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FULL STEAM AHEAD FOR RAIL: WHY RAIL IS MORE RELEVANT THAN EVER FOR ECONOMIC AND ENVIRONMENTAL PROGRESS

(117–6)

REMOTE HEARING

BEFORE THE

SUBCOMMITTEE ON RAILROADS, PIPELINES, AND HAZARDOUS MATERIALS

OF THE

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
HOUSE OF REPRESENTATIVES

ONE HUNDRED SEVENTEENTH CONGRESS

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U.S. House of Representatives
Washington, DC 20515

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Sam Graves
Ranking Member

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MARCH 5, 2021

SUMMARY OF SUBJECT MATTER

TO: Members, Subcommittee on Railroads, Pipelines, and Hazardous Materials
FROM: Staff, Subcommittee on Railroads, Pipelines, and Hazardous Materials
RE: Subcommittee Hearing on "Full Steam Ahead for Rail: Why Rail is More Relevant Than Ever for Economic and Environmental Progress"

PURPOSE

The Subcommittee on Railroads, Pipelines, and Hazardous Materials will meet on Wednesday, March 10, 2021, at 11:00 a.m. EST in 2167 Rayburn House Office Building and via Cisco Webex to hold a hearing titled "Full Steam Ahead for Rail: Why Rail is More Relevant Than Ever for Economic and Environmental Progress." The hearing will explore the importance of rail to the U.S. economy and as a tool to mitigate climate change. The Subcommittee will hear testimony from BNSF Railway; the Virginia Department of Transportation (VDOT); the Transportation Trades Department, AFL–CIO; and the Arkansas & Missouri Railroad (A&M).

BACKGROUND

For the United States to maintain and increase its economic viability while decreasing overall greenhouse gas (GHG) emissions, rail transportation has the potential to be an important part of the solution. Expanding the use of freight and passenger rail can increase mobility, reduce road congestion, mitigate climate change, sustain good-paying jobs, and enhance our economic competitiveness.

FREIGHT MOVEMENT

America's freight railroads operate over a 140,000-mile national network, delivering on average five million tons of goods every day.[1] In 2019, the rail network accounted for approximately 28 percent of U.S. freight movement by ton-miles (the length and weight freight travels), surpassed only by trucks.[2] Freight railroads are classified in accordance with their annual operating revenues. There are seven Class I railroads, which collectively provide long-haul operations in 44 states and Washington, D.C.,[3] and transport nearly 69 percent of U.S. freight rail mileage.[4] Class II railroads ("regional railroads") and Class III railroads ("short lines") transport the remainder of U.S. freight rail mileage and operate 38 percent of the Nation's rail network.[5] Short lines are often the only way rural America can connect to the rest of the national freight network—playing an important role in providing first-mile

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[1] Association of American Railroads, "Overview of America's Freight Railroads," March 2020.
[2] DOT, Pocket Guide to Transportation, January 2019, Accessed Mar. 3, 2020, *available at* https://www.bts.gov/sites/bts.dot.gov/files/docs/browse-statistical-products-and-data/pocket-guide-transportation/224731/pocket-guide-2019.pdf.
[3] The seven Class I railroads include Burlington Northern Santa Fe Railway (BNSF); Union Pacific Railroad (UP); Norfolk Southern Railway (NS); CSX Transportation; Canadian National Railway (CN); Canadian Pacific Railway (CP); and Kansas City Southern (KCS).
[4] Association of American Railroads, "Railroad 101", *available at* https://www.aar.org/railroad-101.
[5] American Short Line and Regional Railroad Association, "The Short Line and Regional Railroad Industry", *available at* https://www.aslrra.org/web/About/Industry__Facts/web/About/Industry__Facts.aspx?hkey=bd7c0cd1-4a93-4230-a0c2-c03fab0135e2.

and last-mile service that extends the reach of the rail network to urban and rural communities, ports, manufacturers, farmers, and others.[6]

PASSENGER MOVEMENT

Amtrak operates a national rail passenger transportation system, which includes the Northeast Corridor (NEC), long-distance routes, and state-supported routes.[7] To provide national passenger rail service, in typical non-pandemic environments, Amtrak runs more than 300 trains per day, services more than 500 stations located in 46 states and Washington, D.C., and operates a network that stretches more than 21,000 miles across the country.[8] Of all Amtrak passenger trips in 2019, approximately 38 percent were taken on the NEC; 48 percent on state-supported routes; and 14 percent on long-distance routes.[9] Further, in fiscal year 2019, Amtrak carried 32,519,241 customers and brought in a total annual revenue of $3.3 billion.[10] In 2020, the COVID–19 pandemic decreased Amtrak's ridership numbers. Nonetheless, Amtrak continues to push for the long-term future of passenger rail, with proposals for expanded service across the country.[11]

ECONOMIC BENEFITS OF RAIL

As America's economy grows, the need to move more freight and passengers will grow too. The Federal Highway Administration forecasts that total U.S. freight shipments will increase 30 percent over the next 20 years.[12] If the share of that freight that moves by rail stays steady or gains in comparison with other modes, then freight rail is poised for expansion. In fact, freight rail volumes have been resilient despite being affected by the COVID–19 pandemic. Overall volumes in 2020 were down by 12.9 percent for carloads and 1.8 percent for intermodal units. However, by December freight volumes had improved compared to December 2019, where carloads were down by only 3.7 percent, and intermodal units were up by 12.2 percent.[13] Freight rail benefits both domestic and international economic viability: international trade accounts for around 35 percent of U.S. rail revenue, 27 percent of U.S. rail tonnage, and 42 percent of the carloads and intermodal units U.S. railroads carry.[14] The affordability of freight rail saves rail customers (and, ultimately, American consumers) billions of dollars each year and enhances the global competitiveness of U.S. products.

Freight rail customers range from large, multi-national corporations, to small-sized operations. They also vary in the commodities they ship, such as corn, wheat, and soybeans; fertilizers, and various chemicals; cement, sand, and crushed stone; lumber, pulp, and paper products; various food products; crude oil, coal, and other petroleum and energy products; and scrap recycling products, among others. The rail network plays a key role in intermodal operations, forming a vital piece of the international logistics chain along with vessels, trucking, and barges.

In 2019, there were an average of approximately 138,000 Class I railroad and Amtrak workers employed in the United States.[15] Generally, workers employed by railroads earn strong wages and benefits when compared to non-railroad workers. For instance, in 2019, employees of Class I railroads earned on average approximately $132,900 per year when accounting for compensation and benefits.[16] This is approximately 61 percent more than the average U.S. worker, according to the Association of American Railroads (AAR).[17] Relatedly, the freight railroad industry remains one

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[6] *Id*.

[7] 49 U.S.C. § 24102.

[8] *Amtrak, FY 2019 Year End Ridership*, *available at*http://media.amtrak.com/wp-content/uploads/2019/11/FY19-Year-End-Ridership.pdf.

[9] *Id*.

[10] *Id*.

[11] Anderson, Eric. "Amtrak route restructure targets new corridors." *Times Union*. February 5, 2021, *available at* https://www.timesunion.com/business/article/Amtrak-route-restructure-targets-new-corridors-15928591.php.

[12] "Freight Economy," United States Department of Transportation, Federal Highway Administration, *available at* https://www.fhwa.dot.gov/freighteconomy/.

[13] "AAR: 'Railroads Looking to the Future,'" *Railway Age*, January 2021, *available at* https://www.railwayage.com/freight/class-i/aar-railroads-looking-to-the-future/.

[14] Association of American Railroads, "Railroad 101," Accessed March 2, 2021, *available at* https://www.aar.org/wp-content/uploads/2020/08/AAR-Railroad-101-Freight-Railroads-Fact-Sheet.pdf.

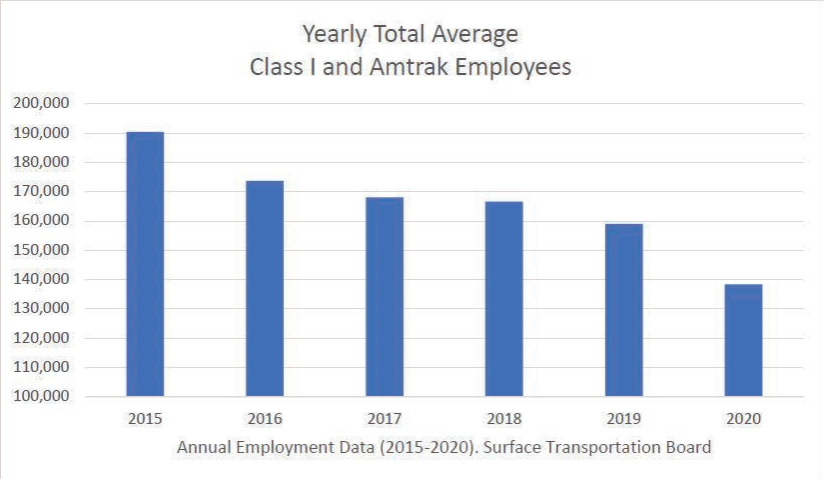
[15] Annual Employment Data (2015–2020), Surface Transportation Board, *available at*: https://www.stb.gov/econdata.nsf/322683bcf67f4143852566210062ac90?OpenView.

[16] Association of American Railroads, accessed March 1, 2021, *available at* https://www.aar.org/issue/railroad-jobs/

[17] *Id*.

of the most densely unionized sectors, with approximately 84 percent of Class I rail employees represented by a labor union.[18] This compares to a 10.8 percent unionization rate in the national economy.[19]

While workers employed by railroads generally continue to earn strong wages and reliable benefits, the employment levels for Class I railroads and Amtrak have steadily decreased since 2015. According to employment data maintained on the Surface Transportation Board's website,[20] on an annual average, the Class I railroads employed an estimated 17 percent fewer employees in 2019 compared to 2015.[21] Similarly, average annual Amtrak workforce levels dropped by an estimated 9 percent in 2019 compared to 2015.[22] The pandemic has further exasperated the labor reductions.



Investments in rail transportation generate economic benefits felt around the country. In 2017, the Class I railroads' operations and capital investments supported approximately 1.1 million jobs, $219 billion in economic output, and $71 billion in wages.[23] Similarly, Amtrak and its passengers generate national economic activity, estimated at $8.3 billion annually.[24] Amtrak's daily operations support more than 80,000 jobs, and when accounting for its indirect impacts, 100,000 jobs are supported by the Nation's passenger railroad.[25]

ENVIRONMENTAL BENEFITS OF RAIL

According to the Environmental Protection Agency's (EPA) 2018 inventory, the "transportation sector generates the largest share of GHG emissions" in the U.S.,

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[18] Association of American Railroads, accessed March 1, 2021, *available at* https://www.aar.org/issue/railroad-jobs/

[19] U.S. Bureau of Labor Statistics, Union Members Summary, Economic News Release January 22, 2021, Accessed March 1, 2021, *available at*: https://www.bls.gov/news.release/union2.nr0.htm.

[20] Annual Employment Data (2015–2020), Surface Transportation Board, *available at* https://www.stb.gov/econdata.nsf/322683bcf67f4143852566210062ac90?OpenView.

[21] Like all sectors of the economy, the freight railroads were impacted by the coronavirus pandemic. In 2020, average annual Class I employment levels were nearly 29 percent lower than those in 2015.

[22] Like all sectors of the economy, Amtrak ridership was impacted by the coronavirus pandemic. In 2020, average annual Amtrak employment levels were 14 percent lower in 2020 compared to 2015.

[23] Towson University Regional Economic Studies Institute, Association of American Railroads, https://www.aar.org/data/towson-university-freight-rail-economic-impact/.

[24] Based on Fiscal Year 2015 data, Amtrak's Economic Contribution, page 2, *available at* https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/nationalfactsheets/Amtrak-Economic-Contribution-Brochure-083016.pdf.

[25] *Id*.

accounting for approximately 28 percent of total emissions.[26] Of this amount, rail accounts for some of the lowest emissions contributions of all the modes at approximately 2 percent.[27] On January 20, 2021, the U.S. re-started the process to join to the Paris Agreement and on February 19, 2021, officially rejoined.[28] Further, with consumer-driven trends towards corporate climate and carbon accountability, various corporations have adopted corporate goals to achieve carbon neutrality (or "net-zero") by a date certain.[29]

Freight railroads account for 28 percent of freight volume but just 0.6 percent of total U.S. GHG emissions, according to EPA data, and just 2.1 percent of transportation-related GHG emissions.[30] While the freight trucking industry was responsible for a total of 429 million tons of carbon dioxide in 2018, freight rail contributed only 38 million tons.[31] U.S. freight railroads, on average, can move one ton of freight 470 miles on a single gallon of fuel, which is three to four times more efficient than trucking.[32] Given this, AAR estimates that moving freight by rail instead of trucks would reduce GHG emissions by up to 75 percent, on average.[33] AAR also estimates that if 25 percent of long-distance (defined as trips of at least 750 miles) freight traffic currently moved by trucks were switched to rail, annual fuel savings would total 1.2 billion gallons, and GHG emissions would be reduced by approximately 13.1 million tons.[34]

Freight railroads are improving these numbers by lowering their own fuel consumption with increasing fuel efficiency. Numerous advancements, such as locomotive design improvements and zero-emission cranes, allow the freights to leverage technology in all aspects of their operations to mitigate their environmental impact. In 2019 alone, U.S. freight railroads consumed 656 million fewer gallons of fuel and emitted 7.3 million fewer tons of carbon dioxide than they would have if their fuel efficiency had remained constant since 2000.[35] Further, several of the individual Class I railroads have made public commitments to help fight climate change by setting declining GHG emissions targets.[36]

Passenger rail carriers are further leading the charge on sustainability. According to the 2019 U.S. Department of Energy Data Book, Amtrak is 47 percent more energy efficient than traveling by car and 33 percent more energy efficient than domestic air travel on a per-passenger-mile basis. Traveling on the electrified Northeast Corridor system emits 83 percent fewer GHG emissions than driving and up to 73 percent fewer than flying. In fiscal year 2019, Amtrak reported a 11.3 percent reduction in diesel fuel use and a 20.3 percent reduction in GHG emissions in comparison to fiscal year 2010.[37]

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[26] EPA's most recent GHG emissions inventory in 2018, the transportation sector surpassed the energy sector for the first time as the largest emitter of GHGs, *available at* https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions.

[27] Fast Facts, U.S. Transportation Sector Greenhouse Gas Emissions 1990–2018, June 2020, *United States Environmental Protection Agency*, accessed Mar. 3, 2020, *available at* https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100ZK4P.pdf

[28] Press Release, U.S. State Dep't., *The United States Officially Rejoins the Paris Agreement*, Feb. 19, 2021, *available at* https://www.state.gov/the-united-states-officially-rejoins-the-paris-agreement/; The Paris Agreement is an ambitious multi-lateral treaty, negotiated in 2015, in which countries commit to making the individual GHG reduction, contributions necessary to halt the overall rate of temperature increase. *See*:

https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement.

https://www.aar.org/wp-content/uploads/2021/02/AAR-Climate-Change-Report.pdf

[29] Freight Railroads & Climate Change. February 2021, Page 3, *available at* https://www.aar.org/wp-content/uploads/2021/02/AAR-Climate-Change-Report.pdf.

[30] "Fast Facts on Transportation Greenhouse Gas Emissions," *United States Environmental Protection Agency*. Accessed March 2, 2021. *available at* https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions.

[31] "Freight Transportation Energy Use and Environmental Impacts." *United States Department of Transportation, Bureau of Transportation Statistics*, October, 2019, *available at* https://data.bts.gov/stories/s/Freight-Transportation-Energy-Use-Environmental-Im/f7sr-d4s8.

[32] Association of American Railroads, *available at* https://www.aar.org/railroad-101/.

[33] Association of American Railroads, "Freight Rail and Preserving the Environment," accessed March 2, 2021, *available at* https://www.aar.org/wp-content/uploads/2020/06/AAR-Sustainability-Fact-Sheet.pdf.

[34] *Id*.

[35] *Id*.

[36] For example, on February 10, 2021, UP announced its plan to reduce absolute scope 1 and 2 GHG emissions from its operations 26% by 2030 against a 2018 baseline. *See* https://www.up.com/media/releases/210210-SBTi.htm. Norfolk Southern has also set company-wide emissions goals. *See* http://nscorp.com/content/dam/nscorp/get-to-know-ns/about-ns/environment/NS-2020-CRR-report.pdf/.

[37] "Amtrak Sustainability Report FY2019," *Amtrak*, *available at* https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/environmental1/Amtrak-Sustainability-Report-FY19.pdf.

Amtrak continues to invest in technology improvements that will yield environmental benefits. For example, it is investing in new Acela trainsets with one-third more passenger seats per car.[38] Amtrak plans to operate the new trainsets along the NEC initially at speeds up to 160 mph, but they will be capable of achieving speeds up to 186 mph to take advantage of future NEC infrastructure improvements.[39]

WITNESS LIST

- Ms. Shannon Valentine, Secretary of Transportation, The Commonwealth of Virginia
- Ms. Caren Kraska, President/Chairman, Arkansas & Missouri Railroad
- Mr. Greg Regan, President, Transportation Trades Department, AFL–CIO (TTD)
- Mr. Tom Williams, Group Vice President for Consumer Products, BNSF Railway

[38] "Next-Generation High Speed Trains," *Amtrak—Northeast Corridor*, *available at* https://nec.amtrak.com/project/next-generation-high-speed-trains/.

[39] "Next-Generation High Speed Trains," *Amtrak—Northeast Corridor*, *available at* https://nec.amtrak.com/project/next-generation-high-speed-trains/.

FULL STEAM AHEAD FOR RAIL: WHY RAIL IS MORE RELEVANT THAN EVER FOR ECONOMIC AND ENVIRONMENTAL PROGRESS

WEDNESDAY, MARCH 10, 2021

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON RAILROADS, PIPELINES, AND HAZARDOUS MATERIALS,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC.

The subcommittee met, pursuant to call, at 11:05 a.m. in room 2167 Rayburn House Office Building and via Cisco Webex, Hon. Donald M. Payne, Jr. (Chair of the subcommittee) presiding.

Present: Mr. Payne, Mr. DeFazio, Mr. Malinowski, Mr. Moulton, Ms. Newman, Mr. Cohen, Mr. Sires, Ms. Wilson of Florida, Mr. García of Illinois, Ms. Strickland, Mrs. Napolitano, Mr. Johnson of Georgia, Ms. Titus, Mr. Huffman, Mr. Auchincloss, Mr. Stanton, Mr. Crawford, Mr. Perry, Mr. Rodney Davis, Mr. Bost, Mr. Weber, Mr. LaMalfa, Mr. Fitzpatrick, Mr. Balderson, Mr. Stauber, Mr. Burchett, Mr. Johnson of South Dakota, Mr. Nehls, and Mrs. Steel.

Mr. PAYNE. We come to order.

I ask unanimous consent that the chair be authorized to declare a recess at any time during today's hearing.

Without objection, so ordered.

For Members participating remotely, I want to remind you of key regulations from the House Committee on Rules.

Members must be visible on video to be considered in attendance, and to participate, unless experiencing connectivity issues.

Members must also continue to use the video function for the remainder of the time they are attending this meeting and hearing, unless experiencing connectivity issues or technical problems.

If a Member is experiencing any connectivity issues or other technical problems, please inform the committee staff as soon as possible so you can receive assistance.

A chat function is available for Members on the Cisco WebEx platform for this purpose.

Members can also call the committee's main phone line at 202–225–4472 for technical assistance by phone.

Members may not participate in more than one committee proceeding simultaneously. However, for security reasons, Members may maintain connection to the software platform while not in attendance.

It is the responsibility of each Member seeking recognition to unmute their microphones prior to speaking, and to keep their

microphone muted when not speaking to avoid inadvertent background noise. Should I hear any inadvertent background noise, I will request that the Member please mute their microphone.

As the chair of today's committee and hearing, I will make a good-faith effort to provide every Member experiencing connectivity issues an opportunity to participate fully in the proceedings.

And finally, to insert a document into the record, please have your staff email it to DocumentsT&I@mail.house.gov.

OK, so I now go to the opening statement, and I would like to say good morning to all the Members in attendance. I am honored to kick off the first subcommittee hearing of this Congress as the new chair of this subcommittee.

My district and my State are widely dependent on reliable rail service, both passenger and freight. As such, I am a major advocate for passenger and freight rail, not just in New Jersey, but across the Nation.

The work of this subcommittee is critical to protecting the safety and security of rail passengers and employees during and after this global pandemic. That is why we need to be forward-thinking about safety in order to avoid the types of preventable accidents that cost lives and harm the environment.

With the mandate to install Positive Train Control systems finally complete, I hope to see widespread safety improvements in the industry. In this subcommittee we will explore the ways that we can continue to improve these safety improvements.

In addition, we will review the need for Disadvantaged Business Enterprise programs within the rail space.

We hear a lot about ensuring equity in transportation, and it is time to turn that talk into actionable programs. But the critical component to the future of rail is modernization. It will lead to greater safety improvements, as well as more effective passenger transportation.

Also I want the subcommittee to explore the numerous ideas for high-speed rail. When I look at the gap between the United States and the rest of the world, I see potential. I would say that there are many opportunities for high-speed rail in the U.S. I remain determined to steer substantial Federal investment towards the U.S. rail system to expand rail opportunities that broaden our economic base.

Last year, Chairman DeFazio ushered H.R. 2 through the House, investing $600 billion in the U.S. rail system. I supported that bill, and the subcommittee is already redrafting a rail title for surface reauthorization, in anticipation of a major infrastructure push this year. We will get this done, and rail will be front and center. Today's hearing is the next step in that effort.

I am determined to highlight the importance of rail in today's complex surface transportation system.

The title of the hearing is "Full Steam Ahead for Rail: Why Rail is More Relevant than Ever for Economic and Environmental Progress." This is a throwback to the old steam engines that dominated the rail industry over 100 years ago. Too many people discount rail as a bygone era, but I don't think they understand the value that rail currently brings to our Nation. So we need everyone to understand the benefits that rail provides.

I hope to hear today's witnesses highlight the economic and environmental advantages that rail is responsible for. I want to learn more about the economic advantages of moving freight over the rails. I want to learn how we can increase the number of jobs that rail transportation supports nationwide, and how we can sustain the quality of these jobs.

Finally, I want to hear about the many ways rail can significantly reduce greenhouse gas emissions and further our Nation's fight against climate change.

I hope the members of this subcommittee get a better appreciation for the importance of passenger rail and freight rail today.

[Mr. Payne's prepared statement follows:]

Prepared Statement of Hon. Donald M. Payne, Jr., a Representative in Congress from the State of New Jersey, and Chair, Subcommittee on Railroads, Pipelines, and Hazardous Materials

Good morning. I'm honored to kick off the first subcommittee hearing of this Congress as the new Chair of this Subcommittee.

My district and my state are widely dependent on reliable rail service—both passenger and freight. As such, I'm a major advocate for passenger and freight rail, not just in New Jersey but across our country.

The work of this committee is critical to protecting the safety and security of rail passengers and employees, during and after this global pandemic.

That's why we need to be forward thinking about safety in order to avoid the types of preventable accidents that cost lives and harm the environment.

With the mandate to install positive train control systems finally complete, I hope to see widespread safety improvements in the industry. In this subcommittee, we will explore the ways we can continue to improve these safety improvements.

In addition, we will review the need for disadvantaged business enterprise programs within the rail space. We hear a lot about ensuring equity in transportation and it's time to turn that talk into actionable programs.

But the critical component to the future of rail is modernization. It will lead to greater safety improvements as well as more effective passenger transportation.

Also, I want the subcommittee to explore the numerous ideas for high speed rail. When I look at the gap between the United States and the rest of the world, I see potential. I'd say there are many opportunities for high speed rail in the U.S.

I remain determined to steer substantial federal investment towards the U.S. rail system to expand rail opportunities that broaden our economic base.

Last year, Chair DeFazio ushered H.R. 2 through the House, investing $60 billion in the U.S. rail system.

I supported that bill and the subcommittee is already redrafting a rail title for surface reauthorization in anticipation of a major infrastructure push this year. We will get this done and rail will be front and center.

Today's hearing is the next step in that effort. I am determined to highlight the importance of rail in today's complex surface transportation system.

The title of the hearing, "Full Steam Ahead for Rail: Why Rail is More Relevant Than Ever for Economic and Environmental Progress," is a throwback to the old steam engines that dominated the rail industry over a hundred years ago.

Too many people discount rail as a bygone era. But I don't think they understand the value that rail currently brings to our nation.

So, we need everyone to understand the benefits rail provides.

I hope to hear today's witnesses highlight the economic and environmental advantages that rail is responsible for.

I want to learn more about the economic advantages of moving freight over the rails.

I want to learn how we can increase the number of jobs rail transportation supports nationwide and how we can sustain the quality of these jobs.

Finally, I want to hear about the many ways rail can significantly reduce greenhouse gas emissions and further our nation's fight against climate change.

I hope the Members of this subcommittee get a better appreciation for the importance of passenger rail and freight rail today.

