are walking along the train tracks.

So whether it is the New York Metro region or a city like Sacramento, here is the fact: we have aging mass transit infrastructure that was funded federally in the last five decades that is now actually about to fall apart, and you cannot do that with just simple FTA formula funds, so we need some sort of infusion, a pilot program, if you will, to rebuild the transit systems big and small across the Country, because the formula funds are not going to do that, and it is getting past

the point of being unsafe.

Senator Gillibrand. And what would be the consequences for transit riders if funding of the mass transit account of the Highway Trust Fund was reduced or eliminated?

Mr. Corless. It would be pretty catastrophic, because I think, again, you are already seeing -- I don't have to tell you about the New York subway and Amazon moving over to Long Island City. You are having a hard enough problem as it is. So I think the connection between transportation in general, transit in our major metro areas and economic prosperity is strong, and we can't lose it.

Senator Gillibrand. Thank you. Thank you, all of you, for participating. Thank you, Mr. Chairman.

Senator Barrasso. Thank you, Senator Gillibrand.

As I turn to Senator Capito, we are going to conclude the hearing a few minutes before 11, so that gives time for five minutes for you and five minutes for Senator Whitehouse.

Senator Capito. Thank you, Mr. Chairman.

Thank all of you for being here today. It has been an interesting conversation. I am from a rural State, West Virginia, and we would be benefit immensely from future investments in surface transportation. Some people think Senator Byrd has paved the entire State of West Virginia, but we still have things like the King Coal Highway and Coalfields

Expressway and Corridor H that we are looking on, and they are different highways to build because of our terrain. I am sure Mr. Braceras can identify with that, being from a mountainous State as well.

But just last year West Virginians voted via referendum to approve a \$1.6 billion in road bonds to fund projects across the State. I talk about it quite a bit because our State is known to not be one of the wealthier States, wealthier citizens, but our citizens really sort of rose up and said this is important to us. We use our roads frequently, we are rural, we use them for everything, and crumbling bridges and potholes and other things that are difficult for us are very important to everyday lives of everybody citizens. So \$1.6 billion is quite a big stretch.

And you noted in your testimony, Mr. Braceras, that 33 other States have made other improvements, 31 States have raised their gas tax, which we did that as well.

So, what I would like to see in a future infrastructure package is a reward to the States that are really stepping up and putting their bang for the buck by their States, and I would like to know, if anybody would like to respond to that in terms of how you think that the State really taking that initiative.

You mentioned the Federal input into Idaho was only, what, 22 percent. That is pretty impressive. What would your comment

be on that?

Mr. Braceras. I think, recognizing that States are stepping up and filling the needs, the citizens clearly need and want transportation systems to work; they depend on it every single day.

Senator Capito. And it is a political winner, too.

Mr. Braceras. I had a phone call from The Wall Street Journal right after the legislature raised the gas tax in 2015, and they said, well, isn't Utah a pretty red State? This is unusual for a conservative State.

And I said, you know what, it is a conservative principle to take care of what you have and have a lower cost of ownership, and that is what our legislature saw, is that by investing in infrastructure, they were actually saving the taxpayers money in the long run; and that is difficult because you are looking at a longer I call it political time frame is not really the same as an engineering time frame sometimes, or economic time frame, so it becomes difficult to do, but you have to develop that trust.

So it is very critical, I believe, for this Nation to be able to step up and develop what I call a world class transportation system. If we are going to continue to be leaders in this world, we need a world class transportation system.

Senator Capito. Let me ask you, Mr. Lanham, a question. I am a big proponent of expanding our broadband infrastructure, which I think goes hand-in-hand with our surface transportation. In your experience of building, what are you seeing advances around the Country in terms of dig once kind of propositions where you are putting the infrastructure in for fiber and other things at the same time you are doing improvements to the road transportation or building a new road?

Mr. Lanham. Yes, ma'am, Senator. We see a lot happening in that area. It is complicated, too, because there are so many different entities that own these facilities to get them to come to the table, because they are providing service for the public, they are occupying the public right-of-way free of charge, and yet they provide nothing but headaches to my friends for trying to execute projects. But we are seeing come and trench, where in one spot everybody goes in at the same time; better engineering, better documentation about where they are at.

So, what we see is then building a library of information that we will be able to protect that asset in the future because we know where it is at and what is actually there with an accommodation for expansion.

Senator Capito. Well, thank you for that.

The other thing I would comment, one of the comments you made about constructing a toll road in Idaho, we had a very

similar experience in West Virginia where it was simply a 30-mile four lane to make four lane, and the local folks just really got very, very upset. I mean, it was going to be \$4.00 both ways. That is a lot of money.

So they were going to opt to go back down on that dangerous two-lane, which defeats the purpose of building a safer highway. So sometimes toll roads may be an answer in a lot of cases, but in rural areas it is really, really tough to have localities buy into that.