Rail benefits all of us—urban and rural, rich and poor, Republican and Democratic—by contributing to a more robust economy with fewer greenhouse gas emissions. It's a win-win.

So I hope you will all join me in the subcommittee's efforts to support and expand our freight and passenger rail systems.

Mr. PAYNE. OK, now I would like to call on the ranking member of the subcommittee, Mr. Crawford, for an opening statement.

Mr. CRAWFORD. There we go, thank you, Mr. Chairman. I want to congratulate you on your assumption of the leadership position in this subcommittee, and look forward to working with you in this Congress.

Our hearing today will examine the economic and environmental benefits of our robust American rail systems.

Railroads have always been an essential part of American economic development. They support a variety of industries in moving goods to market at home and abroad, including manufacturing, energy, and agriculture. Studies have found that the investments made by rail have supported approximately 1 million jobs, and $219 billion in economic output.

Rail is also considered one of the most fuel-efficient ways to move freight. On average, freight rail can move 1 ton of freight over 470 miles on 1 gallon of fuel. Freight rail's output of greenhouse gas emissions in the U.S. are some of the lowest, at less than 1 percent, and make up only 2.1 percent of overall transportation-related emissions.

During the COVID–19 pandemic, freight rail proved to be resilient and invaluable carriers of essential goods when they were needed most. Freight rail's significant contributions during this difficult period should be noted as we look toward future infrastructure investments.

As the committee works to advance its surface transportation priorities, I hope it considers how we can leverage the important value of the rail industry. In particular, we must ensure that freight railroads keep growing in an uninhibited manner so that Americans can continue to benefit from their irreplaceable contributions to our economy.

Thank you again to all of our witnesses for being here today, and I yield back the balance of my time.

[Mr. Crawford's prepared statement follows:]

Prepared Statement of Hon. Eric A. "Rick" Crawford, a Representative in Congress from the State of Arkansas, and Ranking Member, Subcommittee on Railroads, Pipelines, and Hazardous Materials

Thank you, Chair Payne, for holding this hearing, and thank you to our witnesses for participating today.

I want to congratulate Chair Payne on assuming leadership of the Subcommittee, and I look forward to working together with him this Congress.

Our hearing today will examine the economic and environmental benefits of our robust American rail systems. Railroads have always been an essential part of American economic development. They support a variety of industries in moving goods to market at home and abroad, including manufacturing, energy, and agriculture.

Studies have found that the investments made by rail have supported approximately 1 million jobs and $219 billion in economic output.

Rail is also considered one of the most fuel-efficient ways to move freight. On average, freight railroads can move one ton of freight over 470 miles on one gallon

of fuel. Freight rail's output of greenhouse gas emissions in the U.S. is among the lowest at less than one percent and make up only 2.1 percent of overall transportation-related emissions.

During the COVID–19 pandemic, freight railroads proved to be resilient and invaluable carriers of essential goods when they were needed most. Freight rail's significant contributions during this difficult period should be noted as we look towards future infrastructure investments.

As the Committee works to advance its surface transportation priorities, I hope it considers how we can leverage the important value of the rail industry. In particular, we must ensure that freight railroads keep growing in an uninhibited manner so that Americans can continue to benefit from their irreplaceable contributions to our economy.

Mr. PAYNE. Thank you. I now call on Chairman DeFazio, chairman of the overall committee, for a statement.

Mr. DEFAZIO. Thank you, Chairman Payne. And, again, congratulations on your first hearing. This is timely and of tremendous importance: examining how we can move people and freight more efficiently, without congestion, and how we can also at the same time be dealing with climate change and fossil fuel reduction.

We have already heard some statistics from the ranking member on the efficiency of rail. I did make the mistake once of saying to one of my constituents who owns a very large tug company about how rail is the most efficient way to move freight. And he corrected me that, actually, it is on the water. But water doesn't go everywhere that the freight and passenger rail network can go.

But this is a very, very exciting time for rail. I am particularly looking forward to hearing from Virginia. They are doing something that we proposed in last year's INVEST Act, and that is to look at a problem, a massive, massive congestion, I–95 coming into DC, down through Virginia. And they looked at it and said, "Wow, it will cost us about $10 or $15 billion to add lane-miles, and we will add lane-miles and then more people hop in their cars, and we will end up being congested again in 10 years." So they said, "Well, there might be another solution."

And then they began to look at rail investments, particularly with a new bridge over the Potomac River, a big, big choke point. This is expensive, but it turns out that it is actually more cost beneficial, and actually solves the problem, as opposed to temporarily delaying the problem with congestion in this particular corridor.

Now, this isn't going to be applicable everywhere in the United States. I mean, it is most applicable in very, very heavily congested areas like the Northeast, or around other major urban areas in the country.

According to Amtrak statistics, traveling on the electrified Northeast Corridor system emits 83 percent fewer greenhouse gas emissions than driving, and 73 percent fewer than flying. And Amtrak has pretty much taken over the market from DC to New York. They used to run the Delta shuttle every hour. I think someone else had a shuttle at the same time. So we have seen a dramatic reduction in carbon pollution.

People like traveling by rail. You are not strapped in a little, crummy seat. You don't have to deal with all the hassles of going to the airport. Even with all the problems we have in the Northeast Corridor with ancient, decrepit infrastructure—the Baltimore tunnel built in 1872, beautiful engineering work, made of brick, it

is raining inside the tunnel because of leaking water mains that are 100 years old.

Someday a tunnel is going to collapse, going to cut off the Northeast. We need to rebuild that tunnel, as well as make other major improvements on that line and also look around the country, where we can facilitate better movement of passenger rail in cooperation with freight.

That is what is so exciting about the project we are going to hear about from Virginia. CSX came to the table with VDOT, and they worked out something that is going to benefit both freight movement—which is way more efficient than trucks—and passenger movement, a win-win. I am hoping that the rest of the industry is attentive to this, because the law does say—because we took over the common carrier status in passenger rail from the railroads—that Amtrak is supposed to get preference.

But certainly out my way, where it takes about 3 or over 3 hours to get from my home city of Eugene to Portland, 112 miles—a train can go 120 miles an hour, it takes over 3 hours to get there. We have to see better coordination and cooperation between the industry and freight. And that is why it is so exciting to have this hearing today.

We will hear from BNSF and, hopefully we can be working on projects like this around the rest of the country, as we move forward, and as we build back better.

Thank you, Mr. Chairman. I appreciate the opportunity.

[Mr. DeFazio's prepared statement follows:]

Prepared Statement of Hon. Peter A. DeFazio, a Representative in Congress from the State of Oregon, and Chair, Committee on Transportation and Infrastructure

Thank you, Subcommittee Chair Payne and Ranking Member Crawford, for holding this hearing. Chair Payne, congratulations on your first hearing as Chair of the Subcommittee on Railroads, Pipelines, and Hazardous Materials. I know that access to great rail service is very important for your constituents, and you will be a strong advocate for them in your new role.

We are here today to discuss the importance of both passenger and freight rail service to our economy and our environment. Climate change is an existential threat to our very existence. Burying our heads in the sand is not going to work. We need to actively push for ways to mitigate emissions, and we need to be doing it now! Improved rail service can be part of the solution.

People are sick and tired of spending an hour and a half to drive 20 miles to get home from work. For years, the proposed solution to traffic was to add more highway lanes. But today we know that only creates "induced demand"—meaning the more lanes you add, the more drivers you attract, creating a vicious cycle of more congestion, more carbon pollution, more time wasted sitting in traffic.

According to Amtrak's statistics, traveling on the electrified Northeast Corridor system emits 83 percent fewer GHG emissions than driving and up to 73 percent fewer than flying. As a result, we need to start looking at rail as a central part of the solution to congestion. That is why the Moving Forward Act included a $60 billion rail title that was heavily focused on passenger rail investments and created a number of new multi-modal programs that include passenger rail eligibility.

At today's hearing, we will hear testimony from the Virginia Secretary of Transportation about some of the rail investments the state of Virginia will be making in the coming years, and how a project like Long Bridge can help clear bottlenecks to improve passenger and freight service throughout the Northeast corridor and beyond. Instead of just adding more lanes to Interstate 95, the state is making the smart choice to invest in rail.

Likewise, rail tops the list of the most efficient ways to move freight, second only to barges. Rail customers are tracking the overall carbon footprint of their goods

movements, and corporate boards and shareholders are pushing for a greener supply chain—this all leads to an opportunity for freight rail. Freight railroads of all sizes should look to seize the moment not only because it's better for our environment, but because it's better for business.

Finally, railroads are a source of good-paying jobs with great benefits that are capable of supporting middle class families. It's no coincidence that this industry has a high rate of union representation. About 84 percent of Class I railroad employees are represented by a labor union, as are roughly 85 percent of Amtrak's workers.

The importance of those jobs reaches beyond the direct benefit to workers—they extend into the communities where workers spend their money, supporting local economies. Any consideration of the economic benefits of rail must include these downstream effects, as well as the many construction jobs created by rail expansion.

The rail industry is well positioned to be part of the solution to addressing climate change and growing our economy. I look forward to hearing from our witnesses today about these important issues.

Mr. PAYNE. Thank you, Mr. Chairman. We appreciate your leadership in this area.

And I would like to remind Members in the committee hearing room to wear their masks at all times, including while speaking. Thank you for your cooperation in this matter.

I would like to welcome the witnesses on our panel: Ms. Shannon Valentine, secretary of transportation for the Commonwealth of Virginia; Ms. Caren Kraska, president and chairman of the Arkansas and Missouri Railroad; Mr. Greg Regan, president of the Transportation Trades Department, AFL–CIO; and Mr. Tom Williams, group vice president of Consumer Products, BNSF Railway.

Thank you for joining us today, and I look forward to your testimony.

Without objection, our witnesses' full statements will be included in the record.

Since your written testimony has been made a part of the record, the subcommittee requests that you limit your oral testimony to 5 minutes.

We will first hear from Ms. Valentine.

You may proceed.

TESTIMONY OF SHANNON VALENTINE, SECRETARY OF TRANSPORTATION, COMMONWEALTH OF VIRGINIA; CAREN KRASKA, PRESIDENT AND CHAIRMAN, ARKANSAS AND MISSOURI RAILROAD, ON BEHALF OF THE AMERICAN SHORT LINE AND REGIONAL RAILROAD ASSOCIATION; GREG REGAN, PRESIDENT, TRANSPORTATION TRADES DEPARTMENT, AFL–CIO; AND TOM G. WILLIAMS, GROUP VICE PRESIDENT, CONSUMER PRODUCTS, BNSF RAILWAY COMPANY

Ms. VALENTINE. Thank you. Good morning, Chairman DeFazio. Thank you for those opening remarks from Virginia. Chairman Payne, Ranking Member Crawford, members of the Railroads, Pipelines, and Hazardous Materials Subcommittee, thank you for the opportunity to testify today on behalf of the Commonwealth of Virginia and our $3.7 billion Transforming Rail in Virginia initiative.

Under this program, the Commonwealth will construct a bridge over the Potomac dedicated to passenger rail, acquire 386 miles of rail right-of-way and 223 miles of track, and invest more than $1 billion in infrastructure over the next decade. Our purpose: to expand and improve passenger, commuter, and freight rail; establish

a pathway to separate passenger and freight operations; and create a vital link in our national rail network by connecting the Northeast and Southeast Corridors.

It was an honor to announce this innovative partnership with CSX, Amtrak, and the Virginia Railway Express (VRE) in December of 2019. Over these past 14 months, Virginia has worked diligently and deliberately to finalize all agreements to complete this multilateral initiative.

Why is Virginia investing in rail?

Simply put, the Northam administration has prioritized projects that will move as many people and goods as possible across all modes of transportation in an equitable and environmentally sustainable manner. It is a multimodal approach to creating an economy that works for all people.

One of the worst rail bottlenecks, mentioned by Chairman DeFazio, along the east coast is at the Potomac River between Virginia and DC, and it is called the Long Bridge, which is owned by CSX. The bridge carries all passenger, commuter, and freight rail along the corridor, nearly 80 trains a day, and is at 98 percent capacity during peak periods. Due to these constraints, Virginia has been unable to expand passenger rail service, even though demand prior to the pandemic was reaching record highs.

At the same time, Virginia has been engaged in corridor planning studies, one of which was the I–95 corridor, which, as you all know, is heavily congested. Even today, as we emerge from this pandemic, traffic has returned to 90 percent of prepandemic levels. Through the study we learned that adding just one lane in each direction for 50 miles would cost $12.5 billion.

While the cost was staggering, the most sobering part of the analysis was that, by the time the construction was complete in 10 years, the corridor would be just as congested as it is today. That finding is what led Virginia to rail—a mode that could provide the capacity at one-third of the cost.

With a willing partner in CSX, the Commonwealth reached out to Amtrak and VRE to join us in this unique opportunity to be phased in over 10 years, which will double Virginia-supported Amtrak trains, providing nearly hourly service between Richmond and DC; increase VRE commuter service by 60 percent; lay the foundation for a southeast high-speed rail corridor; and increase the potential to expand rail to all parts of our Commonwealth.

Equally important, this is being done in cooperation with the host railroad, increasing reliability and capacity for both freight and passenger. We are working collaboratively with CSX to create that win-win. And as we create this opportunity, we are also moving more goods and people in an environmentally sustainable way.

According to APTA, rail travel emits up to 83 percent fewer greenhouse gases than driving, and up to 73 percent fewer than flying. In addition, a study by George Mason University estimates the construction of a new Long Bridge will generate more than $6 billion in additional economic impact in northern Virginia and the Greater Washington region each year.

Benefits can also be measured by increased access to jobs and improving the quality of life. The new service plan includes late night and weekend service, because many essential jobs are not 9

to 5, Monday through Friday. That is why we worked to add trains leaving Washington in the late evening and on weekends, matching train schedules to the reality of our economy.

With a commitment of State and regional funds, $200 million in VRE funding, and $944 million in Amtrak funding, the Commonwealth has been able to produce a $3.7 billion financial plan. With additional funds we could fully build out the Washington-to-Richmond corridor, upgrade the east-west freight route, and develop the S-line that will cut travel between Raleigh and Richmond by 90 minutes.

We——

Mr. PAYNE. Please wrap.

Ms. VALENTINE [continuing]. Continue to deliberate——

Mr. PAYNE. Please wrap up.

Ms. VALENTINE. I will. I ask you to consider a capital grant program.

In closing, I will just say that I really thank you for this opportunity, and I welcome your questions.

[Ms. Valentine's prepared statement follows:]

Prepared Statement of Shannon Valentine, Secretary of Transportation, Commonwealth of Virginia

Chairman Payne and Members of the Rail Subcommittee:

Thank you for the opportunity to testify today on behalf of the Commonwealth of Virginia and our $3.7 billion Transforming Rail in Virginia initiative. Under this program, the Commonwealth will construct a $1.9 billion bridge over the Potomac dedicated to passenger rail, acquire 386 miles of rail right-of-way and 223 miles of track, and invest an additional $1 billion in rail infrastructure projects over the next decade. Our purpose in doing so is to expand and improve passenger, commuter, and freight rail service, establish a pathway to separate passenger and freight operations, and create a vital link in our national rail network by connecting the Northeast and Southeast corridors.

It was an honor to be with Governor Northam to announce this innovative partnership with CSX, Amtrak, and Virginia Railway Express (VRE) in December 2019. Over these past 14 months, the Commonwealth has worked diligently and deliberately to finalize the definitive agreements, environmental permits, and legislative requirements to complete this multilateral initiative. And today, I am pleased to report to this Committee that we are in the final hours of completing this work.

BACKGROUND

I believe it would be helpful for this Committee to understand *why* Virginia is investing in rail. Simply put, Governor Northam and our Administration have prioritized projects that will move as many people and goods as possible across all modes of transportation in an equitable, environmentally sustainable manner, with a focus on job retention and creation.

This is a multimodal approach for creating an economy that works for all people—which is why Virginia supported HR 2, the Moving Forward Act, and its new Passenger Rail Improvement, Modernization, and Expansion (PRIME) grants. These grants would provide $19 billion over 5 years for passenger rail improvement and expansion projects. We believe these grants should be administered in a manner similar to FTA's 5309 Capital Investment Grant Program so that larger projects or a program of projects could receive multi-year, full-funding grant agreements to match significant state and local investments, allowing states to properly plan for large-scale intercity passenger rail projects.

Before I became Secretary of Transportation, I had the privilege of serving in the Virginia General Assembly and on the Commonwealth Transportation Board. I saw first-hand the growth in all modes of transportation across Virginia—highways, transit, rail, ports, and aviation. I had the opportunity to lead the legislative effort to launch the first state-supported Amtrak train in 2009 anchored in Lynchburg, Virginia—a pilot that has now expanded to 6 trains and 4 routes—Richmond, New-

port News, Norfolk, and Roanoke—all connecting to Washington, DC, and the Northeast Corridor.

HOW DID WE GET HERE?

One of the worst rail bottlenecks along the East Coast is at the Potomac River crossing between Virginia and Washington, DC, which is called the Long Bridge. The two-track Long Bridge was built in 1904 and reinforced in 1942. The bridge and tracks on both sides of the Potomac are owned by CSX railroad. The bridge carries all passenger, commuter, and freight trains along the corridor, including the North Carolina state-supported service and five long-distance routes.

The construction of a new, two-track Long Bridge is the centerpiece of our Transforming Rail in Virginia capital investments. The current bridge is the only rail connection linking the Southeast and the Northeast, with the closest rail bridge being more than 70 miles away (as the crow flies), carrying nearly 80 trains a day with capacity at 98 percent during peak hours. This constrains Amtrak and VRE from adding more trains to accommodate passenger demand which, prior to the pandemic, was reaching record highs. In 2019, VRE was averaging more than 19,000 trips a week, and Amtrak carried nearly 1 million riders on our state-supported routes that year—a 680 percent increase since the inception of this service in 2009. While this momentum was interrupted by the pandemic, a recent Greater Washington Partnership survey indicated that, while 58 percent of the region's employers have implemented full-time telework, only one percent expect their employees to continue to work remotely full time once we emerge from the pandemic. With current traffic on our highways nearing pre-pandemic levels, we believe we are presenting a solution for today and for generations to come. However, without a second Long Bridge, the Commonwealth would not be able to grow its current service or expand to new areas.

To allow the entire rail network to operate efficiently, we are also making investments south of the bridge to improve reliability and create a path for separating passenger and freight rail—a four-track corridor north of Alexandria, a third-track corridor north of Lorton, including a bypass at Franconia, and six additional sidings—all to resolve conflicts along the rail network. While this initial scope (Phases 1 and 2 on the attached map) does not provide for a complete dedicated track separation, our ultimate long-term goal is to identify partners and seek funding to complete a four-track corridor from Washington to Richmond, with two tracks dedicated to passenger trains and two to freight trains.

Corridor Planning Studies

Since 2018, the Commonwealth has engaged in corridor planning studies that analyze all modes of transportation across the north-south I–81 and I–95 corridors as well as the east-west I–64 and I–66 corridors. As most know all too well, the I–95 corridor is heavily congested. Even today, as we emerge from this pandemic, traffic has returned to 90 percent of pre-pandemic levels. Prior to the pandemic, on a daily basis, cars and buses carried more than 350,000 people, trucks carried more than 271,000 tons of freight, trains carried 83,000 tons of freight, and Metro, VRE, and Amtrak trains carried more than 112,000 passengers through this corridor.

The I–95 Study analyzed many potential improvements to this critical corridor. It found that widening I–95 by one lane in each direction for 50 miles would cost $12.5 billion. While the cost was staggering, the most sobering part of the analysis was that by the time construction was completed in 10 years, the corridor would be just as congested as it is today. That finding is what led Virginia to rail—a mode of transportation that could provide the additional capacity along the corridor at a third of the cost. With a willing partner in CSX, we joined together in thinking outside of the box and discussions began. As these discussions continued, we reached out to Amtrak and VRE to join us in the unique opportunity I am presenting to you today.

TRANSFORMING RAIL IN VIRGINIA PROGRAM: PASSENGER AND COMMUTER RAIL

Virginia negotiated improvements with CSX to increase service levels. These improvements, phased in over 10 years, will:

- Double Virginia-supported Amtrak trains;
- Provide nearly hourly Amtrak service between Richmond and Washington, DC;
- Increase VRE commuter service by 60 percent along the I–95 Corridor, with 15-minute intervals during peak periods, and introduce weekend service;
- Increase Amtrak service to Newport News and allow for an improved schedule for a third Amtrak train to Norfolk;

- Lay the foundation for Southeast High Speed Rail through the acquisition of an abandoned S-line which runs from Petersburg into North Carolina;
- Preserve the existing Buckingham Branch freight corridor between Doswell and Clifton Forge for future east-west passenger service;
- And create the potential to expand rail service to all parts of our Commonwealth, including Southwest Virginia, that can now be unlocked by the construction of a new Long Bridge across the Potomac.

Transforming Rail in Virginia: Freight Rail

What is also transformative is that this initiative is being done in cooperation with the host freight railroad, as this agreement increases capacity, reliability, and fluidity for BOTH freight and passenger rail. Rather than increase passenger rail at the expense of throughput capacity for freight operators, we have worked collaboratively with CSX to create a "win-win" for both freight and passenger rail.

The rail industry generates more than $73 billion in economic output to the Commonwealth each year. The Port of Virginia in the Hampton Roads region handles 4 million containers annually from all around the world. Currently, the Port moves a greater percentage of containers by rail—35 percent—than any other port along the East Coast, with a goal of increasing that movement to 40 percent. The construction of a new Long Bridge opens freight capacity on the existing bridge. Without this added capacity, freight trains alone in 2040 will experience more than 10 times the current delay.

Environmental Benefits

As we create infrastructure for passenger, commuter, and freight rail, we also are moving more goods and more people in an environmentally sustainable way. According to the American Public Transportation Association (APTA), rail travel emits up to 83 percent fewer greenhouse gases than driving and up to 73 percent fewer than flying. The Long Bridge Environmental Impact Statement states that CSX is planning to expand from 18 trains per day now to 42 in 2040. For a company that moves one ton of freight 508 miles on a single gallon of gas, this provides four times the fuel savings and environmental benefits than moving freight on our highways.

The total truck Vehicle Miles Traveled—VMT—reduced by the Long Bridge project alone in the fifth year after construction is 482 million. VMT reduced for cars is 332 million in that fifth year. This results in a reduction of 66 million gallons of diesel fuel and 10 million gallons of gas in that year.

A cost-benefit analysis developed by consultant Kimley-Horn reveals that in that fifth year, the Commonwealth would experience environmental benefits in terms of:

- 474,000 metric tons of carbon dioxide emissions avoided due to moving freight by rail, and
- 90,000 metric tons of carbon dioxide emissions avoided due to passenger rail trips added,
- for a total value of avoided carbon emissions of 564,000 metric tons.

These are not cumulative statistics, but simply represent the environmental benefit in a single year.

Creating an Economy that Works for all People

The Long Bridge construction reaches beyond the benefits to the rail and road networks and the environment. A study by George Mason University estimates that construction of a new Long Bridge will have exponential economic impacts. Construction of the Long Bridge project—and the resulting increase in passenger trains—is expected to facilitate more than $6 billion in additional economic activity in the Northern Virginia and Washington, DC, region each year.

The program's benefits can also be measured by increased access to jobs and improvement in quality of life. The new service plan for Amtrak and VRE includes late-night and weekend service for an important reason. We know that many jobs—especially in the service sectors—are not 9 to 5, Monday through Friday. That is why we worked with CSX, Amtrak, and VRE to add trains leaving Washington in the late evening as well as on the weekends. We needed to match train schedules to the reality of our economy. In addition, construction of the new Long Bridge will open up the possibility for "run through" service of commuter trains between Maryland and Virginia. While these services are not yet funded, these are the types of opportunities and partnerships created by this project.

Capital Grant Program Needed for Intercity Passenger Rail Infrastructure

While the Commonwealth funds 100 percent of the operating cost of state-supported trains, per the 2008 PRIIA guidelines, and applies for funding from various

INFRA, BUILD, CRISI, and other USDOT programs to expand rail, there is no major, long-term, predictable funding program to assist states with the capital costs needed to expand state-supported passenger rail initiatives.

Through a commitment of state funds, regional funds, state priority transportation funds, more than $200 million in VRE funding, and $944 million in Amtrak funding, the Commonwealth was able to produce a $3.7 billion financial plan. With additional funding, we could fully build out the Washington to Richmond corridor, upgrade the Buckingham Branch corridor, and develop the S-Line that will cut travel time from Raleigh to Richmond by 90 minutes and bring the Southeast closer to the Northeast.

As you continue to deliberate the crafting of a surface transportation bill, I again ask you to consider a capital grant program—such as the PRIME grant program—that would assist states in expanding passenger rail by funding at least 50 percent of the capital costs needed for these expansion projects. According to APTA, every $1 billion invested in rail creates 24,000 highly skilled jobs and every $1 invested generates $4 in wider economic benefits.

CLOSING

I would be remiss if I did not thank Chairman DeFazio, Representative Norton, and Members of this Committee for including in last year's HR 2 a provision that authorized the National Park Service to convey land to Virginia and the District of Columbia for the purpose of constructing a rail bridge. Roughly four acres of NPS land adjacent to the current CSX track is needed for the new Long Bridge project, and bipartisan House support and passage of the provision in HR 2 went a long way in ensuring the provision was included in the year-end Omnibus Appropriations bill.

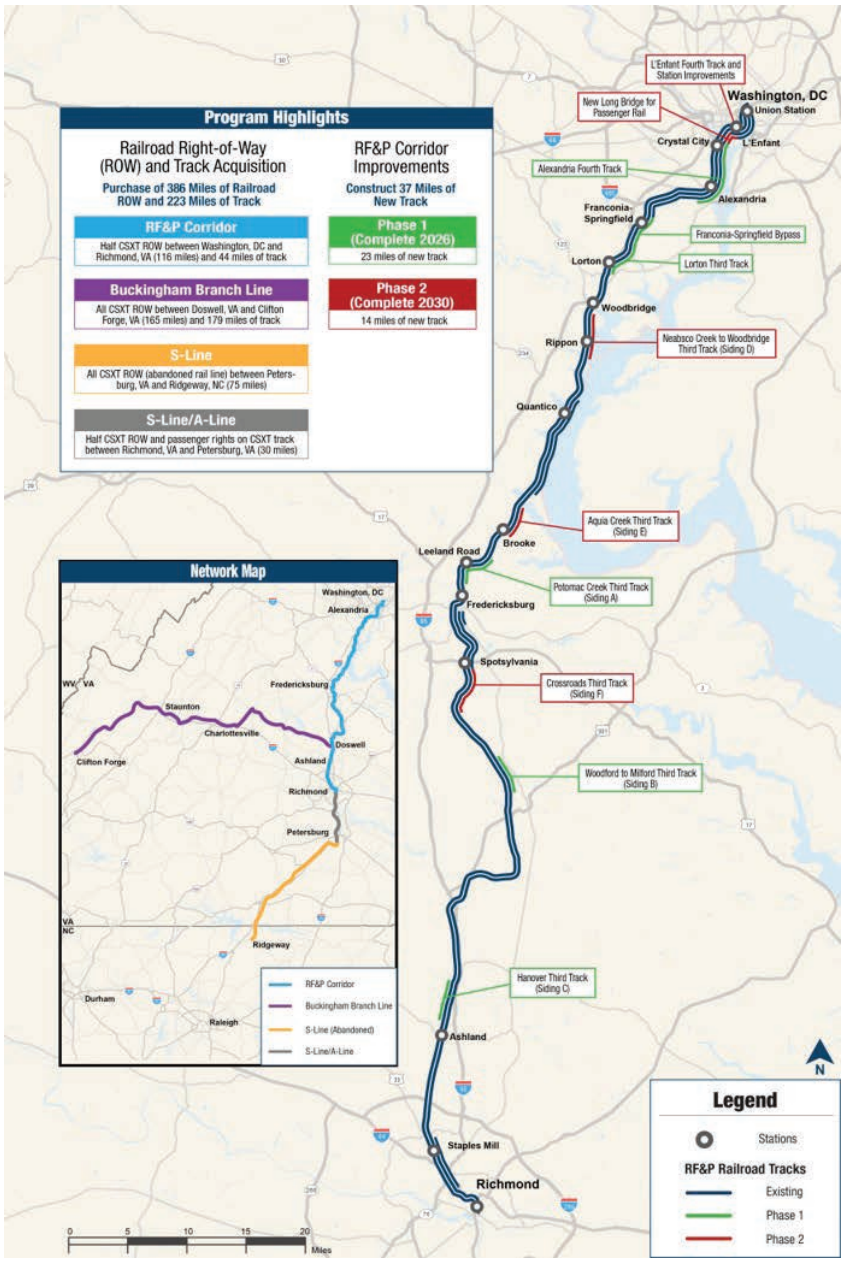
In closing, I want to share a statistic that I shared at the 10-year anniversary of the inauguration of that first state-supported route in Lynchburg, Virginia.

In 2009, rail reached 49 percent of Virginians and 53 percent of jobs.

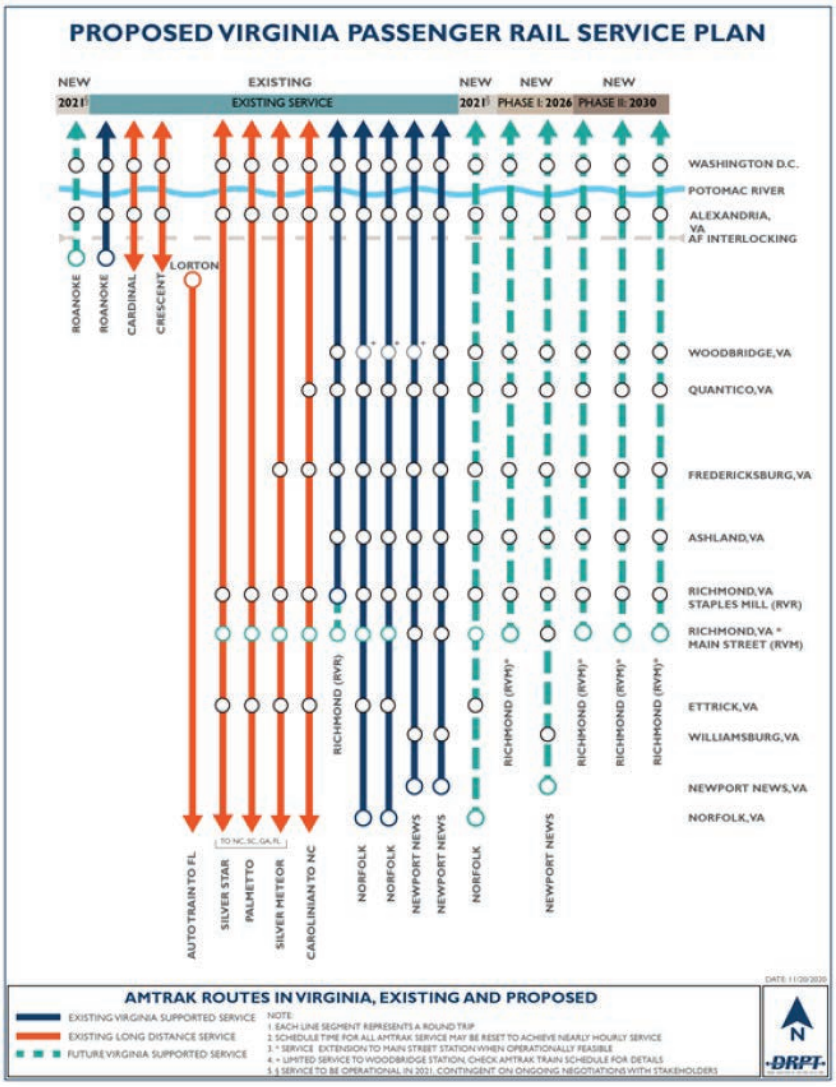
Today, rail reaches 77 percent of Virginians and 88 percent of jobs.

In other words . . . not enough.

I thank you for this opportunity to testify before you today and sincerely look forward to working with you now and in the future. I would be pleased to answer your questions.



After completion of Phases 1 and 2, Phases 3 and 4 would complete the dedicated 3rd track to Spotsylvania, which is the end of the VRE Service area.


PROPOSED VIRGINIA PASSENGER RAIL SERVICE PLAN
NEW
2021
EXISTING
EXISTING SERVICE
NEW
2021
NEW
PHASE I: 2026
NEW
PHASE II: 2030
WASHINGTON D.C.
POTOMAC RIVER
ALEXANDRIA, VA
AF INTERLOCKING
WOODBRIDGE,VA
QUANTICO,VA
FREDERICKSBURG,VA
ASHLAND,VA
RICHMOND,VA STAPLES MILL (RVR)
RICHMOND,VA * MAIN STREET (RVM)
ETTRICK,VA
WILLIAMSBURG,VA
NEWPORT NEWS,VA
NORFOLK,VA
ROANOKE
ROANOKE
CARDINAL
CRESCENT
LORTON
AUTO TRAIN TO FL
TO NC, SC, GA, FL
SILVER STAR
PALMETTO
SILVER METEOR
CAROLINIAN TO NC
RICHMOND (RVR)
NORFOLK
NORFOLK
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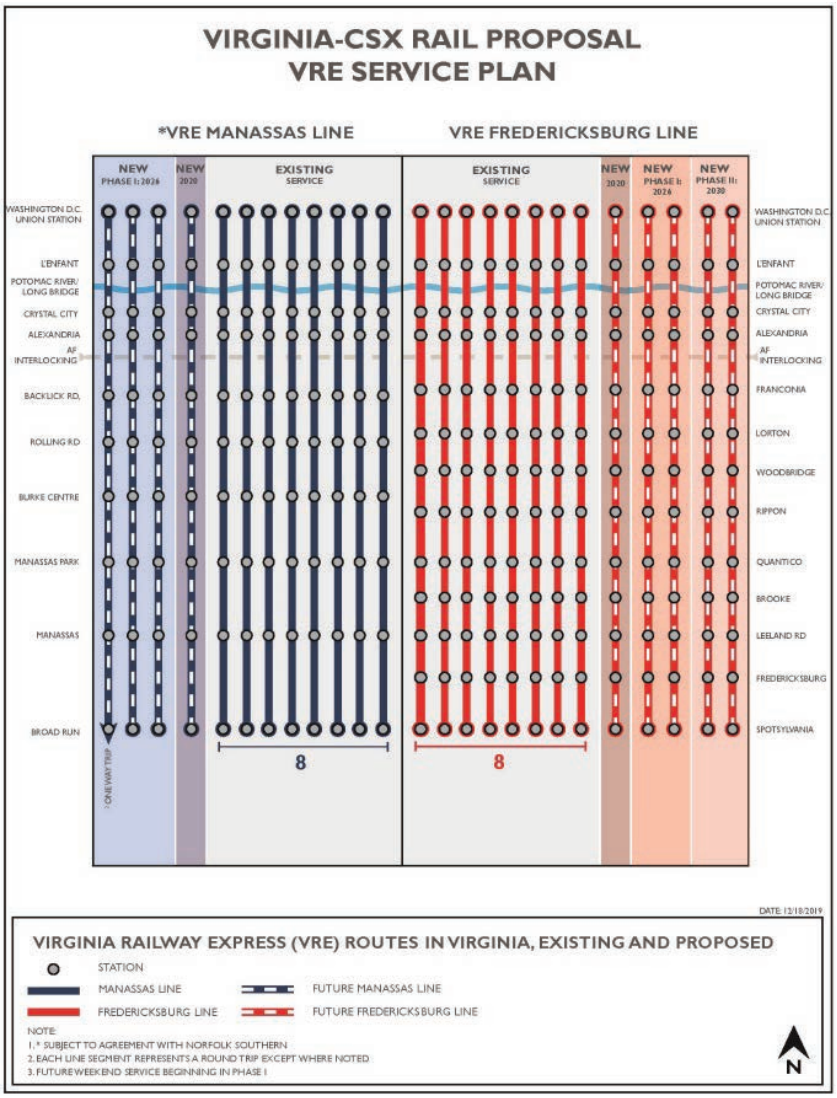
RICHMOND (RVM)*
RICHMOND (RVM)*
RICHMOND (RVM)*
AMTRAK ROUTES IN VIRGINIA, EXISTING AND PROPOSED
EXISTING VIRGINIA SUPPORTED SERVICE
EXISTING LONG DISTANCE SERVICE
FUTURE VIRGINIA SUPPORTED SERVICE
NOTE:
1. EACH LINE SEGMENT REPRESENTS A ROUND TRIP
2. SCHEDULE TIME FOR ALL AMTRAK SERVICE MAY BE RESET TO ACHIEVE NEARLY HOURLY SERVICE
3. * SERVICE EXTENSION TO MAIN STREET STATION WHEN OPERATIONALLY FEASIBLE
4. + LIMITED SERVICE TO WOODBRIDGE STATION, CHECK AMTRAK TRAIN SCHEDULE FOR DETAILS
5. § SERVICE TO BE OPERATIONAL IN 2021, CONTINGENT ON ONGOING NEGOTIATIONS WITH STAKEHOLDERS
N
DRPT

VRE SERVICE PLAN



Mr. PAYNE. Thank you very much. Next we will hear from Ms. Kraska.

You have 5 minutes.

Ms. KRASKA. Thank you. I am Caren Kraska, president and chairman of the Arkansas and Missouri Railroad, speaking on behalf of the Nation's 600 Class II and III railroads. These railroads operate in 49 States, over nearly 50,000 miles of track, or approximately one-third of the Nation's railroad network. In 36 States, short lines operate at least one-quarter of the State's rail network.

New Jersey is 1 of the 10 States where short lines operate more than 70 percent of the State's rail network. My home State of Arkansas has 23 short line railroads. Twenty-eight of the thirty-three members of this subcommittee have a short line in their district.

Short lines are most often associated with smalltown and rural America. But they also serve large, urban areas in many of the Nation's busiest ports, including Miami, Los Angeles, Long Beach, Hampton Roads, New York, and New Jersey. Short lines operate freight traffic over two of the busiest commuter rail corridors in the country.

The lexicon of railroading permeates American vocabulary. While many of those phrases carry a negative connotation—he was "railroaded," the project was a "train wreck," the talks were "derailed"—I much prefer your committee's selection from that lexicon: "full steam ahead for rail." That phrase captures the attitude of short line entrepreneurs endeavoring to preserve and grow what began as the Nation's most vulnerable railroad infrastructure, and what is today a huge American success story.

For those of you new to this story, let me give you four defining characteristics of today's short lines. Most short lines operate track that was headed for abandonment. As money-losing lines, they received little capital investment by their previous Class I owners. To be successful, short lines invest up to 33 percent of their annual revenues in maintaining and rehabilitating their infrastructure. As confirmation, you only need to talk to Chairman DeFazio, who for years made it his personal mission to put together the millions of Federal, State, and local dollars needed to save the Coos Bay line.

For large areas of the country, short line railroad service is the only connection to the national railroad network. While my Arkansas frozen poultry shippers cannot complete the journey to west coast ports for export without Class I service, they cannot start that journey without short line service.

Flexible local service is a key driver of our success. We deal face-to-face with our customers, and can respond quickly to their needs. For example, my railroad serves George's Inc. facilities in Arkansas and Missouri. They need feed corn for poultry, and lots of it, consistently. When the local harvest is good, they truck the corn from local sources. But when the harvest is not, the customer needs to shift gears. So they turn to us to bring in unit trains of corn from grain-producing States.

Short lines are small businesses. Our combined annual revenues are less than the annual revenues of any single one of the Nation's four largest Class I railroads.

Before I talk about what short lines can do, let me take a moment to thank you for what you have already done. The members of the Transportation and Infrastructure Committee, past and present, played a critical role in making the short line rehabilitation tax credit permanent in 2020, so that it will continue to help us rebuild our infrastructure. It is, as you suggest, full steam ahead for rail. And your support for the tax credit has given us a full head of steam as we move forward. For that, we are most grateful.

My fellow railroad panelist will highlight the substantial economic and environmental benefits of the railroad industry writ large. I will put a short line spin on some of those.

For thousands of communities across the country, short line rail service is the only connection to the national railroad network, and this connection is an economic lifeline. Short lines lower transportation costs for shippers. One railcar holds the equivalent of three to four truckloads. For example, on my railroad, a shipper's cost to move a ton of freight 54 miles from Butterfield, Missouri, to Springdale, Arkansas, is approximately one-third of the truck rate.

The environmental benefits of rail transportation have been well documented. You will hear those statistics from my Class I colleague, particularly with regard to fuel efficiency. And those statistics also apply to short lines.

We do not know what programs you will be considering in an infrastructure bill. So my written testimony touches on how today's programs can best be used by short lines. I also list a variety of general principles that will maximize our ability to make the best use of whatever programs you end up including, be they current or new.

I appreciate the opportunity to present the short line perspective, and would conclude with a personal observation. I am a businesswoman running a small business, and I do not pretend to understand the pressures, processes, and politics that govern your world. I was, however, involved in the decades-long effort to extend and then make permanent the short line tax credit. And I learned an important lesson from that experience: regardless of party control, and often in the face of fierce partisan battles, our chief congressional sponsors never wavered in their commitment to sticking together in bipartisan support of the legislation.

It showed me that Government works when you work hard at working it out. We need that today more than ever. And I hope that can be the spirit in which you approach creating a much-needed infrastructure package.

Thank you very much.

[Ms. Kraska's prepared statement follows:]

Prepared Statement of Caren Kraska, President and Chairman, Arkansas and Missouri Railroad, on behalf of the American Short Line and Regional Railroad Association

I am Caren Kraska, President and Chairman of the Arkansas and Missouri Railroad (A&M). I am speaking on behalf of the American Short Line and Regional Railroad Association (ASLRRA), the trade association representing the nation's 600 Class II and III railroads. These railroads operate in 49 states over nearly 50,000 miles of track, or approximately one third of the nation's railroad network. Short lines are often called the first mile/last mile of the nation's railroad system and handle in origination or destination one out of every five rail cars moving on the national system. In 36 states short lines operate at least one quarter of the state's rail network. Chairman Payne's State of New Jersey is one of ten states where short lines operate more than 70% of the state's rail network—11 short line railroads operating nearly 800 miles of track. In Ranking Member Crawford's state of Arkansas, my home state, there are 23 separate short line railroads—we work in tandem with the 3 Class I's in the state to provide Arkansas with a world class freight rail network.

Twenty-eight of the 33 Members of this Subcommittee have a short line in their District. As examples, I've attached maps of short lines in the home states of Chair-

man DeFazio, Ranking Member Graves, Chairman Payne, and Ranking Member Crawford.

Although short lines are most often associated with small town and rural America, they also serve large urban areas and many of the nation's busiest ports, including Miami, Los Angeles and Long Beach, Hampton Roads, and New York/New Jersey. Likewise, various short line railroads operate as neutral terminal switching carriers for multiple Class I railroads in Chicago, New Orleans and St. Louis. The Chicago South Shore and South Bend Railroad and the Long Island Railroad operate freight traffic over two of the busiest rail commuter corridors in the country.

The name "short line" can create the mistaken impression that these railroads are all very short rail lines. The fact is we come in all sizes. The Tyburn Railroad in Congressman Brian Fitzpatrick's District is 1.5 miles long. The Rapid City, Pierre & Eastern Railroad in Congressman Dusty Johnson's District is 743 miles long. In Florida, Iowa, Massachusetts, Michigan, Minnesota, Montana, New Hampshire, South Dakota, and Vermont short lines operate track that stretch almost the entire length or breadth of the state.

Regardless of our size or our geographic location, our common denominator is that we operate track that was not viable under the structure of the larger national Class I railroads, that we run small efficient operations, that we stay very close to our customers, and that we hustle, fight, scratch and claw for every last carload of stuff we can get our hands on. We are obsessed with growth and want every piece of business that comes our way.

My own railroad operates 150 miles of track from Monett, Missouri to Fort Smith, Arkansas, employs 66 people and handles 32,000 carloads annually. We serve 75 customers on that 150 miles and, in conjunction with our Class I connections, deliver or receive their products to and from states as far away as California, Florida, New Jersey, and Washington State.

The A&M also runs excursion trains in a very scenic portion of northwest Arkansas. Approximately 36,000 people ride these trains in a normal year.

The lexicon of railroading permeates American vocabulary. While some of those phrases carry a negative connotation—he was "railroaded", the project was a "train wreck", the talks were "derailed", it's the "end of the line" for you, I much prefer your Committee's selection from that lexicon—"Full Steam Ahead for Rail." That is the phrase that captures the attitude of short line entrepreneurs endeavoring to preserve and grow what began as the nation's most vulnerable railroad infrastructure and what is today a huge American success story.

Those of you who have served on this Committee are very familiar with that story and have contributed much over the years to that success. For those of you who are new to this story, let me comment briefly on four defining characteristics of the today's short lines.

Most short lines operate track that was headed for abandonment under previous Class I owners. These were light density lines that could not make enough money under the cost structure of the big national carriers. They served customers that were located "off the beaten path" for the large railroads and that typically shipped smaller volumes. Because these were marginal or money losing lines, they understandably received little or no capital investment by their previous owners, resulting in deferred maintenance. To be successful, short line owners must not only eliminate that deferred maintenance but must upgrade the track to handle the heavier, longer trains operated by our Class I connecting partners. To do that, short lines invest on average from 25% to 33% of their annual revenues in maintaining and rehabilitating their infrastructure, and this makes short line railroading one of the most capital-intensive industries in the country. You need only talk to Chairman DeFazio to confirm the significance of this fact. For years he made it his personal mission to save the Coos Bay Rail line that was on the verge of being sold for scrap after decades of troubles. The line's crumbling infrastructure, and a very problematic tunnel in the middle of the line, required a herculean effort to bring together tens of millions of dollars of federal, state, local and private resources needed to fund the necessary rehabilitation. After being closed down completely, the line was re-opened in 2011. There is still work to be done, but the rail line now moves the equivalent of 16,500 truckloads annually and serves as a critical link to the local port, connecting Oregon's lumber industry to the national economy.

Our importance is not our size or our total market share but in who and where we serve. For large areas of the country and particularly for rural and small-town America, short line railroad service is the only connection to the national railroad network. For the businesses and farmers in those areas, our ability to take a 25-car train 75 miles to the nearest Class I interchange is just as important as the Class I's ability to attach that block of traffic to a 100-car unit train and move it across the country. While my Arkansas frozen poultry shippers cannot complete the

journey to West Coast ports for export without Class I service, they cannot start that journey without short line service.

Flexible local service is a key driver of our success. One reason short lines can make a go of it where the Class I's cannot is our ability to deal face to face with customers and offer the flexible service their businesses require. Large national railroads running thousands of trains a day over long distances are not particularly well suited to the needs of the small businesses we serve. For example, my railroad serves George's Inc. facilities in Springdale, AR and Cassville, MO. They need corn for feed, and lots of it, consistently. When the local harvest is good, they truck in the corn from local sources. But when the harvest is not good, the customer needs to shift gears, so they turn to us to bring in unit trains of corn from states where the corn harvest is more abundant, such as Iowa, Nebraska, Minnesota, and Kansas.

Short lines are small businesses. Our combined annual revenues are less than the annual revenues of each one of the nation's four largest Class I railroads. All Class II and III railroads in the U.S. meet the Small Business Administration's small business industry size standard. The average short line employs 30 people or less, and a significant number run with fewer than a dozen employees. Like all small businesses, we are forced to do more with less. A very large number of our customers are also small businesses, who depend on the economics of rail service and direct connections to the rail network that we provide to remain competitive in a cutthroat global economy.

Your hearing today is exploring the ways rail can contribute to the nation's economic and environmental progress going forward. Before I talk about what short lines can do, let me take a moment to thank you for what you have already done to help us move forward. In 2004 Congress enacted a short line rehabilitation tax credit to maximize private investment to repair and upgrade our track and bridges, to help realize the full potential of the benefits we could provide the country. The original term of the provision was three years, and it was temporarily extended six times since first enacted. In the last Congress legislation was introduced to make the credit permanent. It was one of the most heavily co-sponsored pieces of legislation in the 116th Congress, with a bi-partisan majority of 303 Representatives. The T&I Committee and particularly your Rail Subcommittee led the way in this effort. Almost every one of your Members co-sponsored the legislation and you were constant cheerleaders on our behalf. The credit was made permanent in December of 2020. As I noted at the outset, short line railroading is one of the most capital-intensive industries in the country. We were old infrastructure operating in a new world and the tax credit was and will continue to be a critical element in helping us preserve and rebuild that infrastructure.

It is as you suggest "full steam ahead for rail" and your support for the tax credit has given us a full head of steam as we move forward. For that we are most grateful.

My fellow railroad panelist from BNSF will I'm sure highlight the substantial economic and environmental benefits of the railroad industry writ large. I will not repeat those same points but let me put a short line slant on some of them.

In 2019 the Short Line Association engaged Price Waterhouse Coopers (PwC) to take an independent look at the economic contribution of the short line industry. I have attached a copy of that report, along with an easier-to-digest 2-page overview of the short line industry which repeats some of the same information. Among the study's findings:

- The short line industry directly provides 17,000 jobs annually, paying labor income of $1.1 billion and adding $2.2 billion to the nation's GDP;
- Operational spending by the industry supported 33,730 indirect and induced jobs and capital spending supported another 10,240 jobs;
- Across the US economy .51% of business inputs rely on transportation services provided by short lines, amounting to 478,820 jobs, $26.1 billion in labor income and $56.2 billion in value added.

Our contribution to economic progress is also measured in ways beyond these more traditional statistical measurements.

Short lines preserve service and jobs over track that was headed for abandonment. For thousands of communities across the country, short line rail service is the only connection to the national railroad network. For the businesses and farms in those communities, this connection is an economic lifeline.