Thank you all very much.

Senator Barrasso. Thank you, Senator Capito.

Senator Whitehouse.

Senator Whitehouse. Thank you, Chairman.

I just want to say a word about smaller coastal communities and the infrastructure needs that they have. I know Utah is not very coastal, and even Sacramento isn't very coastal.

Mr. Corless. Not yet.

Senator Whitehouse. Yes, exactly.

[Laughter.]

Senator Whitehouse. We are working on it. Our problem in Rhode Island is that by the time Sacramento gets coastal, there is a hell lot less of Rhode Island, and we don't want that to happen.

But we have, in my State, about 10 to 11 inches of sea

level rise since the hurricane of 1938, the really monster storm that hit us back then. So not only do you stack up that extra sea level for the next big one, but it is not that way just along the shore, it is also that way all the way out to sea. So, when you are dealing with storm surge, you have that whole higher heap of ocean out there that is now surging ashore.

People aren't very expert yet on how you correlate additional sea level rise to storm surge. You know it is at least about 10 to 11 inches. It could be a lot more. So we have communities who are facing this problem. We have communities where, in a storm, you have to figure out where you pre-deploy a fire truck.

Senator Gillibrand was here. One of her neighborhoods burned in New York because the fire and the fire trucks were separated by a flooded area. If that happens, it is a terrible thing for folks.

So there is this whole new planning for increased sea level risks, storm risks that coastal communities are facing, and people are starting to get on their case. Moody's is starting to judge their municipal bonds based on sea level rise storm surge kind of risks and how ready they are for that. Freddie Mac is warning of a property values collapse in coastal areas, which would have a terrible effect, obviously, on the tax base of those smaller communities, so there is a warning coming from

Freddie Mac along with the warning from Moody's.

And if they turn for help to FEMA and try to figure out from FEMA maps what this risk looks like, they are being misled, because our experience has been that FEMA maps are spectacularly wrong. We have had to do State level and local work in Rhode Island to do the coastal mapping, Mr. Chairman, because FEMA is unreliable as a partner in terms of the accuracy of its mapping.

And it is not just Rhode Island. When the big hurricane hit Houston, there was a 50 percent error between what FEMA predicted in terms of flooding and what flooding actually took place.

So, if you are in a coastal community, you have your municipal bond people looking at you with a glinty eye saying, what is up, are you ready for this? You have Freddy Mac saying, by the way, these property values you depend on to pay for your municipality might collapse, so there is not just a lot of money pouring in. The mapping that you have to rely on to make these plans is not reliable. And there you are as a town manager trying to figure out how the hell do I handle this.

So I love the conversation that we are having about infrastructure. I am all for very big investments in infrastructure. But before you do the infrastructure, you have to have the plan so that the community can get it right. And I think we have a big gap right now in helping particularly

coastal communities plan for this. It may be that the weird temperature considerations that you described in Sacramento, Mr. Corless, are a similar kind of analogy, something new that small communities have to deal with.

I know that Phoenix, Arizona, for instance, is having to entirely figure out how it redoes its emergency response staffing because it gets so hot for so long there that people can't work out of doors in that heat; and if you are a firefighter, you can't decide to work indoors that day, you have to go where the fire is.

So they have to wholly redo how they staff and they have to have a whole extra team for cooling people down. It changes the way they work. The airport had to be closed because the tarmac was melting and the air was too thin for jets. So there are all these problems that emerge, and it is really hard for local communities faced with these problems to think their way through them with no support in a very constrained municipal budgetary environment.

So, any way in which you all working on this can help keep your focus on this and your attention on this, I think it is really, really important. Just going back and rebuilding in place what we already built is probably not going to work. We have to understand how dramatically the climate is changing. And if we are going to build 30, 40, 50-year projects, we have

to be planning for the full lifecycle of those projects.

So my time is out, and I just urge you to think about that as we work forward. Infrastructure is great, but these peculiar and changing conditions that are driven by climate change and carbon emissions absolutely need to be taken into account, and we are leaving small communities stranded without the support to help them work through a lot of new science and a lot of new engineering.

Senator Barrasso. Well, thank you very much, Senator Whitehouse.

Thank you to each of our witnesses who are here. We are very grateful. We are going to leave the hearing record open for two weeks in case others have questions. They may provide written questions. We would appreciate your written responses.

I want to thank all of the members for attending, as well. I especially want to thank our esteemed guests for their time.

Yes?

Senator Carper. All I want to say is we have a lot of hearings in this Committee and other committees that we serve on. Some of them are really good; some of them maybe less. This was terrific. You all did a great job and I just want to applaud you and thank you for being here. It may serve as a catalyst and give us some good ideas to work with. Thank you.

Senator Barrasso. Thank you again.

The hearing is adjourned.

[Whereupon, at 11:01 a.m. the committee was adjourned.]