Railroads not only allow shippers to succeed but also support thousands of contractors and suppliers and the broader American economy. Much of what goes into our track—the ties, the rail, the ballast—is made in America, so most of the dollars we spend are spent in America, supporting American workers, and American industry

and innovation. Over the last five years, the Arkansas and Missouri has spent over $26m on maintenance-of-way operating and capital expenses.

Rail rehabilitation is labor intensive. As small businesses, most short lines do not have the necessary in-house labor force or specialized equipment to complete major rehabilitation projects so they must hire additional contractors and lease heavy machinery for most of the work. The Federal Railroad Administration estimates that half of every dollar spent on short line track rehabilitation goes to pay workers.

As those of you who represent rural areas know, it is difficult to *create jobs in rural America*. According to the U.S. Department of Agriculture, from its post-recession low in 2010 through 2017, rural employment grew at an average annual rate of only 0.5% compared to 1.8% in urban areas. Short lines and the shippers they serve are a significant source of good paying jobs in rural America.

Short lines lower transportation costs for shippers. One rail car holds the equivalent of three to four truckloads. In addition, here is a typical example from my railroad—our rate for moving a ton of freight 54 miles from Butterfield, MO to Springdale, AR is about one-third of the truck rate. That level of savings can be cited for most short lines and is a very meaningful number for the businesses and farmers we serve.

I cannot pretend that these numbers are more than a footnote in an economy measured in the trillions of dollars. But for those shippers we keep connected, for those communities where we create economic activity, for the employees we hire, these are most assuredly meaningful numbers.

The environmental benefits of rail transportation have been well documented and are impressive. The transportation sector is the biggest source of greenhouse gases in the United States. EPA data show that rail, which accounts for 40% of U.S. long distance freight volume, is responsible for just 2.1% of the sector's emissions. You will hear today from my Class I colleague, Tom, that freight trains move on average one ton of freight more than 470 miles on one gallon of diesel fuel.

Highway congestion is a significant contributor to harmful emissions. As noted, the average railcar holds the equivalent of three to four truckloads and removing those trucks from the highway helps reduce congestion. The rail industry handles about 12 million carloads annually which is the equivalent of about 40 million truckloads, plus another 13 million intermodal containers and trailers annually.

Trucks impose an exponentially greater amount of wear and tear on pavement than do passenger automobiles. Each truckload avoided thanks to short lines saves resources that would otherwise have to be used to more frequently rehabilitate or replace road facilities. This is a particular concern for rural areas and small cities and towns that are commonly served by our industry.

Short lines are often the custodians of expensive bridges and tunnels that were originally built by the much larger railroads and are reaching the end of their useful life. Rehabilitation or replacement of this legacy infrastructure results in substantial benefits. In 2018 the Arkansas & Missouri successfully secured a TIGER grant, now known as BUILD grants, to rehabilitate three deteriorating railroad bridges. A successful application requires a detailed analysis of the environmental benefits of the grant. In this instance that analysis showed substantial benefits associated with the reduction of harmful emissions.

From all indications it appears the new Administration and many in Congress will be pushing for a robust infrastructure program. The Transportation and Infrastructure Committee will surely play an important role in developing that program and your Rail Subcommittee will have a significant say in how short lines are included. As you begin to craft that legislation let me offer some programmatic recommendations that we think would maximize the economic and environmental benefits that we offer.

We strongly support the CRISI program as it specifically provides for short line eligibility and puts a focus on benefit-cost analysis. We think with that level playing field, short line projects will fare well. The authorization levels for the program should be significantly increased and there should be no big, new set-asides (e.g. for commuter or passenger or large projects) to ensure an even playing field for all applicants, including small business freight railroads.

We are also supportive of the INFRA grant program, or a successor program such as PNRS as proposed in H.R. 2 in 2020. There is value in a merit-based discretionary grant program open to multiple modes of transportation, especially one that is focused on freight and goods movement. We recommend three changes to this program.

- Allow the program to support the most efficient and effective freight projects by fully removing or at least significantly increasing the $500 million cap on non-highway portions of the multimodal freight projects, as suggested in H.R. 2 in 2020.

- Ensure that the program can fund efficient and effective projects by increasing the "small projects" set aside. Currently, the 10% cap on small projects, defined as a minimum grant of $5 million for projects that do not meet the $100 million project minimum, does not provide enough opportunity for INFRA grants to be used to help with most short line infrastructure projects. The small set-aside discourages short lines from applying for this program. The 10% set aside should be increased to 25% to more accurately represent the many needs in the less populated regions of the country. The proposal in last year's H.R. 2 to eliminate the small set-aside entirely in PNRS would move in the wrong direction and we hope will be reconsidered.
- Maintain reasonable non-federal share requirements for INFRA grants, and consider increasing the maximum permissible share of INFRA program funding per project from 60% to 80% for small projects. Giving increasing preference to grant requests with "over-matching" may appear logical but can lead to missing otherwise important short line projects that cannot overmatch with internal funds or are not located in urban areas that enjoy significant taxing and bonding authority.

Include short line railroad projects in any new transportation grant programs targeting emissions, congestion reduction, resilience or any other goal where short lines can help be part of the solution. For instance, H.R. 2 in 2020 created two new programs (*Sec. 1202, Increasing the Resilience of Transportation Assets—Pre-disaster Mitigation Program and Sec. 1213—Carbon Pollution Reduction*) in which short line projects were not eligible but could have and should have been. Not only is rail an environmentally friendly way to move freight, it is also an attractive option to provide resilient infrastructure that can serve as an alternative to the highway system. Adding freight rail project eligibility would help achieve the goals of the program and moving some freight to rail also improves mobility on public roads.

As was done in H.R. 2 in 2020, *the state freight highway formula* program should become more multimodal and eliminate the non-highway cap, so that program can become a source of funds for State DOTs to use to support freight rail projects if they choose. There are a growing number of states that manage small freight rail grant programs—while these programs pale in comparison to the state road programs, and there are still many states that don't have any program, they are a step in the right direction.

In addition to these specific programs, we would suggest several general principles that would help short lines better utilize any infrastructure program.

1. Short lines should be *directly eligible* applicants for project grants, similar to CRISI. Too often in the past, federal programs have been only open for application to local units of government, which in turn requires short lines to create unnecessarily complex and burdensome applicant structures and which sometimes favors politically popular projects over economically beneficial projects.
2. The application process needs to be as *simple and transparent* as possible. Short lines are small businesses and generally the individuals writing and engaging with the government on our applications are employees with other duties on the railroad. We do not have full time grant writers or the resources to hire expensive consulting firms.
3. The analysis used to judge a project should *not be a rigid one-size-fits-all* process. For example, the process to apply, the public planning and the engineering required, and the appropriate benefit-cost analysis format for incrementally upgrading a ten-mile segment of existing track serving five small grain elevators should not be the same as building a new subway line or adding lanes to an interstate highway.
4. If there is to be an associated *environmental approval* process, it must be completed in a reasonable period of time. Approval processes that last for years are a deal-killer to those running a business.
5. The process of getting from award to grant agreement can be very slow. The committee should work with appropriators to ensure a *sufficient "take down"* is authorized and provided within grant programs for the FRA's grant administration tasks, so that the resources are ample to enable the most efficient grant agreement negotiation and execution process possible. Short lines, more so than many other modal recipients, can be at a disadvantage in terms of the administrative and legal resources with which to engage the FRA's grant program managers and environmental and permitting specialists following award.
6. Imposing limits on a *state DOT's number of grant submissions* allowed in a round of a program forces pre-application competition between smaller short line projects and other larger projects, often putting the smaller short line project at a disadvantage.

7. *Do not equate funding for passenger rail with funding for short line railroads*. There is certainly a strong case to be made for taking people off the highways and onto Amtrak and other commuter rail services. But if passenger rail becomes the dominant placeholder for "checking the rail box" Congress will lose a significant opportunity to fund short line programs that offer significant economic and environmental benefits.

Avoid any Increases to Truck Size and Weight (TSW) limits—Any increases and exceptions to current federal limits would further subsidize our competition on the highway, alter the economics of freight shipping, and would result in a shift from freight rail to truck transportation which would be harmful to everyday drivers, the environment and the public infrastructure paid for with taxpayer dollars. We oppose any legislation that increases current limits. Personally, I expect that with an increase to the size and weight of trucks, my railroad could lose more than 50 percent of our business.

Avoid unnecessary operational mandates such as a crew size mandate—This would be a major problem for all railroads. We maintain this entire concept is unnecessary considering the lack of data regarding any safety benefits of such a mandate and the overall safety record of freight railroads. It would also discourage future innovation and legislates on an issue that has properly been the subject of labor negotiations for more than a century. Further, this mandate would disadvantage railroads in the competition for freight and over time shift freight to the highway, where it is inherently more dangerous and less environmentally sustainable.

I sincerely appreciate the opportunity to give the views of the short line industry at this hearing. I would like to conclude with a personal observation which I believe is shared by many of my colleagues. I am a businesswoman running a small business and I do not pretend to understand the pressures, processes and politics that govern your world. I was however involved in the decades long effort to extend and then make permanent the short line industry's 45G tax credit and I learned an important lesson from that experience. When we launched that initiative in 2003, short line economics were little understood by the majority in Congress. Indeed, for many, short lines were just a quaint name on the Monopoly board.

We worked hard at developing and documenting our story and Members of Congress gave us the time to tell that story, took the time to understand the story, and visited our local properties to get a first-hand look at who we were and what we did. Most importantly, our Congressional allies committed to leading a bi-partisan effort, regardless of who controlled Congress. We worked to extend this legislation in seven separate sessions of Congress, and party control of the House and/or Senate changed many times during that period. Regardless of party control, and often in the face of fierce partisan battles, our chief sponsors never wavered in their commitment to sticking together in bi-partisan support of the legislation. It showed me that government works when you work hard at working it out. We need that today more than ever and I hope that can be the spirit in which you approach creating a much-needed infrastructure package.

ATTACHMENT 1: FACT SHEET—SHORT LINE AND REGIONAL RAILROAD 101

SHORT LINE AND REGIONAL RAILROAD 101

SHORT LINE AND REGIONAL FREIGHT RAIL OFFERS TREMENDOUS PUBLIC BENEFITS PARTICULARLY FOR AREAS OF THE COUNTRY NOT SERVED BY LARGE FREIGHT RAILROADS

Short line freight railroads are small, hometown businesses directly tied to their local economies. They connect the communities they serve to the national rail network, provide local jobs, and help more than 10,000 shippers reach domestic and international markets. Their success is driven by team work, a focus on safety, flexibility and seeking growth opportunities one carload at a time with current and new customers.

SHORT LINES ADDRESS FOUR CHALLENGING PUBLIC ISSUES

GROWING JOBS

478,000
jobs at customer locations across the country that require short line services driving

$26 BILLION
in labor income and

$56 BILLION
in economic value-add*

- Short lines provide an economic alternative to other transportation modes, allowing shippers to compete effectively in the domestic and global economies.
- For many shippers in rural areas and small towns, a short line railroad provides the only connection to the national freight rail network.

PROTECTING THE ENVIRONMENT

Freight rail is a sustainable, environmentally-friendly mode of transportation.

ONE TON
of freight moved

479
miles by rail uses only

1 GALLON
of diesel fuel

Moving freight by rail reduces highway congestion, and lowers fuel burned by vehicles going nowhere.

- U.S. Environmental Protection Agency data show freight railroads account for only 0.6% of total U.S. greenhouse gas emissions and only 2.1% of transportation-related sources (trucking, shipping, air, etc.).

75%
reduction in greenhouse gases vs. trucks

IMPROVING TRANSPORTATION SAFETY

- Short lines annually invest 25-33% of revenues in upgrading rails and bridges to modern standards, ensuring that railroads are the safest form of surface transportation.
- Short line railroads keep 31.8 million heavy trucks off local roads, and away from the motoring public.

50% REDUCTION
in train derailments since 2005 when the Short Line Tax Credit (45G) went into effect, incentivizing more than $5B in industry infrastructure investments to date, according to Federal Railroad Administration data.

SAVING PUBLIC INFRASTRUCTURE

Short line railroads are privately owned, investing up to

33%
of annual revenues in infrastructure, vs. relying on public funds to support infrastructure.

Moving more freight by rail lowers the cost of heavy truck damage by

$1.5 BILLION
annually on the nation's beleaguered highway system, lessening the cost burden to the taxpayer.

*The Section 45G Tax Credit and the Economic Contribution of the Short Line Railroad Industry, PricewaterhouseCoopers LLP (PwC), July 2018. See http://files.aslrra.org/images/news_file/PwC_ASLRRA_final_report.pdf

SHORT LINE AND REGIONAL RAILROAD 101

THE SHORT LINE CONNECTION: A CRITICAL PIECE OF THE U.S. FREIGHT RAIL SYSTEM

Comprised of 600 small business railroads, the short line rail industry was created by entrepreneurs who took large financial risks to save marginal or money-losing Class I railroad branch lines from abandonment.

First & Last mile of service for 1 in 5 cars moving throughout the system each year.

47,500 route miles are operated by short lines

29% of the freight rail network in the U.S.

10,000+ customers are served by short lines

100% Short lines provide 100% of rail service in some states, AND more than **25%** 25% in 36 states.

For large areas of rural and small-town America, the short line rail industry provides the only way shippers can be directly connected to the national economy, while ensuring business and employment stay local. Short lines serve every industry, but are particularly critical for manufacturing, agriculture, and energy.

SHORT LINE FREIGHT RAIL IS ESSENTIAL IN PROVIDING SERVICE TO MORE THAN 10,000 SHIPPERS

"The railroad provides access to additional markets, reduces cost, reduces highway investment and repair and improves prices farmers receive. Access to efficient and responsive rail service is essential for the economic well-being of agricultural and rural areas." - Jim Magnusen, General Manager, Key Cooperative, Holmen, Wisconsin

"We work in economic development and short lines are vital to the success of our manufacturing sector's future." - Mark Nolte, President, Iowa City Area Development (ICAD), Iowa City, Iowa

TOP LEGISLATIVE ISSUES

- **Increase CRISI Funding** - The Consolidated Rail Infrastructure and Safety Improvements (CRISI) grant program is a very popular and successful program that includes short line railroads as eligible applicants. CRISI funding should be increased and there should be no big, new set-asides to ensure an even playing field for all applicants, including small business freight railroads.
- **No Increases to Truck Size and Weight (TSW) limits** - Increases and exceptions to current federal law resulting in a shift from freight rail to truck transportation would be harmful to everyday drivers, the environment and the public infrastructure paid for with taxpayer dollars. We oppose any legislation that increases current limits.
- **Other Grant Programs** - Congress should ensure short line railroad projects can access funding through programs like INFRA, BUILD, and new transportation grant programs targeting emissions and congestion reduction by including freight rail project eligibility and maintaining rural and small project participation.
- **Short Line Safety Institute (SLSI)** - Continue federal support for the SLSI. The SLSI helps build a stronger, more sustainable safety culture through safety culture assessments, training and education - including the safe transportation of energy products and hazardous materials, outreach activities, and research.
- **No Crew Size Mandate** - Safety is our top priority, but there is no safety data to support the need for a crew size mandate, which could impede development and adoption of new safety technologies. Crew sizes have always been and should continue to be handled as part of collective bargaining agreements and not a one-size-fits-all federal mandate.

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ATTACHMENT 2: REPORT ENTITLED "THE SECTION 45G TAX CREDIT AND THE ECONOMIC CONTRIBUTION OF THE SHORT LINE RAILROAD INDUSTRY"

The report is retained in committee files and is available online at the House of Representatives document repository at https://docs.house.gov/meetings/PW/PW14/20210310/111275/HHRG-117-PW14-Wstate-KraskaC-20210310-SD002.pdf

Mr. PAYNE. Thank you, Ms. Kraska.

Now we will hear from Mr. Regan for 5 minutes.

Mr. REGAN. Thank you. On behalf of the Transportation Trades Department, AFL–CIO and our three affiliated unions, I want to first thank Chair Payne and Ranking Member Crawford for inviting me to testify before you today.

I also want to recognize that this is Chair Payne's first hearing since taking the gavel. TTD and our rail unions are looking forward to your leadership on the subcommittee, and working together on an ambitious, pro-rail, pro-worker agenda.

The railroad sector is one of the most storied industries in American history. From the founding of the Baltimore and Ohio Railroad in 1827, to the laying of the first transcontinental railroad, to today's best-in-world freight network, the rail industry has been and continues to be a core driver of the American economy and a way of life.

For decades, railroad employment has provided a path to the middle class for millions of Americans, due to strong collective bargaining agreements and high union density. While the total amount of employees represented by a union has, unfortunately, decreased, representation remains strong at railroads. As a direct result, rail employees continue to earn good wages and benefits, even as economic progress has stalled for many.

These good jobs are not only found on the coasts or in major cities. In fact, there are railroad employees in every single congressional district in the United States, whether urban or rural, coastal or inland, Midwest or Deep South.

Importantly, these jobs are accessible to everyday Americans. Most railroaders do not have a college education, but through rail employment have become highly skilled and earn compensation that significantly outpaces average wages for high school graduates. As the U.S. economy has changed over time, and various industries have risen and fallen, jobs in the railroad continue to be a path forward toward a financially secure livelihood and a dignified retirement.

The industry also creates good jobs outside of the railroads themselves. Two shining examples of this are the manufacture of Amtrak's new Acela train sets by International Association of Machinists and Aerospace Workers members at Alstom's Hornell, New York, plant, and the construction jobs associated with rail infrastructure projects like Gateway and new high-speed rail systems.

Rail employees power a key economic background for our economy. Most recent data shows that Class I railroads alone generated approximately $219.5 billion per year in economic output. In fiscal year 2019, Amtrak carried 32.5 million passengers, including 820,000 trips per day along the Northeast Corridor, moving a workforce that contributes more than $50 billion annually to the national economy.

While the economic impacts of the rail industry today are impressive, we must continue looking toward the future. For example, intermodal traffic is increasingly a key source of business for the freights. But we also know that rail connectors and on-dock rail at our Nation's ports and harbors are badly lacking, leaving revenue and good jobs on the table.

On passenger rail, for years we have fought for improvements on Amtrak's Northeast Corridor and to preserve Amtrak's national network, which connects many of Amtrak's rural destinations. Amtrak is our national passenger rail carrier, and we will continue to advocate for its existing services. But we also believe that there is room, opportunity, and, frankly, demand for expansion to cover new and underserved destinations, as well as new and innovative high-speed rail enterprises.

I hope that Congress will support these new frontiers of passenger rail service, and to provide the appropriate Federal investments, labor protections, and procurement requirements necessary to expand passenger rail and meet service demands and open new markets.

In relation to both freight and passenger rail, my fellow panelists have discussed the environmental benefits of the railroad industry. To maximize these benefits, Congress, rail employers, and manufacturers must act to leverage the developments and procurement of new green technologies to create good jobs. They must work in partnership with rail employees when building and deploying these technologies to best promote safety, reliability, and interoperability.

While there is a bright future for rail and its workforce, we must maintain the promise of the industry as a meaningful sector of good jobs capable of elevating employees to the middle class. However, we sit at a critical juncture for the future of railroads.

As noted in my written testimony, employment in Class I railroads has fallen precipitously and rapidly. Recent reporting shows that employment in Class I's has hit its lowest levels in at least 10 years. And in just the last few years, these railroads have cut approximately 25 percent of their entire workforce. These rapid changes in the industry are not due to sudden obsolescence or deep declines in revenue, but rather they are due to maximizing profit margins. However, operating on such thin headcounts has and will continue to have negative impacts on safety, a railroad's ability to serve its customers, and the existence of good jobs and the long-term health and viability of the sector.

Freight, passenger, and commuter railroads represent an integral component of our economy and our efforts toward a greener future. It is our hope that today's testimony will shine a greater light on the importance of this industry. And we look forward to working with you to secure that position for decades to come. Thank you for the opportunity to testify today.

[Mr. Regan's prepared statement follows:]

Prepared Statement of Greg Regan, President, Transportation Trades Department, AFL–CIO

On behalf of the Transportation Trades Department, AFL–CIO (TTD) and our 33 affiliated unions, I want to first thank Chairman Payne and Ranking Member Crawford for inviting me to testify before you today. I also want to recognize that this is the Chairman's first hearing since taking over the gavel—TTD and our rail unions are looking forward to your leadership on the Subcommittee and working together on an ambitious pro-rail and pro-worker agenda.

We concur in the strongest terms with the theme of this hearing. The positive economic and environmental impacts of our freight and passenger rail networks are vast, and we appreciate their recognition at this hearing. We would be remiss if we did not also highlight that recognition must also be extended to the dedicated work-

force who have kept these systems running over the course of the COVID–19 pandemic. Rail employees have continued to brave the risks of infection or even death to continue to move people and goods across the nation. The present, and future, of this industry is dependent on hard-working railroaders of every craft and class. We strongly support recent efforts by the Department of Transportation and the Federal Railroad Administration to keep these employees safe, and hope that such efforts will remain a focus going forward.

ECONOMIC IMPACTS FOR WORKERS

The railroad sector is one of the most storied industries in American history. From the founding of the Baltimore and Ohio Railroad in 1827, to the laying of the First Transcontinental Railroad, to today's "best-in-world" freight network, the rail industry has been, and continues to be, a core driver of the American economy and way of life.

For decades, railroad employment has provided a path to the middle class for millions of Americans due to strong collective bargaining agreements that have allowed unionized employees to access some of the profit of their labor. To put this in perspective, in 2020 private sector unionization rates broadly dropped to 6.3% of workers.[1] However, nearly all employees of Class I railroads, Amtrak, and heavy rail commuters are union represented and representation is also high at other employers in the industry. This union density has led directly to the adoption of labor agreements that provide good wages and benefits. In contrast, earnings for most of the country have stagnated, as real average wages have not increased for most workers in 40 years, millions of Americans struggle to achieve a living wage, and healthcare costs remain prohibitive for many.

These goods jobs are not found only on the coasts or in major cities. In fact, there are railroad employees in every Congressional District in the United States—whether urban or rural, costal or inland, Midwest or Deep South.[2] Further, these jobs are accessible. Most railroaders do not have a college education, but through rail employment they can become highly skilled and earn compensation that significantly outpaces average wages for high school graduates.[3] Unions have also led the way in the development of partnerships for training and certifications for the skilled positions required for rail operations. Where these programs have been deployed in conjunction with labor representatives, these programs have proven to be extremely valuable. As the U.S. economy has changed over time, and sectors have risen and fallen, jobs on the railroad continue to be a path towards a financially secure livelihood and a dignified retirement through the Railroad Retirement system.

Workforce impacts also go beyond direct employment at the railroads. With the help of well-considered domestic procurement policies, the production of rail equipment like trainsets contributes to the revitalization of the U.S. manufacturing base. The construction of Amtrak's new Acela trainsets by International Association of Machinists and Aerospace Workers members at Alstom's Hornell, NY plant is a shining example for other rail carriers seeking to procure innovative 21st century rail equipment while creating good domestic jobs.

The substantial infrastructure needs of both freight and passenger rail also generate jobs in the construction sector. Whether that be repairing aging tunnels, like the Civil War-era Long Bridge connecting D.C. and Virginia; building entire new rail systems, like California High Speed Rail or the Texas Central Railway; or maintaining the infrastructure needed to move freight and passenger rail over the 140,000 miles of track, 100,000 bridges, and thousands of stations that make up the U.S. network; both today's needs and tomorrow's investments will put construction employees to work.

ECONOMIC IMPACTS FOR THE NATION

The impacts of the freight rail network on the broader economy are substantial. According to the Federal Railroad Administration (FRA), rail accounts for approximately 40 percent of U.S. freight moved by ton-miles, the most of any mode of transportation, and 16 percent by tons.[4] In 2017, the share of that movement by the Class I railroads alone generated approximately $219.5 billion in economic output,

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[1] https://www.bls.gov/news.release/union2.nr0.htm

[2] https://www.rrb.gov/sites/default/files/2020-09/District.pdf

[3] In 2019, those without a high school diploma had median weekly earnings of $592, those with a high school diploma had median weekly earnings of $746. https://www.bls.gov/careeroutlook/2020/data-on-display/education-pays.htm

[4] https://railroads.dot.gov/rail-network-development/freight-rail/freight-rail-overview-0

and $26 billion in total tax revenues.[5] In totality, the vast expanse of the freight rail network connects ports to factories to farms to small businesses, and in doing so is an irreplaceable cog in the movement of goods and domestic commerce.

However, even with the largest freight rail network in the world, opportunities for growth are many and must not be ignored. For example, intermodal carloads, generally shipping containers travelling by water, truck, or air in addition to rail, are an increasingly large component of railroads' business. In a report conducted by the American Association of Port Authorities, 80% of ports said they were seeking better rail access, 90% said better rail access would help meet growing demands, and almost half of ports said that more access would allow them to increase capacity by more than 25%.[6] In conjunction with record volumes at large costal ports like New York/New Jersey, and LA/Long Beach, these responses underscore that there are still unmet needs and untapped growth for freight rail and rail jobs.

In FY '19 and FY '20, Congress took an aggressive approach towards the need for on-dock rail at ports through robust funding of the Port Infrastructure Development Program. In 2020, of 18 projects awarded, 10 were partially or exclusively for rail improvements. TTD is strongly supportive of these efforts and of future efforts to identify areas where federal investment may be warranted.

The connectivity offered to communities around the country by passenger rail is equally essential. In FY' 19, Amtrak carried 32.5 million passengers, setting ridership records on its Northeast Corridor (NEC) and state supported routes. On the NEC, this largely consists of business and work travel. Former CEO Richard Anderson noted that along the Corridor "commuter rail and Amtrak intercity services provide 820,000 trips each day, moving a workforce that contributes more than $50 billion annually to the national economy." Off the Corridor, Amtrak's National Network connects many of Amtrak's rural destinations, providing critical service to cities unconnected or underserved by other transportation modes, and fulfilling Amtrak's obligations to function as a true national passenger rail network.

As we look forward to the future of passenger rail, we hope for Congress' continued support for Amtrak and its 20,000 employees. Support not only to maintain a robust network, but also to improve service and reach more communities. In a recent letter to Congress, CEO Bill Flynn called for support for new "corridor" routes, connecting destinations of less than 500 miles apart that currently do not have service, or have service that is too infrequent or inconvenient. TTD strongly supports Amtrak's expansion in these markets and the improved services and job creation that would come with. We are also encouraged by other efforts to bring state-of-the-art passenger rail projects to the U.S., including the previously discussed high-speed rail endeavors. It is our hope that Congress will consider multiple new frontiers of passenger rail service, and the appropriate application of federal investments, requisite labor protections, and procurement requirements, in order to expand passenger rail to meet service demands, open new markets, and spur job growth.

For both passenger and freight rail, continued economic and environmental importance is predicated on both bold strategies and investments for the future but also on ensuring that today's challenges are not permitted to go unaddressed. As mentioned above, there is no lack of critical infrastructure projects across the country, and frequently the cost of inaction is high. The Northeast Corridor creates and supports 30 percent of the nation's jobs and 20 percent of our GDP, yet without the completion of the Gateway Project, trains will continue to be forced to rely on infrastructure more than a century old that creates constant bottlenecks, has high maintenance costs, and carries substantial risks to both human lives and the economy.

Similarly, the B&P Tunnel was constructed in 1873, and is both near the end of its useful life and no longer suitable for the traffic that passes through it. Currently, the tunnel is a chokepoint in which the right-of-way is reduced from four to two tracks, and the curve of the tunnel requires speed to be reduced to 30 miles per hour. These limitations slow down the approximately 55 MARC trains and 88 Amtrak trains that pass through the tunnel daily, carrying over 20,000 people pre-pandemic.[7] In both examples, addressing today's needs will be essential to having a world-class rail network in the future that remains capable of delivering economic growth and good jobs.

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[5] https://www.aar.org/wp-content/uploads/2018/11/AAR-Class-I-Railroad-Towson-Economic-Impact-October-2018.pdf

[6] https://aapa.files.cms-plus.com/PDFs/State%20of%20Freight%20III.pdf

[7] http://www.bptunnel.com/content/dam/bptunnel/pdfs/PurposeAndNeed/PurposeAndNeed__BPTunnel.pdf

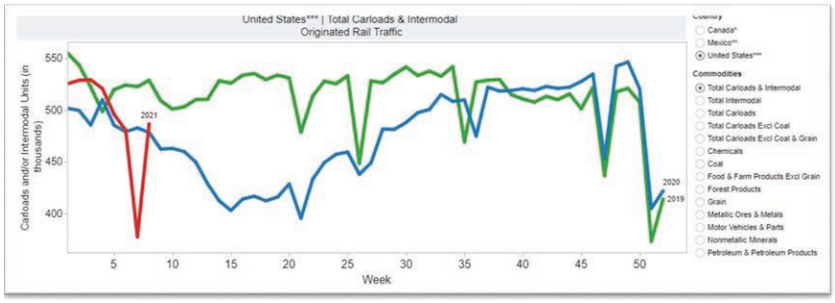
Environmental Impacts

Today's industry witnesses will discuss the details of the green technologies which are currently in use, making rail the "greenest" form of freight transport by land, as well as the innovations they plan to introduce in the future. The environmental considerations of rail will safeguard the industry's viability going forward as businesses and policymakers choose cleaner solutions, and TTD encourages these efforts.

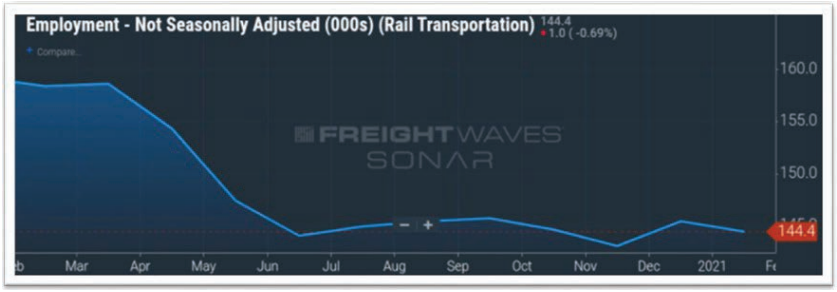
We further call on Congress, rail employers, and manufacturers to leverage the development and procurement of new green technologies to create new jobs in this country, and to work in partnership with rail employees when building and deploying these technologies to best promote safety, reliability, and interoperability, and to further ensure that enthusiasm for these new developments is not adopted as a replacement for well-considered and strongly enforced safety regulation.

Fulfilling the Promise of Rail

While there is a bright future for rail and its workforce, we must maintain the promise of the industry as a meaningful creator of good jobs capable of elevating employees to the middle class. However, today we sit at a critical juncture in the direction of the sector. Recent reporting shows that employment at Class I freight railroads has hit its lowest levels in 10 years, if not longer, and is down a disturbing 11.6% from January 2020.[8] While some job loss was directly attributable to the pandemic, industry data demonstrates that even as carload volume began to normalize to 2019 levels in the second half of 2020, headcounts have failed to increase in keeping with increased business, or to record revenues recorded in recent years.



Source: AAR



Source: Freightwaves via Bureau of Labor Statistics

Unfortunately, this is not a new trend, nor is it exclusive to the pandemic. Due in large part to changes to operating models, employment at Class I carriers has been in precipitous decline over the last several years—between September 2016 and this January, Class I's collectively have shed 25% of their workforce.[9] Similar data also appears in the Railroad Retirement Board's accounting of rail industry employment broadly.

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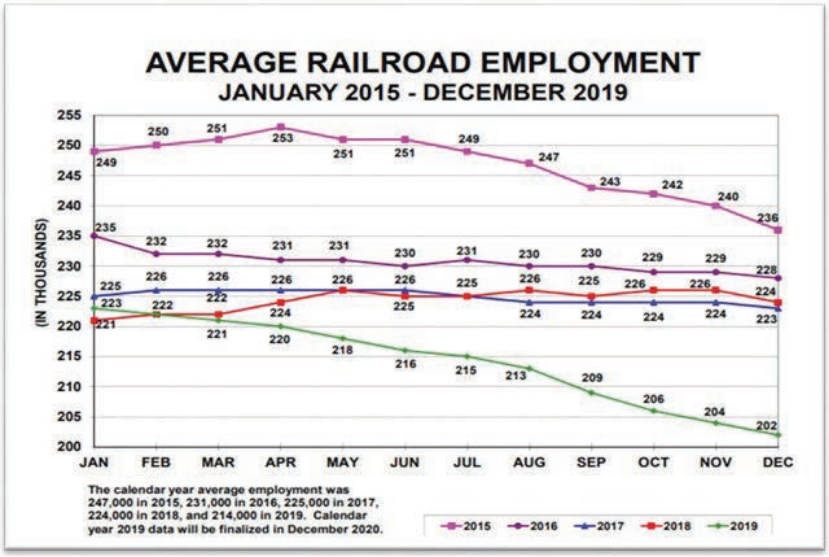
[8] https://www.freightwaves.com/news/us-class-i-rail-headcount-sinks-to-near-decade-low
[9] STB Employment Data "STB EMP COMP JAN 21".



Source: Railroad Retirement Board, Average Railroad Employment, 5 Year Graph

These rapid changes to the industry are not being made due to sudden obsolesce or deep declines in revenue, but are instead borne out of decisions to increase profit margins. Historically, the financial performance of the railroads has been intrinsically linked to the well-being of its workforce. However, in this case we are gravely concerned with the consequences of such a dramatic decrease in employment in such a short time frame, and the implications this has for safety, the railroads' ability to serve their customers, and the long term health and viability of the sector. TTD recently raised these concerns at a similar hearing held by the Senate Commerce Committee.

Finally, the quality of employment offered by the rail sector is tied not only to fair wages and compensation, but also to workplace safety and the existence of strong safety culture. The members represented by TTD-affiliated unions have long been at the vanguard of fighting for safety improvements in the industry, and their combined skill and expertise prevent accidents and save lives on a daily basis. However, it is essential that rail employers are considered equal partners in promoting safety as new technologies and reimaginings of the function of the rail network are developed. No one understands the realities of rail operations on the ground as well as frontline workers, and whether it be the deployment of new technologies, the crafting of new work rules, or the promulgation of new regulations, the meaningful inclusion of rail workers in these conversations is the only way to maintain and promote safety now and in the future.

Whether freight, passenger, or commuter, railroads represent an integral component of our economy and of our efforts towards a greener future. It is our hope that today's testimony has shined a greater light on the relevancy of the industry, and we look forward to working with you to secure that position for decades to come. Thank you for the opportunity to testify.

Mr. PAYNE. Thank you, Mr. Regan.

Now we will move on to Mr. Williams for 5 minutes.

Mr. WILLIAMS. Thank you and good morning, Chairman DeFazio, Chairman Payne, Ranking Member Crawford, and members of the subcommittee. Thank you for inviting me today to discuss BNSF's perspective on the economic and environmental advantages of freight rail.

I currently serve as group vice president for the Consumer Products business group at BNSF. Consumer Products is BNSF's larg-

est business unit, consisting of domestic and international intermodal freight. And, including our automotive business, it represents more than 50 percent of the freight volume moving on our railroad.

BNSF transports, on average, about 15 percent of all intercity ton-miles of freight that move in the United States, and does so safely. We have made significant safety progress and partnership with our employees, and also by continually exploring and investing in innovative technology that helped make the railroads safer, more efficient, and more sustainable.

Despite the pandemic, our railroad handled more than 9½ million carloads, trailers, and containers of freight last year. BNSF reinvests significant capital into our network each year to safely and efficiently handle these traffic volumes, and to position our railroad for growth opportunities into the future. Since 2000, BNSF has invested more than $70 billion back into the railroad.

Rail has historically and will continue to play a critical role in serving the Nation's freight transportation needs. According to the Association of American Railroads, rail accounts for more than 40 percent of long-distance freight volumes.

There are significant economic and environmental advantages to moving all kinds of freight by rail. But this morning, I would like to focus in particular on the value proposition of rail intermodal. There is a good reason for the continued strong growth of intermodal across U.S. supply chains. It is the most cost effective and environmentally efficient mode of transporting freight. Intermodal combines the strength of different transportation modes to yield an efficient total movement of the goods that Americans use and rely on every day.

Rail's role in intermodal is critical. For perspective, one BNSF intermodal train can carry up to several hundred containers and trailers of freight, removing that same number of trucks from our Nation's highways. The resulting safety, economic, and environmental benefits are compelling. Utilizing rail is now widely recognized by our customers as an effective strategy to achieve significant carbon emission savings in their supply chains.

BNSF has even developed a tool to aid our customers in quantifying the environmental benefits of rail by estimating the carbon footprint and savings when shipping on our railroad. Over the past decade, BNSF has helped our customers and the Nation avoid more than 80 million metric tons of CO2 emissions. EPA data shows that freight rail accounts for just 2 percent of transportation-related greenhouse gas emissions. So just the fact that rail exists in its current form creates opportunities to reduce emissions in supply chains.

But beyond just relying on this inherent benefit, BNSF continues to work to increase the efficiency of our network, to maximize our competitiveness in the global marketplace, while minimizing our impact on the environment. This includes utilizing the latest fuel-optimizing technologies and improving locomotive efficiency, with BNSF having the largest number of the newest and cleanest burning locomotives in North America.

We are also actively pursuing other means to reduce our carbon emissions and utilize more sustainable technology in our oper-

ations. For example, we are currently partnering and testing a battery electric locomotive, an initiative which builds on other BNSF investments in and commitment to sustainable technologies that were outlined in my written statement. These include the use of battery-electric hostler trucks; the deployment of zero-emission, electric, wide-span cranes at our intermodal facilities; and the broad rollout of intermodal automated gate systems, just to name a few.

In closing, freight railroads are poised to play an increasingly important role in meeting the growing demand for goods movement in the U.S. The economic and environmental advantages of rail, supported by significant private capital investment and ongoing innovation, will help maintain U.S. competitiveness, and position the country to play a leading role in sustainable transportation.

And finally, as I highlighted in my written testimony, smart public policy decisions can help all of these goals.

Thank you for this opportunity to address the committee, and I look forward to any questions.

[Mr. Williams' prepared statement follows:]

Prepared Statement of Tom G. Williams, Group Vice President, Consumer Products, BNSF Railway Company

INTRODUCTION

Good Morning Chairman Payne, Ranking Member Crawford and members of the Subcommittee. My name is Tom Williams and I am Group Vice President for the Consumer Products business unit of BNSF Railway Company (BNSF). Consumer Products is BNSF's largest business unit—consisting of domestic and international intermodal freight along with automotive—and represents more than 50% of the freight volume moving on our railroad. Thank you for inviting me today to discuss BNSF's perspective on the economic and environmental advantages of freight rail.

BNSF is a wholly-owned subsidiary of Berkshire Hathaway and one of North America's leading freight transportation companies with a rail network of 32,500 route miles in 28 states and three Canadian provinces. BNSF transports on average about 15% of all intercity ton-miles of freight that moves in the United States. In 2020 and despite the impacts of the COVID–19 pandemic on the U.S. economy and around the world, BNSF handled 9.5 million units (carloads and intermodal containers and trailers) of freight. In total, BNSF typically operates about 1,500 trains per day, including 245 passenger trains that run over our network.

To handle these traffic volumes safely and efficiently, BNSF reinvests significant capital into its network every year. These investments play a key role in our ability to operate a safe and reliable network, and support operating and technology improvements that drive sustainability, efficiency, resiliency and capacity. Since 2000, BNSF has invested more than $70 billion into the railroad, providing the foundation to reliably and consistently meet customer expectations and position for future freight opportunities. The predominately privately funded U.S. freight rail industry continues to be a tremendous competitive advantage for our country.

THE U.S. FREIGHT SUPPLY CHAIN

The U.S. freight supply chain plays a critical role in ensuring our nation's economic competitiveness by efficiently connecting producers, manufacturers and consumers domestically and in export markets around the globe. According to the latest Federal Highway Administration (FHWA) and Bureau of Transportation Statistics (BTS) data, nearly 20 billion tons of goods worth almost $19 trillion moved on the U.S. freight transportation network in 2017. Total freight across all transportation modes is projected to reach 27 billion tons by 2045 with a value of $38 trillion.

Significant investment along with innovation in asset utilization, operational efficiencies and resiliency will be needed across the entire supply chain to meet this anticipated growth in freight demand. Rail has historically and will continue to play a critical role in serving the nation's freight transportation needs. According to the

Association of American Railroads (AAR), rail accounts for 40% or more of long-distance freight volumes and hauls close to one-third of the country's exports. International trade accounts for approximately 35% of U.S. rail revenue and 42% of the carloads and intermodal units carried by U.S. railroads. The inherent economic and environmental advantages of rail are likely to result in the industry handling an increased share of intercity freight volumes in the future.

MOVING FREIGHT DURING THE COVID–19 PANDEMIC

BNSF plays an important role in moving freight across the nation every day. Our customers ship consumer goods, industrial products including construction and building materials, agricultural commodities, energy products and various other freight on our railroad. And while the world around us changed last year due to the COVID–19 pandemic, our important freight delivery mission did not and ultimately showcased the dependability of our people and operations.

BNSF had expected to achieve modest freight volume improvements heading into 2020 but the pandemic caused the economy and freight environment to deteriorate in a very short period of time. BNSF volumes began falling in the first quarter of the year and this trend accelerated as the COVID–19 economic shutdown became widespread heading into the summer.

As BNSF adjusted to this new environment, our leadership focused on two main objectives: Protecting the health of employees and continuing to deliver essential freight needed by our customers and the nation. BNSF made ongoing adjustments to its policies and protocols to protect the health and safety of our employees and the integrity of our operations. Railroaders were recognized early on as essential critical infrastructure workers and the men and women of BNSF responded to the call with optimism and perseverance, keeping trains moving during a very challenging time.

A freight rebound began in the summer and we saw significant volume improvement during the second half of the year, led mainly by our Consumer Products business. Lower international intermodal and automotive volumes in the first three quarters were offset by higher domestic intermodal volumes, which ultimately reached record levels for the year on our railroad. Increased retail sales, retail inventory replenishments, and e-commerce activity drove the second half recovery. We also saw strong demand in our grain export business while softness in U.S. industrial production and lower coal demand driven by reduced electricity demand, low natural gas prices and other factors (including the continued structural decline of coal) contributed to overall BNSF volumes being down 7% compared to 2019.

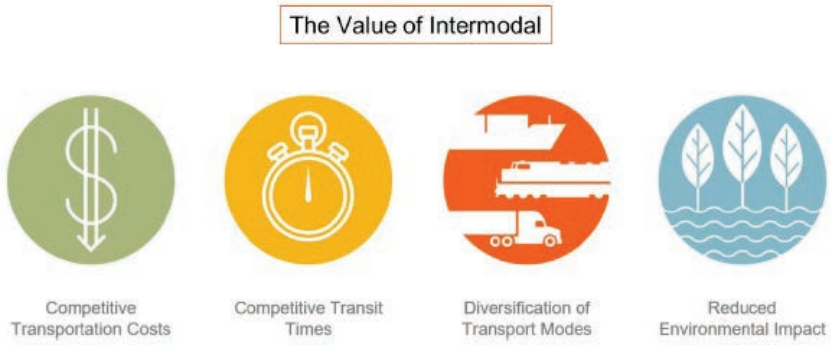
There are positive signs that the U.S. economy continues to gain strength and that volume recovery will continue. BNSF serves every major port along both the West Coast and Gulf of Mexico with key transcontinental routes between Southern California and Chicago, the Pacific Northwest and Chicago and beyond. This past December and January were the two largest months in BNSF history for moving volume direct to rail off the ports in Southern California. We have called back furloughed employees and pulled railcars and locomotives out of storage to help handle the increased freight demand and drive improved fluidity through this gateway.

BNSF did experience significant weather-related impacts in recent weeks following record-breaking cold temperatures as well as heavy snow and ice accumulations across large segments of the rail network. The extended duration of these extreme conditions, and their reach deep into our headquarters state of Texas, impacted our ability to maintain normal train operations. The railroad has since made significant gains in network velocity and fluidity but it will take some additional time to safely restore service to the level expected by our customers.

THE ECONOMIC AND ENVIRONMENTAL ADVANTAGES OF RAIL INTERMODAL

While there are significant economic and environmental advantages to moving all kinds of freight by rail, I will focus largely on our Consumer Products business and specifically the value proposition of rail intermodal. As I highlighted at the outset, more than 50% of the freight volume moving on BNSF is intermodal and those volumes are growing. This did not happen by accident; BNSF has devoted considerable effort and investment in developing the world's leading rail intermodal franchise.

Intermodal is the most cost-effective and environmentally efficient mode of transporting freight, creating value for our customers, communities and the environment. BNSF remains upbeat about continued growth prospects in intermodal driven by projected future freight demand, changes in consumer behavior and related freight logistics, along with the increasing importance environmental issues—specifically carbon reduction—play in our customers' decisions about transportation.



The term "intermodal" was coined in the 1960s as the use of standardized shipping containers increased in popularity. Intermodal combines the strengths of different transportation modes to yield an efficient, cost-effective total movement of goods that Americans use every day. Intermodal is separated into two distinct categories: Domestic and international. Domestic intermodal is the movement of 53-foot containers and 28 or 53-foot trailers within the U.S. that could travel exclusively by truck but that benefit from the cost savings and environmental advantages of riding on the railroad for the long haul portion of their journey.

BNSF maintains the largest and most advanced domestic rail intermodal network in the world that combines the speed and flexibility of a truck with the efficiency, capacity and economies of scale provided by a train. Our intermodal facilities provide direct access to major distribution centers and warehouses throughout the U.S. These end points or "hubs" are located in key markets helping to maximize supply chain efficiencies and speed-to-market for our customers' freight. Domestic intermodal ultimately optimizes the roles and division of labor between truck and rail.

International intermodal relates to goods shipped in 20 and 40-foot containers that travel between domestic and international ports and then move by rail to inland destinations. Inbound international container shipments arrive on a container ship at a port and those that are not distributed locally are loaded onto a train headed for the interior of the country. Containers may be loaded onto trains "on dock" or trucked a short distance to an "off dock" or "near dock" intermodal yard where they are sorted and loaded onto trains. BNSF's direct access to the major U.S. West Coast ports—the largest gateway between Asia and North America—helps our customers minimize their transit times and reduce overall emissions associated with their freight shipments.

According to the Intermodal Association of North America (IANA), 95% of worldwide manufactured goods move at some point in a container. Containers accounted for 47% of intermodal volume in 1990, 69% in 2000, and 92% in 2019. At $40 billion, the North American intermodal market value is the largest in the world with the share of rail intermodal having grown tremendously over the past 25 years. According to the AAR, U.S. rail intermodal volume increased from 5.6 million containers and trailers in 1990 to a record 14.5 million in 2018 before modestly declining in 2019. Intermodal accounted for close to 25% of revenue for major U.S. railroads in 2019, more than any other traffic segment.

One intermodal train can carry up to several hundred containers and trailers, removing that same number of trucks from congested roadways and eliminating wasted time and fuel from trucks sitting in traffic. Shifting freight from trucks to privately funded railroads also reduces the pressure on policy makers at all levels of government to come up with new funding to maintain existing infrastructure and build new roads and bridges. As discussed in more detail below, trains are also much more fuel-efficient than trucks overall, which contributes to lowering carbon emissions, decreasing environmental impacts and enhancing safety.

BNSF share gains over time in intermodal have come as the result of billions in capital investment in our rail routes, terminals to load and unload containers and technology to provide the customer the high levels of service and efficiency needed to ensure intermodal remains an enduring part of the supply chain. Since every container or trailer on a BNSF train could also travel by truck, we must provide service that is both cost effective and meets the stringent delivery needs of intermodal shippers. As you will read later in my closing comments, policymakers can play an important role in supporting the future of intermodal.

SUSTAINABILITY

Steel wheels on steel rail is the most sustainable way to move goods long distances over land. On average a U.S. freight train can move one ton of freight more than 470 miles on just one gallon of diesel fuel, making rail three or four times more fuel efficient than trucks and reducing greenhouse gas (GHG) emissions.

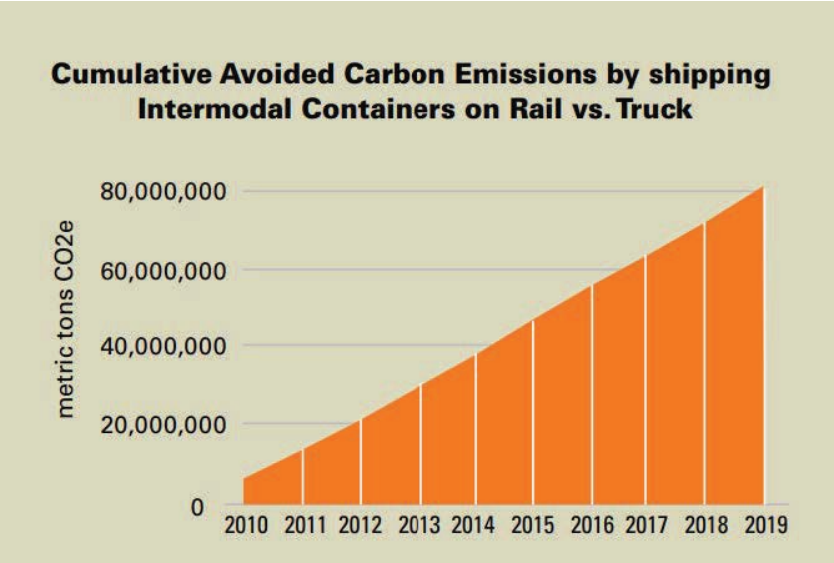
One timely example to highlight how ongoing investments in rail infrastructure and multimodal transportation assets can promote sustainability and contribute to reducing transportation related emissions is the Salmon Bay Rail Bridge rehabilitation project located in Seattle, Washington. The bridge is a critical link to the Pacific Northwest's economy and gateway for international commerce with 30 to 40 trains crossing the bridge every day, including Sound Transit and Amtrak passenger trains. The bridge requires a 200-foot movable span to accommodate the more than 40,000 marine vessel trips traversing the Ballard Locks and Lake Washington Ship Canal each year to and from Puget Sound.

The movable span's counterweight system is in need of rehabilitation, which will include replacing the structural steel members and components that have reached the end of their useful life. Failure of the system would cause the bridge to be forced to the "up" position, cutting off freight and passenger rail traffic. A recent analysis found that a bridge outage would shift freight traffic to more circuitous rail routes or onto the highway system. Commuter and intercity rail passengers would also be impacted and diverted to area roadways. The analysis concluded that maintaining reliability of the movable span would save more than 200 million gallons of diesel fuel and associated emissions from alternative and less efficient freight movement, avoid the addition of more than 600 million over-the-road passenger miles, and preserve maritime access through the locks and canal.

BNSF and other public and private stakeholders in the State of Washington are now working together on an innovative public private partnership to ensure continued reliable operation of this unique multimodal asset, to be completed in a manner responsive to community interest in preserving the bridge's historic features and minimizing impacts on the environment.

At BNSF we know that environmental issues and specifically carbon reduction play an ever more important role in the transportation choices our customers are making. Shipping by rail can be part of an effective strategy to achieve significant carbon emissions savings and BNSF has developed a tool to aid our customers in quantifying the environmental benefits of rail by estimating the carbon footprint for their shipments on our railroad. The carbon estimator tool can also be used to calculate the reduction of a potential customer's carbon footprint should they choose to incorporate BNSF into their transportation supply chain.

BNSF's intermodal customers reduced their carbon emissions by roughly 7.5 million metric tons in 2019 and as shown in the graph below, BNSF has helped our customers and the nation avoid more than 80 million metric tons of CO2e over the past decade. This is the equivalent of removing more than 17 million passenger vehicles off the road.



While Environmental Protection Agency (EPA) data shows that freight rail accounts for just 2% of transportation-related GHG emissions, BNSF continues to challenge the status quo by working to further increase the efficiency of our network and minimize our impact on the planet. Efficiency also improves our position in the marketplace and helps preserve the competitive advantage of the U.S. supply chain.

Locomotive technology has been essential to improving our network fuel efficiency and reducing air emissions, and as such we have made a significant investment in three key areas of locomotive technology: New locomotives, Automatic Engine Start/Stop (AESS) systems and Energy Management Systems (EMS). BNSF is proud to have the largest number of the newest and cleanest-burning locomotives in North America. Since 2005, BNSF has purchased more than 3,600 new locomotives, including more than 500 locomotives since Tier 4 EPA standards took effect in 2015.

BNSF has also equipped more than 3,500 locomotives with EMS, which allows throttles and dynamic brakes to be controlled automatically, similar to cruise control in an automobile. We are integrating EMS with the safety technology Positive Train Control (PTC), which I will touch on again later, to maximize the utilization of EMS and minimize fuel consumption. Finally, BNSF significantly reduced its locomotive fleet's average emission rate of nitrogen oxides (NOx) and particulate matter (PM) over the past decade. In just the five years from 2015 to 2019, our NOx and PM emissions decreased by more than 11% and 25% respectively.

BNSF is actively pursuing other means to reduce our carbon emissions and utilize more sustainable technology in our operations. We are currently working with Wabtec—a leading rail technology supplier and locomotive manufacturer—and have begun testing in revenue service a prototype 100% battery-electric locomotive. This work is supported in part by a $22.6 million grant awarded to BNSF and the San Joaquin Valley Air Pollution Control District from the Zero- and Near Zero-Emission Freight Facilities (ZANZEFF) project by the California Air Resources Board to pilot several emissions-reducing technologies in and around railyards. BNSF installed a charger for battery-electric locomotives at our Mormon Yard in Stockton, California.

The battery-electric locomotive initiative builds on other BNSF investments in sustainable technologies along our network and in our hubs including:

- *Idle control*: Reduces air emissions and fuel consumption by automatically shutting down locomotives that aren't being used.
- *Electric wide-span cranes*: Produce zero emissions on site while generating power each time they lower a load. The wide stance design of these new cranes eliminates as many as six diesel trucks (hostlers) for shuttling containers within the intermodal facility, reducing emissions and improving fuel efficiency.
- *Battery-electric equipment*: Hostlers, cargo handling equipment and drayage trucks.

- *Intermodal automated gate systems (AGS)*: AGS uses digital cameras to record images of the containers, chassis, tractors and unit numbers as they enter an intermodal facility. These new gates have increased facility throughput and reduced truck idling time and air emissions by 50%. In addition, BNSF's RailPASS Mobile App for truck drivers cut each gate transaction time in half, allowing drivers to pass through the AGS in as little as 30 seconds.

BNSF is focused on ensuring that rail continues to be the most environmentally preferred mode of surface transportation and remains committed to playing a constructive role to test and prove the commercial viability of emerging technologies that further reduce emissions.

RAILROAD SAFETY

Safety is the most important thing we do at the railroad, and no discussion of rail's advantages is complete without highlighting the industry's safety advancements and ongoing risk reduction efforts. These include robust capital investment, operational and technological innovation, training that reinforces safe operating practices and maintenance of a strong safety culture among our employees. The graphic below highlights the industry's safety record over the past 20 years.

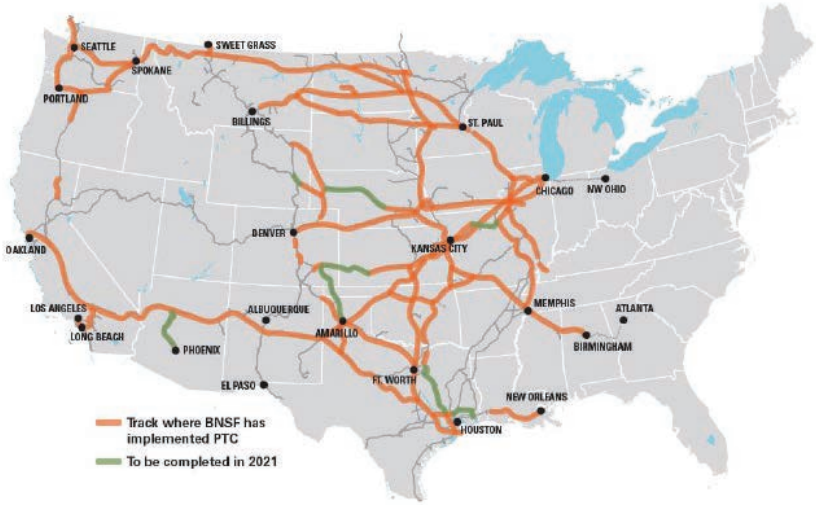
Railroad Accident Rates: 2000–2020

Total accidents	-35%
Collisions	-52%
Derailments	-37%
Other	-24%
Employee injuries	-52%
Grade crossings	-32%
Hazmat incidents †	-64%

† Through 2018 Source: FRA, AAR

BNSF is committed to a culture that continuously examines the effectiveness of its safety processes and performance, and we've made steady improvements over time in reducing employee injuries and the number of mainline derailments. We've also made steady improvements in grade crossing safety. Since 2000, BNSF's employee injury frequency ratio has been reduced by 62% while the rail equipment incident rate has been reduced by 45%. BNSF's highway grade crossing incident rate has decreased by 50% over this same time period.

BNSF has made significant safety progress in partnership with our employees and by continually exploring and investing in innovative technologies that help make the railroad safer and more efficient. PTC is an example of this, with deployment of the technology helping to address human factor risks associated with train operations. BNSF has invested well over $2 billion to deploy PTC on 99 subdivisions, including on several not mandated by the federal government, and covering more than 14,000 routes miles. 93% of total freight volumes moving on our railroad is protected by PTC. The graphic below shows BNSF's current PTC footprint (green lines indicate non-mandated subdivision implementation scheduled for 2021).



While PTC has received the most public attention in recent years when it comes to railroad safety, there are also many other important safety technologies related to equipment health and track inspection being developed and deployed around the rail network. It is important to note that safe rail operations are not achieved simply through compliance with federal regulations. Rather, railroads employ comprehensive risk based safety programs that often go well beyond federal requirements. This is why you will hear the freight rail industry continue to voice support for a performance-based, data-driven safety regulatory paradigm that allows innovation—as opposed to command-and-control mandates—to drive solutions that improve rail safety and efficiency.

CLOSING THOUGHTS AND POLICYMAKER CONSIDERATIONS

Freight railroads are poised to play an increasingly important role in meeting growing demand for goods movement in the U.S. As the American Society of Civil Engineers wrote in a report released recently on the state of the nation's infrastructure, the freight rail industry "maintains a strong network . . . investing on average over $260,000 per mile." The economic and environmental advantages of rail, supported by such significant private capital investment and ongoing innovation across the industry, will help maintain U.S. competitiveness in world markets and position the country to play a leadership role in sustainable transportation solutions. Smart, long term public policy decision-making can help support this outcome. Here are a few items for policymakers to consider:

- *Innovation*: Railroads must be allowed to innovate to improve safety, efficiency and sustainability. Innovation can include the development and deployment of new technologies along with process and operational improvements. Safety regulatory oversight should identify expected safety outcomes and support and encourage innovative solutions to meet those goals.
- *Modal equity*: A level playing field across competing freight transportation modes is required to ensure railroads remain competitive. Publicly-funded highway and bridge infrastructure should be supported by an appropriate and sustainable user fee mechanism to avoid subsidizing freight moving on already congested highways (and ultimately incentivizing that outcome) at the expense of privately funded freight railroads. Modal equity also includes "innovation equity" to ensure equal opportunity across modes to pursue innovative transportation solutions that enhance safety and efficiency.
- *Balanced regulation*: Railroad rates and service are regulated by the Surface Transportation Board, the successor agency to the Interstate Commerce Commission. The Board performs an important role and must take care to maintain a balanced regulatory environment that will allow railroads to earn sufficient revenues to support ongoing reinvestment in their networks.

- *National uniformity*: Preserve a nationally uniform rail regulatory framework that avoids a patchwork of state and local rules that are not appropriate for, and inconsistent with, the needs of interstate commerce.
- *Infrastructure capacity*: Railroads are becoming ever more efficient but still anticipate needing to build additional infrastructure—in particular yard and intermodal hub capacity at rail endpoints—to handle anticipated growth in freight demand. This has become ever more challenging and the rail industry looks forward to working cooperatively with public officials at all levels of government to facilitate these efforts, which are needed to support the policy goal of keeping more of our nation's freight moving by rail.
- *Public-Private Partnerships*: Provide flexible federal funding opportunities that support public-private partnerships with freight railroads, including through competitive USDOT grant programs such as INFRA, BUILD and CRISI. Also, increase funding to respond to community calls for more highway-rail grade separations.

Thank you again for inviting me to testify today and I would be happy to answer your questions.

Mr. PAYNE. Thank you, Mr. Williams.

I will now move on to Member questions. Each Member will be recognized for 5 minutes, and I will start by recognizing myself.

Secretary Valentine, in your testimony you highlight the Long Bridge, built in 1904, as one of the worst rail bottlenecks along the east coast. The bridge carries all passengers, commuter, and freight rail along the corridor, moving nearly 80 trains a day, with a capacity of 98 percent during peak hours. In response, your State is building a new two-track Long Bridge for $1.9 billion to serve passenger rail, leaving the current bridge for freight. Removing this bottleneck along the corridor will improve passenger rail capacity and on-time performance from Maine to Florida.

Another bottleneck along the east coast is the Hudson River Tunnel. Like the Long Bridge it only has two tracks, built in 1910, and moves up to 24 trains an hour, over 400 trains a day. Building a new Hudson Tunnel is one piece of the most critical infrastructure projects in the country. It is called the Gateway Program. If one of the Hudson Tunnel tubes fails, what is the impact to passenger rail in Virginia, almost 400 miles away?

Ms. VALENTINE. Well, thank you, Mr. Chairman. Thank you for the question.

I will say that, you know, many of these projects were all looking at the choke points along what is really a system. No rail system—very few end at a State or jurisdictional boundary. So the improvements that we are able to make here and across the Potomac here in Virginia, we open that capacity to expand existing rail. It allows us to expand to additional rail, to places that are underserved.

We are making a dedicated passenger rail connection between the Northeast and the Southeast Corridor.

[Audio malfunction] ... reliability and the performance of the system, so that those in the Southeast and those in the Northeast can benefit from these investments. The investments made along the entire corridor, whether the Gateway Project, among many others, all of these investments support our rail network. That is how we see all of us working together, supporting each other to really create a true national rail system.

Mr. PAYNE. Thank you.

Mr. Regan, providing everyone with access and opportunity for employment is an important issue for me. Your testimony states

that the rail sector offers a path to skilled work and the middle class, even for those who do not have a college degree. We need to grow these types of jobs exponentially.

But you caution a downward trend in the overall railroad workforce. Is that trend a result of the COVID pandemic?

And if not, then what is the cause, and what recommendations do you have for growing the railroad jobs and expanding opportunities like those described in your testimony?

Mr. REGAN. Thank you for the question. We saw a dip in railroad employment early in the pandemic, but that does not explain, certainly, the drop in employment at the Class I railroads. We have seen a very sharp decline over the last few years, and one that is a result, frankly, of a shifting in business model towards a focus on quarterly returns from—in terms of shareholder returns. And it is one that, frankly, gives us a lot of pause. It is one that we think has a negative effect on safety, it has a negative effect on operations.

Frankly, we are looking for a way to make sure that we continue the steady, upward trend of freight rail in a way that will grow jobs, continue to serve the customers, and ensure that we have a sustainable future for freight.

Mr. PAYNE. Thank you. And trying to be a good example, I will yield back before my time is over. And we will next hear from Mr. Crawford for 5 minutes.

Mr. CRAWFORD. Thank you, Mr. Chairman.

I want to ask Ms. Kraska, how has the COVID–19 pandemic affected short line railroads?

And is there anything policymakers here in Washington can do to help the short line industry better respond to the pandemic?

Ms. KRASKA. Thank you for the question. The COVID experience has impacted the various short lines in many different ways. I have been affected differently than other local railroads, so there is no strict one-answer-fits-all, as is typically the case.

Initially, we experienced a significant drop in freight. We had guaranteed our workers 40 hours, so we provided that to them. We reassigned them to do other jobs, and we wanted to keep our payroll the same. And basically, we have seen a fair amount of recovery, although some railroads have not.

In terms of what can be done: training, providing jobs. It is difficult to hire right now for me, and I am looking for more people.

So guidelines as to how to handle COVID, training programs for the workers would all be very helpful.

Thank you.

Mr. CRAWFORD. OK, thank you. I may get back to you with another question, but right now I want to ask Mr. Williams.

You mentioned in your comments the need to innovate. Can you talk about that a little bit? Flesh that out a little bit more. What can Congress do to address your need, your desire for the rail industry to innovate?

Mr. WILLIAMS. Well, I think about innovation supporting three specific objectives that ultimately help us be more competitive with our customers.

The first always is safety. So any innovation that would help us more safely operate our network and protect the safety of our em-

ployees. And the second is efficiency. And then finally, environmental sustainability.

And we are in a very competitive marketplace. And so innovating in ways that help us be more efficient so that we can grow, which is going to be good for our employees in the long run, but it is also going to be good for the employment of the supply chains that rely so heavily on freight rail, and their employment bases, and ultimately the competitiveness of the U.S. and the global economy. So we want to be innovative.

And in terms of help, making sure that we have got a level playing field with other competitive transportation modes so that we are able to advance both process and technology on the same level that our competitors are doing in their space.

Mr. CRAWFORD. Thank you, I appreciate it. Let me go back to Ms. Kraska.

It is my understanding that short line railroads make considerable investments in rehabilitating and maintaining their own infrastructure. How does this investment translate to jobs and local economies?

And you mentioned that you were actually looking for more employees. And can you kind of talk about that a little bit, and the rehabilitation and maintenance of your own infrastructure, and how that would impact that?

Ms. KRASKA. We——

[Pause.]

Mr. CRAWFORD. I think you are muted.

Ms. KRASKA. It keeps clicking back and forth.

We have a maintenance-of-way team that we use to do operating, which is general maintenance, and capital projects, which is the more expensive projects that we undertake.

To the extent where maintenance is general maintenance, we have our crews. But sometimes, when we do the larger capital projects, we are unable to support that ourselves, in terms of the fluctuation in manpower, so we will hire contractors. We have those relationships with people right now on property. We have one contractor working on our bridges. So we are staffed and ready to do that work.

But there are some types of workers where we are having difficulty hiring, whether it be for lack of interest—since we are willing to train, it is not necessarily lack of a skill set.

So I hope I have answered your question. But if not, please——

Mr. CRAWFORD. No, I—that is perfect. Thank you. I appreciate it.

Ms. KRASKA. OK.

Mr. CRAWFORD. And I yield back.

Ms. KRASKA. Thank you.

Mr. PAYNE. OK, the gentleman's time has expired. We will now go to the chairman of the full committee, Chairman DeFazio.

Mr. DEFAZIO. I thank you, Mr. Chairman.

Mr. Williams, during your remarks you mentioned electrified locomotive. I am curious. I mean, of course, there are some historic lines where we have very long, electrified railroads, historically. The infrastructure no longer exists. Would this run off a catenary, or would it be self-contained?

Mr. WILLIAMS. So thank you for the question, Chairman DeFazio. And the technology behind our battery-electric locomotive test is a little beyond my scope. But I would just say this is a test in partnership with the manufacturer that we are going to do within the State of California. And it does have the potential to expand, as a lot of our efficiency, environmental, and safety initiatives over time, they start with tests in a specific region. And if successful, just as PTC rolled out broadly across the railroad after a significant amount of testing, that is the potential.

But in terms of the specific technology, we would have to follow up with your office on that.

Mr. DEFAZIO. Great, yes, I would recognize—and I think you were the first to fully implement PTC. I congratulate you on that. Obviously, you are a bit more innovative than some.

Ms. Valentine, how did you get CSX to the table?

I am approached by people in Texas and in my State and elsewhere who are trying to deal with—I am going to say names—Union Pacific, and they never want to come to the table.

Ms. VALENTINE. Well, thank you, Mr. Chairman. You know, it really shows the power of a discretionary Federal grant.

Back in 2016—it was the beginning of the INFRA grant program, and the Commonwealth had applied for funding. We did receive some funding, about $165 million; $45 million of it was for rail. And it was really through that discretionary grant that we received that we were in discussions with CSX and Amtrak. And those funds actually have morphed into what is now our $3.7 billion initiative.

So those discussions have been going on for a while, seriously for these past 2 years. Working with the railroad, how could we make rail more efficient for both of us? And that is how it was launched.

Mr. DEFAZIO. So just a little bit of Federal investment.

Ms. VALENTINE. Yes. Well, you know, the power of bringing us together.

Mr. DEFAZIO. OK, all right. Well, we are going to see if we can replicate that model.

Mr. Regan, would you want to comment on PSR [Precision Scheduled Railroading] a little bit?

Mr. REGAN. Sure. This is a rising trend within the industry. It is one that we see a lot of negative impacts, from the employment perspective. We also have concerns about safety, about encouraging cutting corners when it comes to maximizing profits.

It is something that has become widespread among the Class I railroads, and something that is, frankly, disconcerting for us, and one that we think there needs to be some oversight from the Federal Government to make sure that whatever business model is being implemented is done so in a way that continues to manage both the common carrier obligations of the freight railroads, as well as making sure that we are continuing to operate in a safe manner.

And that is at our core, making sure that our members are operating these railroads in a safe way, both for their own safety and for the communities they operate through.

Mr. DEFAZIO. Yes, it kind of reminds me of the Frank Lorenzo days, when he destroyed Eastern Airlines. I have concerns.

We have certainly had a lot of customer complaints on the first experiment with CSX. I think we are still getting some. But it has gotten better. But I am concerned, particularly when we have some railroads running trains as long as 3 miles, and they want to go to a single crew for a 3-mile-long train.

I asked the head—the former head—of the FRA under Trump, well, if the train broke down in Albany, Oregon, and it is blocking every crossing through the city, it means no police, no fire, no ambulance. How long is it going to take the engineer to walk 3 miles from the front of the train to, say, the second car from the rear, which is having a brake problem?

And he said, "Well, I don't know, an hour." So, there are some real concerns here that we have to pursue. So thank you.

Thank you, Mr. Chairman. No further questions.

Mr. PAYNE. Thank you. The gentleman yields back. Now we hear from Mr. Davis.

Mr. DAVIS. Hey, Mr. Chairman.

First off, I want to congratulate you on your chairmanship. I told your predecessor, Chairman Lipinski, that I would miss him. But since you are chair, I won't miss him anymore. And I hope somebody reminds him of that, too, because I will if you don't.

But I also want to recognize your efforts in Colorectal Cancer Awareness Month, this month, of what you have done to really affect the fight against that disease that killed your father and affects my wife and my family today. So I appreciate your leadership, your friendship, and your partnership in that arena. And I am looking forward to working with you on this subcommittee, and also Ranking Member Crawford. So thank you.

Mr. PAYNE. I thank the gentleman.

Mr. DAVIS. Well, thank you, sir. And I have to go to another committee hearing, so I am just going to talk real quick about my One Federal Decision Act. It is a bill that I have introduced. Hopefully it would be part of any infrastructure push to put the environmental review process at a 2-year maximum timeframe.

I am going to have to yield back my time to get to this other hearing, but I would prefer if the chairman would allow them to—Ms. Kraska and also Mr. Williams—to be able to make comments on the record about how a shorter review process and that maximum 2-year time period process could impact the short lines and also the BNSF.

So with that I yield back, and I hope Mr. Williams and Ms. Kraska can respond to that. Thank you.

Mr. PAYNE. Thank you. The gentleman yields. And now we will hear from Mr. Moulton.

I am sorry, hold on. Would you like them to respond on the record? It is still your time. Yes, sir.

Would the two witnesses respond to Mr. Davis' questions?

Mr. WILLIAMS. Yes. This is Mr. Williams. Certainly, having a timeline for environmental review and giving us more certainty into that process would help us. Our objective is to be able to expand our network as our customers expand their need and growing their supply chain.

So if a retailer builds a new distribution center, they are going to need a little bit more rail service over time. That is going to re-

quire us to incrementally add capacity to our network. And so having more certainty around that permit review process would enable us to better keep up our pace of investment with our customers' needs.

Ms. KRASKA. This is Caren Kraska. I agree with everything that has just been stated.

My perspective is somewhat different, being a much smaller railroad. So the comments that I have revolve around the uncertainty created by the length of the process. I don't necessarily know at what point in time a project will start and if, in fact, the expected duration will be what I anticipate or not.

Probably more concretely, there are impacts on cost. A longer timeframe means, you know, what has been the impact of inflation, what will the costs be. If you then look at it in what we have experienced with COVID, potential supply chain—translate—locations and disruptions. Will the things that I have needed still be available, or will I have a 6-month waiting time?

Further to that, if you have a circumstance where the scope of the project has changed because the asset has deteriorated further, you could, in fact, have a higher cost and a re-evaluation of the process and the work that needs to be done.

Finally, a longer process could suggest that there are, in fact, additional studies and costs associated with completing that particular project. And that is an unknown, and particularly as a small business, that is an undesirable outcome. Thank you.

Mr. PAYNE. Thank you. Now we will go to the gentleman, Mr. Moulton, for 5 minutes.

Mr. MOULTON. Chairman Payne, congratulations on your first hearing, and thank you to all the witnesses for being here today.

Last May I released a white paper on the role high-speed rail can play in rebuilding the U.S. economy, not just from this pandemic, but building back better for the future. And in December, I introduced the American High-Speed Rail Act.

So, Mr. Chairman, I would like to submit my white paper, "American High-Speed Rail and Rebuilding the U.S. Economy," for the record.

Mr. PAYNE. Without objection.

[The white paper is on pages 94–111.]

Mr. MOULTON. Thank you.

Having worked, myself, on a short line in New England—I spent some time working for Burlington Northern Santa Fe—and then serving as the managing director of Texas Central's high-speed rail project between Dallas and Houston, I understand how important your work is for the American economy, and how much potential it holds for our future. So to all the witnesses here, thank you for your work in doing what you can to bring our rail system in America up to par with the rest of the world.

We do some things really well, and many nations admire our freight service. But, as several people have already noted, our passenger rail is pathetically behind the times. And that just points to how much opportunity we have for the future.

But we shouldn't think of high-speed rail as something that just exists in the Northeast Corridor, or perhaps in the Northeast Corridor or California, because high-speed rail has the capacity to con-

nect many different parts of our country and, in particular, to connect smaller cities that have not taken such a leading role in the tech economy of the last 30 years to larger cities that they lie between.

And that is important when we think about how we bridge the divide that exists in so many ways in American society today, but particularly between those who are thriving in our coastal cities and those in other parts of the country that in many ways feel left out.

Secretary Valentine, I would like to start with a question for you. When you pursued this project in Virginia, you and the chairman have both noted how it was so unusual to look at this transportation problem and say, rather than just build more highways, we should look at what other solutions might be on the table. If you step back and think about this for a minute, this is pretty extraordinary because it is the only logical way to address a problem like this.

We don't address communications problems by simply saying, "How do you solve it by improving a telephone network?" No, we look at all the options that are on the table, including new technologies that are coming online every single day. And yet in America, and uniquely in America, we try to answer every transportation bottleneck by just building more highways.

So tell us why that is the case, why that has been the case in the past. And perhaps you could explain some of the obstacles that you encountered in doing things in a totally sensible way to approach your problem, but in a way that was, nonetheless, quite unusual.

Ms. VALENTINE. Well, I really appreciate that question. Thank you.

In Virginia we have made a commitment to a multimodal transportation system. It is incredibly—from the Port of Virginia, rail, Metro, transit, I–66, airports—we have a spaceport over on Wallops Island. So we really have made that commitment to this.

As we have done this, we have really begun to look at corridors, full corridors. And it really began at looking at the I–81 corridor in the western part of Virginia, 325 miles, looking at what are the operational technology improvements that could bring multimodal improvements, just looking at what we could do to target solutions. Four billion dollars of need was identified. We are managing to address $2 billion of those needs, but we are trying to do it in a very managed way.

That program is actually what led to future corridor studies. That is how we began to look at I–95, look at I–66, and that is how we are approaching transportation in Virginia. With limited resources, how can we find the right solution? And that is the approach we took on I–95.

When we looked at the other options, they were either unaffordable or ineffective, which is worse. And so that is really what led us to this.

Mr. MOULTON. My time is almost up. But if I could ask a question for the record, and would very much appreciate your response, what are some of the obstacles to doing this that you have encountered?

Why is it that this is such an unusual approach when, really, if you think about it, it is just a sensible approach we should all take: how best to solve a problem, not how do you solve a problem, or how do you fit a particular solution—i.e., adding lanes to highways—to whatever transportation problem that we have?

So thank you, Mr. Chairman. I yield back.

Mr. PAYNE. Thank you. The gentleman yields back. We will now hear from the gentleman, Mr. Weber, for 5 minutes.

Mr. WEBER. Ms. Kraska, this will be for you, primarily. On the short line railroads, do you have the figures of the percentage of employees of those SLRs as to be compared with the regular complete lines?

And I will tell you why. Hold on 1 second. What I am getting at is with the COVID, with the pandemic hitting, is it determinable what percentage of employees were put on hold, lost their jobs, if you will, with the SLRs versus the major railroads?

[Pause.]

Mr. PAYNE. It might be on mute.

Ms. KRASKA. Yes, I was on mute, apologies.

I will need to get back to you with that specific bit of information. But what I can tell you is that—at least information on the SLRs—no employees have lost their jobs as a result of COVID with me, though. So I can see if I can find some industry figures, but I will have to get back to you.

Mr. WEBER. OK, that would be great if you could get back to the office.

And then do you have a gauge of how much—not everybody has a railroad that goes right to their back door, obviously, thus the need for SLRs. But do you have any idea of how much—was there a time when SLRs were not available for the major railroads, and there was a freight hold up? Any facts or figures on that?

Ms. KRASKA. Again, I will have to get back to you on that.

Mr. WEBER. OK, I am just trying to gauge how much the pandemic has done.

You guys do a great job and, of course, I have five ports in my district, more than any other Member of Congress. Some have four, but we have five there on the gulf coast of Texas.

I am an air conditioning contractor by trade, 35 years I owned my company, so a little bit of a technical question. Do you know if any of the locomotives or any of the train systems or office systems—have any of the HVAC—the air systems—been redesigned because of the pandemic?

Ms. KRASKA. Are you talking specifically about me and my structures, or are you talking about on equipment? Could you please clarify?

Mr. WEBER. You and your structures. And I would assume maybe the locomotives, as well, or the trains themselves. Of course, I realize you all have basic locomotives into that part.

But in your offices have there been any technical changes in the air distribution systems, do you know?

Ms. KRASKA. We have, in fact, done that, in terms of what upgrades the HVAC vendors provided to us, in terms of filters. And I guess there are some various technologies that we availed our-

selves of to do that, in terms of we have some business cars, the like, and the office buildings.

The locomotives, per se, I am not aware that we had done anything in particular. But again, we can get back to you on that.

Mr. WEBER. Well, thank you. There is a system that eliminates microbes and bacteria and all that kind of stuff that people can buy for their homes and office buildings. I just didn't know if that had increased your operating cost. If you would, look into that.

And then, again, any idea—would you say that your revenue had dropped, I don't know, 10 percent, 20 percent, 5 percent, your job—availability of moving product? Slow-down reduction? Any idea on that percentage?

Ms. KRASKA. We are a privately held company, so those figures are not disclosed, and generally not available to anyone but shareholders.

Having said that, at the outset our revenue dropped precipitously. By the end of the year we had seen a rebound, and we were basically what I would consider flat with the prior year, but the prior year also had some down-flows, as a function of the fact that we had flooding.

So I consider my operation an aberration in that we did fairly well, considering everything that had happened in the industry. And there were other short lines that were hurt very, very dramatically, and much more significantly, you know, 50 percent-plus.

Mr. WEBER. Wow. Well, thank you for that.

And Mr. Chairman, I appreciate you being here, and I yield back.

Mr. PAYNE. Thank you, sir. Next we will hear from Mr. Cohen for 5 minutes.

Mr. COHEN. Thank you, Mr. Chair and Ranking Member, Mr. Crawford. I appreciate your having this important hearing.

And I would like to talk about the regional passenger rail commission program. It is important for passenger rail, which I have enjoyed from early in my life to now. I am a big fan of Amtrak and passenger rail. And one way to get that going is through regional rail commissions.

There is a Southern Rail Commission that covers Alabama, Mississippi, and Louisiana. There needs to be more, because I think they can highlight the need for transportation throughout a State. Memphis has got hopes of having transportation to Nashville, could connect to Knoxville, and even to Chattanooga, and make travel to all those cities much more feasible, rather than automobile.

We used to have nonstop air traffic to all those cities. We don't have it, even out of Memphis, which was formerly a hub. So it is not an easy flight, and rail would be so much easier. We have also got interest in going to Little Rock. We have looked into that in the past. Memphis is one of, like, two cities in Tennessee—Nashville the other—that has passenger rail service. There should be more. And we need a second train to go up to Chicago. And we consider that Cairo stop one that could—train could come down here. So we are looking at regional rail and the Southern Rail Commission kind of as a guide for us.

Ms. Valentine, what are the limitations to organize, implement, invest in, and expand interstate passenger rail service to connect

to communities across the country? Are there limitations that you have experienced?

Ms. VALENTINE. You know, I am familiar with a bill that you have that certainly—you recognize many of the limitations, one being that passenger rail has been undercapitalized for years. And so how do we make those kinds of investments?

In the Commonwealth of Virginia, we do have dedicated funding for rail, but it is still a small percentage, and we are working on building it up.

Two, that planning for rail may often be—you know, extends beyond the term of an administration of—either the Federal Government and at the State level, as well. So making those longer term commitments is really important.

And then the collaboration it takes, because a rail system often crosses jurisdictions. The Commonwealth sees the part that we are playing right now in constructing a bridge dedicated solely to passenger rail as opening the capacity, unlocking the gridlock there, so that rail can be expanded. It is going to create redundancy. The closest rail connection is 70 miles away. I always say, "as the crow flies," because we take longer to drive over to Harpers Ferry, West Virginia. But we are creating redundancy.

We are opening up the northeast-to-southeast corridor, and we are creating a path to separate passenger and freight rail for the Southeast Corridor. We are a member of the Southeast High-Speed Corridor Coalition. We believe that this is a critical start to this, and we are building on many of the recommendations that have come out of that.

So that kind of collaboration, I believe, is fundamental for us to—building out. What you have articulated are the needs for increased connectivity.

Mr. COHEN. Thank you so much, and good luck with your projects.

Mr. Williams, you talked about intermodal corridors, or intermodal facilities, and BNSF has probably one of the largest ones here in Memphis. Is there a need for improvements along Lamar Avenue, or coming in to Lamar, to make BNSF even more successful with its intermodal corridor?

Mr. WILLIAMS. Yes, and that facility there in Memphis was actually where we deployed—and you probably know this—I think among our first electric wide-span cranes.

So the ingress and egress to intermodal facilities is very important. I am not familiar with a specific issue on Lamar Avenue, but would be happy to follow up with your office. Because, truly, intermodal is a part of an integrated supply chain. And so it is not just the rail operations that are important, but also the last-mile delivery, and the trucks that are getting into and out of facilities very efficiently. That is also very important.

Mr. COHEN. So if we did—in the past there have been concerns that we needed some widening of Lamar to make the trucks coming in from Mississippi—facilitate their entry into the facility. That would be helpful for BNSF. And would you all participate in any kind of a program, as a public-private partnership?

Mr. WILLIAMS. Well, because of the broader community benefit, I would see that as a potential for public-private partnership. But

again, I would want to get into the specifics, and get a better understanding on exactly what the ingress and egress issues are there on Lamar Avenue.

Mr. COHEN. If you could get me——

Mr. PAYNE. The gentleman's time has expired.

Mr. COHEN. And with that I yield back the balance of my time.

Mr. WILLIAMS. Will do, Congressman Cohen. Thank you.

Mr. PAYNE. Thank you, sir. Next we will hear from Mr. Stauber for 5 minutes.

Mr. STAUBER. Thank you, Chairman Payne, and congratulations on your new position, and to Ranking Member Crawford for holding this hearing.

You know, we talk about the importance of railroads and shipping our goods across this great Nation, from our agricultural products to our finished goods to coal to LNG and taconite in my State of Minnesota, northern Minnesota. Taconite is shipped by rail to the docks in Duluth, the port of Duluth is the most inland port in our Nation. Those taconite pellets are shipped to make United States steel products.

I want to thank the rail industry for keeping these products and the goods moving across our Nation during this pandemic. People wouldn't have the food the industry has provided across this Nation. And really, the farmers wouldn't necessarily have had the markets for their commodities.

So I have a few questions for Ms. Kraska.

What are the biggest obstacles that you could see coming out of this committee that could impact your business and make it harder to operate?

[Pause.]

Mr. PAYNE. Unmute.

Ms. KRASKA. Increased regulation is always a challenge for us.

A personal one, if—and forgive me, this may or may not be the purview of this committee or subcommittee, but truck size and weights. An increase in those could dramatically tilt the difficulties we have in competing with truck.

In terms of other areas, in terms of the grant programs, we would like a fair shake, in terms of our opportunity to apply and have it work through that with us. If you look at INFRA and some of the other programs, the ability to perhaps not partner with another entity to get them done.

I believe, as a whole, we try to do a fair job. We try to do—or "fair" isn't the word—a good job, and try to do what is right for our communities, our workers, our customers. So things that impact that will make it harder for us.

Mr. STAUBER. Thank you, and one last question to Ms. Kraska again.

When thinking about liquid natural gas, what are some of the legislative obstacles that you see arising, and how can we ensure that they do not impede the transport of affordable, clean energy?

Ms. KRASKA. That is not something that I am very familiar with. I would think, though, as a whole, given that the industry handles a lot of sensitive, dangerous materials, that the requirements can be put in place so that they can be handled appropriately. And I think that could be done.

Mr. STAUBER. All right, thank you, and thank you to all our witnesses for their testimony. It is greatly appreciated.

And I will yield back, Mr. Chair.

Mr. PAYNE. I would like to thank the gentleman for yielding back, and we will now hear from the gentleman from New Jersey, Mr. Sires.

[Pause.]

Mr. PAYNE. You are on mute.

[Pause.]

Mr. PAYNE. I believe you are on mute, Mr. Sires.

Mr. SIRES. OK, can you hear me now, Chairman?

Mr. PAYNE. Yes, yes.

Mr. SIRES. I went back on mute again. I just love this stuff. Can you hear me now?

Mr. PAYNE. Yes, we can hear you.

Mr. SIRES. OK. Well, first of all, thank you, Chairman, for holding this hearing. This is a very important hearing, not only for our district, but for America. And I also want to thank the witnesses for being here today.

You know, I am a big rail person. I believe that rail is critical to this country, especially when you come from the districts that we come from, the chairman and I. It is so congested. So over the years I have been very involved with light rail. And we have a light rail in Hudson County. At its peak it used to move about 45,000 people. But it is so important. It moves people from north to south, it ties in to the ferry, it ties in to the train stations that go into the city. And it moves people a lot quicker than by road, believe me.

Ms. Valentine, can you speak about the investment in light rail that supports growth and efficiency in intercity passenger rail?

Ms. VALENTINE. Thank you, thank you for the question. I love light rail, by the way. We do have light rail over in Norfolk, Virginia. And as far as moving people within an urban area, I believe it is a very effective way to do that.

What we are really trying to do with the rail initiative today is that intercity passenger rail to really make those connections along major corridors, and still try to connect with communities along the way.

Most of our applications for light rail come from jurisdictions. We have not received as many applications for that. It goes through a program called SMART SCALE, where we actually do a cost-benefit analysis for various opportunities. And so that is something that we are going to follow more closely.

But I am really grateful to hear that you really like and appreciate it, as well.

Mr. SIRES. Believe me, I have been very involved with it for about 25 years, even before I got elected to office.

But one of the things that I found out when I was vice chair of the Circle of Mobility Committee in my area is the idea of the cost analysis. Obviously, if you don't have the ridership, light rail doesn't work. So you will always have to subsidize with big amounts of money a light rail. So light rail, I don't think, is for every part of the country. I feel that it is for the areas that are densely populated, so you can move people around.

Sometimes people love to come to the district and see the light rail, and they say, "Oh, maybe we can have this in our area."

And I tell them, "Well, if you don't have the ridership, I don't think you are going to be able to sustain a light rail system."

Subsidies help, and what I can tell you is that, with the light rail, I see the development on the waterfront in New Jersey facing New York City.

Ms. VALENTINE. Yes.

Mr. SIRES. It is amazing what it has done to that area.

Ms. VALENTINE. Yes.

Mr. SIRES. So, in terms of creating jobs, in terms of people moving in, in terms of people spending money in the area, it is a transformation of an area——

Ms. VALENTINE. Yes.

Mr. SIRES [continuing]. That has—it is an old, old area where people used to come in, and when they first came to this country and settled. I mean, you can't afford living in Hoboken today. It has transformed the whole area.

Ms. VALENTINE. May I just add this one point, that when we first launched the intercity passenger rail, Virginia-sponsored passenger rail back in 2009, it really started with a pilot. It was $17 million for 3 years from Lynchburg, Virginia, into DC, into the Northeast Corridor. And I had to make sure that we had 51,000 riders. And we didn't know if we were going to be able to sustain it.

And in that first year we had 125,000 passengers. It always exceeded expectations for ridership and profitability. And today that rail service, which we now extend over to Roanoke, and we are working to get it to Blacksburg, Christiansburg, is really one of our most profitable rail services. In fact, probably in the country. It doesn't even need a subsidy, because they are able to generate that kind of ridership.

Sometimes, when we are looking at solutions, targeted solutions, these are the investments we can make to really tie in those connections between centers and between business owners. So your point is——

Mr. SIRES. Thank you very much.

Thank you, Chairman.

Mr. PAYNE. Thank you, sir. Next we will hear from Mr. Burchett.

Mr. BURCHETT. Thank you, Mr. Chairman. Thank you, and congratulations on chairing this great subcommittee.

I want to thank you for something you do—it seems like every time I am on the floor, giving a floor speech, you are there, as well. And you are always, as a friend of mine who has passed away—he was very famous in our community, a man named Alex Haley used to say, "Find the good and praise it." And, dadgummit, every day you are down there praising somebody in your district, some person that maybe won't ever get any Nobel Peace Prize, but dadgummit, they are doing something for our community. And I want to thank you for doing that, because that means a whole lot to a lot of people when you do that. So thank you.

Mr. PAYNE. Thank you.

Mr. BURCHETT. It does not go unnoticed. I just want you to know that, Mr. Chairman.

Mr. PAYNE. Thank you for recognizing that.

Mr. BURCHETT. Yes, sir. I think we would probably all be better served if we did a little more finding some good and praising it than we are running each other down.

Ms. Kraska, we have four short line railroads that run through Tennessee's Second Congressional District I am fortunate enough to represent. And nearly 30 of those operate across the State. And you might have answered this before at the end of someone else's questions, but I wanted to lead with this: What unique challenges do short lines face, and how can Congress help improve operational flexibility for those small businesses?

[Pause.]

Mr. BURCHETT. I believe you are muted, ma'am.

[Pause.]

Mr. BURCHETT. Or maybe, like a lot of people in this body, you just don't want to talk to me.

Ms. KRASKA. No, no, I am more than happy to talk to you. Can you hear me?

Mr. BURCHETT. Yes, ma'am.

Ms. KRASKA. OK.

[Pause.]

Mr. BURCHETT. How can we get off your back, and make your life a little easier?

Ms. KRASKA. That is an interesting question, one that I was actually not expecting.

Regulations are difficult for us, and that would probably be the top area.

Mr. BURCHETT. Could you name me a couple of those? I know I am kind of putting you on the spot, but just a couple maybe we could address at some point?

Ms. KRASKA. OK, well, let—if you don't mind, if I could get back to you with the priorities on those.

But in terms of other items, as well, to make it easier for us, truck size and weight grants would be helpful for us to build our infrastructure.

In terms of the specific regulations, we have a fair amount of reporting that is challenging. I don't know the specifics, but I hear my safety individual complaining about a new regulation that is going to go ahead and create hours and hours of labor in reporting. So I think I would request that when new things are put in place, that there be a look at how much work it involves for us, as we are small companies.

I know many things are phased through the short lines after they go through the Class I's. But I will get back to you specifically with——

Mr. BURCHETT. Yes, ma'am. I appreciate that. It is Tim Burchett from the Second Congressional District in Tennessee. I would really appreciate that.

Mr. Williams, the Federal Highway Administration expects U.S. freight shipments to increase 30 percent over the next 20 years. And what are railroads like yours doing to prepare for this increase in freight shipping?

As you know, in my colleague Congressman Cohen's district, BNSF Railway operates over there in western Tennessee. And I am

wondering what regulatory changes do you need to see that we could make to better serve our Nation?

Mr. WILLIAMS. Yes, there are several that I outlined in my written testimony. But one specific—and it is important to me, as the leader of our intermodal business, and this is where we expect a lot of those trucks to find their rail opportunity—is that we are able to get through the permitting process at a pace enough to allow us to invest, especially in the endpoints of our network.

And our network connects the Mississippi River Basin through Chicago, all the way to all of the west coast ports. And so the efficiency of intermodal along those long-haul corridors between the Midwest and the west coast, and being able to invest in additional safe and clean lift capacity in those locations, as this demand pace ramps up, I think is going to be very important.

Mr. BURCHETT. All right. Thank you, sir.

Mr. Chairman, I yield back the remainder of my time, and do some good today, sir.

Mr. PAYNE. Thank you, and I appreciate the comments, and look forward to continue working with you.

Next on the roster is Mr. Wilson.

You have five—I am sorry. Ms.—I apologize, Ms. Wilson. Oh, my goodness. My friend, my friend.

Ms. WILSON OF FLORIDA. How are you today?

Mr. PAYNE. I am going to pay for that one.

Ms. WILSON OF FLORIDA. You know that.

Mr. PAYNE. Where is your hat?

Ms. WILSON OF FLORIDA. I am voting virtually today, so I decided not to wear a hat. But I don't see a red tie.

Mr. PAYNE. That is right.

Ms. WILSON OF FLORIDA. So congratulations, your first meeting, your first hearing, and I am so very proud of you.

I want to say to everyone thank you for your testimony. This is quite interesting.

Freight and passenger rail service plays an integral role in my district's economy and across our Nation. Miami was a town of fewer than 300 people before the arrival of Henry Flagler's railroad. Today Miami is one of our Nation's largest cities, and a leader in global commerce.

Services like Metrorail, Tri-Rail, Amtrak, and Brightline help mitigate congestion, while reducing greenhouse emissions. My constituents and I have experienced immeasurable benefits of the industry, and we appreciate it in south Florida. The rail industry also is a glowing example of the strength of unions, and the unions' ability to provide a path to the middle class, even for those without a college degree.

As we tout the benefits of the rail industry, we also must ensure that safety efforts keep pace with growth and innovation. I look forward to working with my colleagues to improve America's rail system and safety efforts to meet our environmental and economic needs.

With that, I have a few questions. Mr. Regan, as a cosponsor of the PRO Act and strong supporter of unions, I have worked so hard to help keep this legislation passing during the past two Congresses. I am pleased to have the opportunity to speak with you

today. And although the PRO Act does not impact rail workers specifically, it will still bring unionization to other sectors. Please share with us the benefits that unionization brings to its workers.

Mr. REGAN. Thank you, Congresswoman. And I appreciate your strong support of the PRO Act. While, as you noted, it does not affect rail or aviation workers, it would be a huge benefit to our economy and to workers throughout the country.

From our perspective, from TTD's perspective, we represent industries, including rail, that are highly unionized. And because of that, these are jobs that are a pathway to the middle class. They have higher wages and benefits. They are industries where, truly, we have a middle-class job base. And that is true across transportation: rail, aviation, transit, maritime.

And it is not an accident. It is because of the strong unionization in those industries. It is because of the strong collective bargaining rights. And it is something that should be afforded to workers throughout our economy and throughout the country.

Ms. WILSON OF FLORIDA. So how can Congress work with the rail industry to effectively develop and deploy green solutions?

Mr. REGAN. Certainly. We think that many of our transportation modes, the investments that we can make in transportation, are inherently green. We think rail is a green industry, and it is one that we, frankly, should see more Federal investment in, as we make sure that we can expand passenger rail access, that we can expand commuter rail access, things like this. So these are green investments that Congress can make.

But we need to actually make the investments. It needs to be a situation where Congress is setting the course and making those initial investments into these industries so that we are going to have the passengers come, we are going to see the increase in freight. But it needs to have that initial investment. Otherwise, we are not going to see the benefits, unless people are willing to take that first step to make the investments that are needed.

Ms. WILSON OF FLORIDA. Oh, we will certainly be helping you with that.

Ms. Valentine, in your testimony you called on Congress to consider a capital grant program to help expand passenger rail in your State. In Miami, Brightline is privately funded. And although we do have safety challenges, what impact could a capital grant program have in helping States and localities expand passenger rail? That is important for Miami.

Ms. VALENTINE. Yes, yes. And we really appreciate everything that is being done in Miami, from a multimodal perspective.

One of the things that passenger rail is really lacking is a long-term, sustainable source of funding that would allow States to make investments in larger passenger rail initiatives, or a program of projects. It is allowing us to create a vision and being able to implement it.

Even this piece that I am bringing to you today, we have put together with State regional resources, working with partners, trying to put together a financial plan that works. If we could work with Congress on capital funding that would be sustainable over a longer period of time, I believe we could build out a national rail

network with meaningful connections in a far more accelerated way.

Ms. WILSON OF FLORIDA. Thank you. Thank you so much.

I yield back.

Mr. PAYNE. I would like to thank the gentlelady for yielding back, and good to see her.

I next go to Mr. Johnson for 5 minutes.

Mr. JOHNSON OF SOUTH DAKOTA. Thank you, Mr. Chairman, and I will start with Mr. Williams.

And Mr. Williams, I suspect you know as well as I do, if not better, that the United States competitive advantage in the global grain and soybean markets comes so much because of our ability to quickly and efficiently move product from the Midwest, ag products from the Midwest, to our ports. And I know BNSF has invested a lot of money in trying to make that more efficient. I think, in the report you included as a part of your testimony, you noted you all have invested $3.5 billion in 2019, and I am sure a lot of that did help with agricultural transport.

But aside from the private investment that the railroads are making, should we be looking at any particular role for the Federal Government in maintaining that American superiority and competitiveness in those grain markets vis-a-vis the efficient shipment?

Mr. WILLIAMS. Well, I appreciate the question. Our agriculture business is certainly core to our franchise.

And I agree with the point that our rail system helps support the comparative advantage that the agriculture and farming community has in the global economy.

And I would really say just let us keep doing what we are doing with our private investment. And we have invested significantly to support the bulk ag franchise, and we have also opened up some new facilities to support agricultural loading and containers.

And again, working through that private investment has been a successful model for us, and it really has positioned our agriculture business quite well.

Mr. JOHNSON OF SOUTH DAKOTA. So you mentioned containers, and I thought in your testimony you did a good job of walking through the interconnectedness of the system. And I think you all moved 5 million intermodal shipments last year, which is just mind-blowing.

I mean, we are getting increasing reports of ocean carriers refusing to carry ag products, which means that we are getting empty containers hauled back to Asia from American ports. Is that impacting you all at all?

I mean, is it backing up? Is it disrupting in any way your network?

Mr. WILLIAMS. I have read about that occurrence. And our intermodal contracts are directly with carriers, whether it is domestic truckload companies on the domestic side of our intermodal business, or the shipping lines on the international side.

We are moving what is tendered to us by the shipping lines to support the westbound movement, both loaded and empty volumes back. So I wouldn't say that there is anything there that is inherently disrupting our rail operations.

Mr. JOHNSON OF SOUTH DAKOTA. So you haven't seen any particular change in your volumes, particularly with regard to empties moving back to the Midwest?

Mr. WILLIAMS. Empty container loadings are up, that is a fact. And there are certain locations—I would say we still do have a very robust operation loading agricultural commodities in containers, as well. But it is a fact that the empty westbound movements are up.

Mr. JOHNSON OF SOUTH DAKOTA. Well, if you see, Mr. Williams, any bigger, more substantial, more material changes in that, certainly let the committee know. I know a number of Members of Congress on both sides of the aisle are really following this ocean carrier situation.

A question for Ms. Kraska—and I thought you did a really good job, particularly in the attachment to your testimony, walking through the incredible benefits of the 45G tax benefit, how it has increased safety, improved investment.

I also thought your testimony did a good job walking through specific improvements that could be made to the INFRA program to make it more usable for short lines.

With regard to 45G, the short line rail tax credit, is there anything Congress should be looking at to make that even more effective for you all?

Ms. KRASKA. I certainly appreciate the fact that Congress had made it permanent, and keeping it such would be a huge boon to us.

As a small business owner, one of the things that I have to say is, prior to that, what I had done was, on an annual basis, provide two budgets for my company, one with 45G, one without 45G. I am happy to have it in place, as long as it is in place.

Of course, I would appreciate the dollar amounts being increased. But knowing that you have something and that you can rely on it is more important.

Mr. JOHNSON OF SOUTH DAKOTA. Very good, that makes sense. Thanks, Ms. Kraska, and thank you for your testimony calling out the over 700-mile-long RCP&E line in South Dakota. I enjoyed reading that, of course.

And with that, Mr. Chairman, I will yield back.

Mr. PAYNE. I thank the gentleman for yielding back. Next we will have Mr. García.

Mr. GARCÍA OF ILLINOIS. Thank you, Chairman Payne and Ranking Member Crawford, and, of course, thank you to all the witnesses that have appeared today.

I represent Chicago, the busiest freight rail hub in the country. And each day over 500 freight trains and over 750 passenger trains move through my city. Nearly 25 percent of all freight trains pass through Chicago. And our Union Station serves as a corridor gateway to Amtrak's entire national network.

To Mr. Greg Regan, Mr. Regan, the railroad sector has been an extremely important industry to the city of Chicago. My district is home to over 700 rail employees, with thousands more in surrounding districts. I am concerned about your comments on the loss of good union jobs in the freight rail industry, given that these

well-paid jobs have supported Chicago families for decades. Can you explain what is causing these job losses?

Mr. REGAN. Sure, and thank you so much for your question, Congressman.

You know, I do think it is a, in my view, Wall Street mindset that is coming to the freight railroad industry. As opposed to a longer term sort of sustainable growth that we have seen for a long time, it is, frankly, more of a focus on short-term returns. And that is something that we have seen from a reduction of both the number of people that are being employed by the railroads, as well as, you know, frankly, sort of changes in how they are operating for the shippers.

As I said before, our primary focus is on the impact of safety of this operating model. We want to make sure that our members and the communities that these railroads are operating through are being done so in a safe manner. And so we are just going to continue to focus on that, and make sure that they are being appropriately regulated to maintain safety.

Mr. GARCÍA OF ILLINOIS. Thank you.

Secretary Valentine, on February 24th, the U.S. Department of Transportation issued a 30-day notice adjusting the rail passenger transportation liability cap, as required by the Fixing America's Surface Transportation—FAST—Act, by raising it from $294 million to $322 million.

The current state of the passenger rail liability insurance market is poor, and there are limited to no domestic insurance providers that offer this coverage. The situation has led to high premiums to commuter railroads, and has required commuter railroads to purchase complex insurance tiers from international markets, instead of a single insurance policy to meet the liability cap. This can be extremely expensive and somewhat cumbersome to implement.

Could you please describe how the passenger railroad liability cap has impacted commuter railroads in Virginia, to your understanding?

And also, what can the Federal Government do in the long term to address the insurance markets, to provide more cost-effective insurance policies for American commuter railroads?

Ms. VALENTINE. Well, hello, thank you. I was actually just being briefed yesterday on some of the impacts of that increase in the liability cap. Certainly, it is an issue of funding, and making sure everyone can afford it. But my understanding is that the greater issue is access, access to getting the insurance in time for the deadline, which I believe is March 27th.

So I know that there is a coalition of commuter railroads working with our Federal partners to see if there could be some actions taken to either extend it by Executive order or perhaps some congressional authorization to allow the commuter railroads to secure that additional liability insurance in time to meet that.

And then, over the longer term, working with the insurance industry, as you have alluded to, how can we address this issue, prepare for it, and make sure that all of our railroads are protected and able to provide service?

Mr. GARCÍA OF ILLINOIS. Thank you. And Mr. Williams, turning to you, given that BNSF has already purchased 500 tier 4 loco-

motives, what do you think can be done to encourage the further adoption of tier 4 locomotives at BNSF? And industrywide, of course.

Mr. PAYNE. Thirty seconds.

Mr. WILLIAMS. Our customers are demanding that we continue to press on environmental sustainability. And so I think our customers are going to be our biggest motivation to continue to deploy and explore sustainable technologies, including the sustainability of our locomotive fleet. But we do have the newest and cleanest burning locomotive fleet in North America.

Mr. GARCÍA OF ILLINOIS. Great, thank you. Mr. Chairman, I yield back.

Mr. PAYNE. I thank the gentleman for yielding back. Now we will have Mr. Nehls.

Mr. NEHLS. Mr. Payne, congratulations on your position as chairman of this subcommittee. And I look forward to working with you and the other Members.

Mr. PAYNE. Thank you, sir.

Mr. NEHLS. Yes, sir. My comments and question are directed at Mr. Williams.

I want to thank you, Mr. Williams, for being with us today. I would like to commend BNSF on the safety record. Your written testimony details a significant reduction in rail accidents over the past two decades, in addition to an impressive safety record for your employees. So I want to commend you for that, and I want to say you are moving in the right direction.

I believe one could attribute the success to your proactive approach to innovation and capital reinvestment. I know that BNSF has a huge presence in the great State of Texas, and you are certainly very visible in my district, Congressional District 22.

So my question, you mentioned in your testimony the recent cold weather event in Texas impacted normal train operations. Could you elaborate more on the impact this had on BNSF?

Mr. WILLIAMS. Yes, thank you for the question and the comments. We do prioritize safety as the top of our decision tree, when we are making decisions at BNSF.

As a Fort Worth resident—and I am in Fort Worth today—I had personal experience with the storm in Texas. But it certainly had impacts to our operation.

And any time there is a disruptive weather event, especially one as significant as the storms we had a couple of weeks ago, it has impacts on the entire North American network, because these freight networks are so interconnected. You have railcars that are deployed on trains going into the weather event, but you also have shipping containers that are queuing to get to facilities that may have been closed for a couple of days due to the outage. And all of that slows down the cycle time of the assets that need to be redeployed back to high-demand places—for example, the ports on the west coast—to get those next loads.

And so weather events like that do have impact, broadly, to freight networks.

Mr. NEHLS. Very well. Are there any Federal policies that we should be aware of in this subcommittee that could maybe alter for you to have a quicker return to normal operations?

Are there any issues that need to be addressed on our side?

Mr. WILLIAMS. I am not aware of anything new, but I do understand that, when we have events like that, our transportation team works with the FRA on waivers that allow us to safely redeploy assets or recover quickly. And so that temporary waiver process, when we have a big, disruptive event, to help us safely get back on track, continuing that, I think, would be important.

Mr. NEHLS. Thank you, Mr. Williams.

Chairman, I yield back.

Mr. PAYNE. I thank the gentleman for yielding back. Next we will have the gentlelady from Washington, Ms. Strickland.

Ms. STRICKLAND. Great. Thank you, Chairman Payne and Ranking Member Crawford.

As our witnesses and many of our colleagues have shared today, the Federal Highway Administration predicts that total U.S. freight shipments will increase by 30 percent in the next 20 years. And with nearly 140,000 workers in our rail industry, we know that so much of our economic success and recovery hinges upon the success of our rail system and on the employment and safety of our rail workers.

And since I represent Washington State in a district with key roles in trade that cannot be overstated, I would like to start with Mr. Williams of BNSF. And BNSF, of course, is no stranger to Washington State.

So as your testimony noted, Mr. Williams, over 40,000 marine vessel trips go through the Ballard locks in Lake Washington's ship canal each year to and from the Puget Sound. It is a big corridor, as you know. And there is also the Salmon Bay Rail Bridge, which is a key part of our State's economy. So can you just speak to us about the value of investing in rail infrastructure projects like these, like this bridge, and the impact that it could have on our State and our economic competitiveness?

And then secondly, please let us know what you are doing to look to the future, and your vision on the economy, in ensuring that resiliency and environmental efforts on safety are part of what we do. Thanks.

Mr. WILLIAMS. Thank you for the question, and thank you for having me today, Congresswoman Strickland.

And I probably could use the entirety of your remaining time to talk about the Salmon Bay Bridge, because it is such an interesting——

Ms. STRICKLAND. Yes.

Mr. WILLIAMS [continuing]. Part of the engineering history of our railroad, there on the North Side of Seattle. But as you noted, it is a bridge that raises up and down to support both freight and commuter trains, as well as the marine traffic that goes in and out of the Puget Sound. And so it is an old piece of technology.

There is a significant amount of community benefit. And so, think about it in terms of a public-private partnership. If the bridge was stuck up, freight would have to move on the highways, commuters would have to find another route. If the bridge was stuck down, the marine traffic would be suspended. And so, working out a long-term solution to that, as you know—and I know you are very familiar with the project—is very important.

And then, long-term outlook on the economy, I think all of the west coast ports—and certainly we work very closely with the Northwest Seaport Alliance on trade, but international trade is so important to our economy. And so continued investments around those connector points, and certainly enabling us to continue to aggressively invest in our intermodal network, I think, are important factors for how trade impacts the U.S. economy.

Ms. STRICKLAND. Great, and then I want to switch now to passenger rail. And, as you know, this hits close to home for us in the 10th Congressional District. And there have been big strides made in Positive Train Control, with railroads meeting the end of the 2020 deadline for implementation. But there is still so much more that we can do, not just in one State, but, really, across the entire system.

So can you talk about what we are doing to look even beyond Positive Train Control to keep our workers and passengers safe?

And how does that tie into our economic success?

Mr. WILLIAMS. So PTC is one of many risk mitigation efforts in the rail industry, and certainly on our network. But the advancement of PTC, no doubt, is an important measure.

We were excited to be, I would say, a pioneer in PTC before it was a Federal mandate. And we have gone significantly beyond just the mandated corridors for PTC to a point where I think it is 93 percent—it is in my testimony—of the freight that moves on our network, moves on a subdivision that is controlled by PTC.

So, I know I have said it multiple times today, but safety is a priority, and I think you have seen numbers that bear out there is continued improvement in safety over time in the rail industry. We are very motivated to protect our employees and continue that good path. And PTC is just one of many measures in our safety program.

Ms. STRICKLAND. Thank you, Mr. Chairman. I yield back.

Mr. PAYNE. I thank the gentlelady for yielding back. Next we have Mrs. Steel.

Mrs. STEEL. Thank you, Chairman, Ranking Member, and the witnesses today. I think it is important that, as a committee, we have conversations like this about the future of rail in our country. As a California taxpayer, I want to use this opportunity today to talk about a rail project in our State that is expected to cost residents more than $100 billion—with a B.

Construction on the California high-speed rail project started in 2015. In 2010, the Obama administration gave the project $2 billion with a requirement to have the first segment operational by 2022. It has been 6 years, and construction has barely inched along.

Meanwhile, a 2018 report from the California State Auditor referenced the California High-Speed Rail Authority's flawed decision-making and poor contract management, which contributed to billions in cost overruns and delays in construction.

This project is a waste of taxpayer dollars. In 2019, Governor Newsom shortened the project by more than 200 miles. I don't think any more Federal money should go to this project. I introduced a bill that prevents more taxpayer dollars from funding this train to nowhere.

I have taken high-speed rail from Osaka to Tokyo so often when I was raised in Japan. It is very efficient and cost-effective. But we don't have the infrastructure here to support the bullet train like this in California. And unfortunately, this has been figured out in real-time at taxpayers' expense.

To be clear, I don't oppose all high-speed rail projects, but I am very concerned about protecting private landowners and taxpayer dollars.

Having said that, I want to ask just one really simple question to Ms. Kraska, that there are so many conversations about high-speed rail in the country, and I want to ask you how you believe future high-speed rail projects can be successful, while at the same time protect taxpayer dollars in the United States.

Ms. KRASKA. I am a small short line, 150 miles, and we do not have any passenger trains. It is possible at some point in the future that something like that might happen. But I don't think it is particularly likely in my timeframe for my area.

So having said that, basically, I think passenger transportation, high-speed, is very desirable. But there needs to be the public-private partnership with all parties involved, making sure that the various aspects of it that are important, that will contribute to the success of a program, are in fact discussed and laid out in advance.

I, too, have been on the bullet train. So I know exactly of what you speak. And I understand that, yes, for us to be successful here, the infrastructure would have to be further developed, as well.

Mrs. STEEL. Thank you, Mr. Chairman, I yield my time.

Mr. PAYNE. I thank the gentlelady for yielding. Next we have the gentleman from Georgia, Mr. Johnson, for 5 minutes.

Mr. JOHNSON OF GEORGIA. Thank you, Mr. Chairman, and congratulations on your maiden voyage as chair of this committee. And thank you for holding this hearing.

Mr. Williams, rail——

Mr. PAYNE. I would like to thank the gentleman.

Mr. JOHNSON OF GEORGIA [continuing]. Is one of the most climate-responsible transit options available to us. And freight railroads account for 28 percent of freight volume, but only .6 percent of total U.S. greenhouse gas emissions, and just 2.1 percent of transportation-related greenhouse gas emissions, according to EPA data. We know that the pace of climate change is rapid, it is real, and the crisis is only worsening. So the time to take bold action is now.

Your testimony highlights the many environmental advantages of rail. How urgently do we need to expand our national rail network in order to have a more positive impact on climate change?

Mr. WILLIAMS. Well, I think you pointed to the inherent underlying benefit of just rail as it exists today, and customers are more aggressively seeking rail solutions in their supply chains. And so we are very motivated to expand the capacity on our network to be able to handle more of our customers' freight. And so certainly, the ability to permit competitive rail projects for expansion is very important.

And then our customers are also driving us not to just rest on our laurels, that rail, as it exists today, is inherently an environmental benefit, but continuing to push on greener technologies in

our operation, whether it is the locomotive fleet, the cranes that operate at our intermodal facilities, the trucks that go in and out of our intermodal facilities, and so forth.

But I think the biggest opportunity, in terms of expanding rail, is enabling us to invest in permit projects to grow as our customers' demand increases.

Mr. JOHNSON OF GEORGIA. Thank you. Do you believe that State and local governments generally appreciate the environmental impact, positive environmental impact, in terms of their plans on expanding their rail networks?

Mr. WILLIAMS. I think it is very mixed, and we have had challenges permitting very green projects. Certainly in southern California, we have spent the better part of 15 years trying to permit what would have been the greenest intermodal facility in the country and have very significant environmental benefits locally. But it is still—getting through the permitting process has been a challenge.

So I would say our experience is mixed on that.

Mr. JOHNSON OF GEORGIA. Thank you.

The inclusion of women- and minority-owned small businesses in the expansion of our national freight network is imperative, in my view. And this means preserving and strengthening the DOT's Disadvantaged Business Enterprise program. Mr. Regan, do you have an opinion as to the importance of disadvantaged business enterprises to State and national economic development?

Mr. REGAN. Absolutely, we are entirely supportive of supporting Federal programs that will enhance minority- and women-owned businesses. And we think that, yes, the Federal Government rightfully plays a strong role in making sure that we can have more economic opportunity for different communities in the freight railroad industry.

So whatever we can do to be supportive of these programs and to provide more investment and opportunity, we will do that.

Mr. JOHNSON OF GEORGIA. Thank you.

Any witness can answer this question. As we prepare for the introduction of this new surface transportation reauthorization bill, how can this committee further prioritize robust rail investments?

Mr. REGAN. I am happy to. Congressman, if you are looking at the passenger side, for instance, there is a clear desire from the American people for more and expanded passenger rail service.

I know there were some critical comments about high-speed rail earlier, and I think there are inevitably going to be hurdles when you are the first to make that big investment. But clearly, as other countries have demonstrated, it is possible, and we are, frankly, just falling behind in not making the investments to make high-speed rail, and real high-speed rail, possible in this country. So we need to continue those efforts.

The other thing, I think, when it comes to freight, focusing on intermodal investments is an important part of that. I think one of the biggest concerns that you hear from ports is that there isn't enough access so that we are connecting our maritime shipping with our rail shipping. And we need to make the investments in our intermodal facilities, with the appropriate Federal protections,

labor protections, a priority here to make sure that the entire system is operating appropriately.

So I think there is a huge amount of opportunity here, and there is a huge amount of opportunity, both from an economic perspective, a jobs perspective, and a passenger and user perspective. And we just need to tap that investment from the Federal level to make it a possibility.

Mr. JOHNSON OF GEORGIA. Thank you.

Mr. PAYNE. Thank you. The gentleman's time has expired, but I appreciate his line of questioning. It is very important. So I thank the gentleman.

Mr. JOHNSON OF GEORGIA. Thank you.

Mr. PAYNE. Next we have Mr. Fitzpatrick.

You have 5 minutes.

Mr. FITZPATRICK. Thank you, Mr. Chairman. Thanks to all the panelists for joining us today. We really appreciate all your service. My questions actually are for Mr. Regan.

Sir, it is very good to see you. If you have already answered this, forgive me, but I wanted you to expand on the record, so we have it on the record, the importance specifically of the freight rail workers, specifically the freight rail workers with respect to their roles keeping our economy going during the pandemic, because I think they get overlooked a lot. And I want that on the record. If you could, just share any additional thoughts that you haven't already shared.

Mr. REGAN. Absolutely. Thank you, Congressman. It is good to see you, as well.

Freight rail workers have been frontline workers keeping our economy going throughout this pandemic, making sure that we had medical supplies, food throughout the country. They have provided that link that has been necessary throughout all of this.

One thing that, unfortunately, is true is that there is a constant push to cut back on crew size, there is the push on PSR that has undermined, I think, the worker's role in this overall economy. And for us, we think that there are going to be necessary regulations to make sure that there is a balance in the safety, and balance in the workforce concerns as we move forward and grow this industry in the future.

So we really think that there is an opportunity here to not only be one of the most forward-looking and advanced freight systems in the country, but also one that supports a middle-class workforce that is key to bringing our economy back.

Mr. FITZPATRICK. Thanks. And, you know, as our rail system faces a lot of challenges, for sure—according to STB, there are currently about 113,000 Class I freight railroad employees, which is down from about 152,000 less than 4 years ago. Could you share with our committee what Congress can do, what the rail industry can do to ensure that we have a strong workforce, going forward?

Mr. REGAN. Yes. I think Congress has a number of tools in its toolbox to create and promote good freight jobs. We strongly support a robust surface transportation bill that can address the crumbling infrastructure across our country that is slowing both freight and passenger rail.

And we also need to look at policies that will increase intermodal rail connectors at ports and harbors, as I mentioned earlier, and just put the investment there to make sure that the industry can continue to grow.

[Pause.]

Mr. PAYNE. I am sorry, Mr. Fitzpatrick, I think you are on mute.

Mr. FITZPATRICK. Yes, sir. I yield back, Mr. Chairman. I am sorry.

Mr. PAYNE. Oh, thank you, sir.

I ask unanimous consent that Members not on the subcommittee be permitted to sit with the subcommittee at today's hearing and ask questions.

Without objection, so ordered.

Next we will have the gentlelady from Nevada, Ms. Titus, for 5 minutes.

Ms. TITUS. Thank you very much, Mr. Chairman. I would like to ask Secretary Valentine a couple of questions, if I could.

I represent Las Vegas, Secretary Valentine. We haven't had passenger rail service there since the late 1990s, when Amtrak ended their long-distance Desert Wind service. That particular train came to Las Vegas in the middle of the night. Now, knowing Las Vegas, that may not seem like such a deterrent, but looking at other railroad studies we know that that is not the best time to encourage passenger travel.

Also in Las Vegas we welcome about 42 million travelers a year. One-fifth of them come from California, and 85 percent of those drive on I–15, which has gotten very congested as the highway that connects Los Angeles to Las Vegas.

For all of those reasons, it makes sense to expand passenger rail service. We are now in the process of moving forward with what they are calling the Brightline West project, and that is trying to build new, private passenger service between the two areas, which will help reduce both traffic and emissions.

You mentioned some of the work that you have done reviving the Southeast Corridor, the speed rail proposal for that area. I wonder if you could talk about some of the things you have learned, or best practices, or some of the things we could use to do the same thing in the Southwest.

You also mentioned potential Federal support in the form of a capital investment program. I wonder if that can be used as a public-private partnership, as well.

Ms. VALENTINE. Thank you so much, and congratulations on all your work out in Las Vegas.

So, anyway, I did have to laugh when you were talking about the night time.

Our project, in my mind, is really the first step in creating that southeast high-speed corridor. We have to build the bridge in order to expand access. We need to be able to begin separating passenger and freight. And even before that is able to occur, building sidings and creating the ability to move both.

We took a lot of lessons from a study called the DC to RVA. Again, it is the first part of that high-speed Southeast Corridor. For us it was recommended that we take an incremental approach. Rather than having a large, $100 billion project, we were doing it

in increments. And so this is a $3.7 billion approach, which is still going to help us over 10 years create hourly service between Richmond and DC.

It was recommended that we use existing infrastructure, and right away. So in our negotiations with CSX, we are acquiring 386 miles of right-of-way, and 223 miles of track. We are also purchasing as a part of this an S-line. It is abandoned. It goes down into Ridgeway, North Carolina, from Petersburg, Virginia, just south of Richmond. Because it is abandoned, we have a lot of opportunity for development for future phases, for even higher speed rail, and we actually included part of Buckingham Branch. It is an east-west freight corridor that we would like to upgrade and protect for east-west connection.

All of these were incremental steps using existing right-of-way and tracks, and achieving higher speeds where it was achievable. There are times when topography and different elements come into play, and so we are trying to go for the highest speeds that we are able to achieve.

But what we are really delivering, and I think you know this from your question, is reliable, predictable transportation. We want to be able to deliver ridership on time, and with regular performance. So we are really striving in all of our negotiations to make performance and reliability the most important target.

Ms. TITUS. Well, thank you very much. Did you look at the possibility of development incentives around potential stations as a way to contribute to funding?

Ms. VALENTINE. That is a longer term objective. At this point we are really just focused on building out the rail corridor, and what is possible. We have our stations, but that is not a part of this initiative.

Ms. TITUS. OK.

Well, thank you, Mr. Chairman. I yield back.

Ms. NEWMAN [presiding]. I will now recognize each Member for 5 minutes for questions, and I will start by recognizing Mr. Auchincloss first.

Mr. AUCHINCLOSS. Thank you. And I appreciate the opportunity to be here today to speak about rail and the economic power that it portends.

Secretary Valentine, you put it well in your written testimony that in 2009, rail reached 49 percent of Virginians, 53 percent of jobs. Today it reaches 77 percent of the population, and 88 percent of jobs. In other words, "not enough." And in my district and in Massachusetts we also have a lot of work to do.

South Coast Rail in my district is critical to two major cities: Fall River, which, along with New Bedford, are the only major cities within 50 miles of Boston that do not currently have commuter rail access. It is going to boost economic development, it is going to boost access to jobs and services. And yet it took 30 years to get South Coast Rail fully funded and to break ground on its construction.

Secretary Valentine, it is my understanding that the Virginia Department of Transportation has been a pioneer in using SMART SCALE, which I know Transportation for America and the University of Wisconsin–Madison have helped foment. With a project like

SMART SCALE that evaluates transportation infrastructure by how much it contributes to access to jobs and services, do you expect that rail projects like South Coast Rail and passenger rail in general would be easier to fund, and would be prioritized faster by virtue of connecting more people to jobs and services?

Ms. VALENTINE. I believe elements could certainly be. You know, SMART SCALE is based on safety and accessibility, environmental impact, land use, various factors, including economic development. We actually measure those factors and score them against the cost of implementing them.

Our rail and transit projects actually do very well through our SMART SCALE program. The issue being for larger intercity passenger rail, commuter rail projects, it would far exceed what we are able to actually invest in a SMART SCALE project. For Virginia, we were—you know, our last round was about $850 million. This year, through the passage of an omnibus transportation program, we have about $1.3 billion for the entire Commonwealth.

So if we could use and leverage these funds with other sources, partners, Federal dollars to create a vision and a long-term, sustainable investment in passenger rail, I believe we can accomplish what you are trying to accomplish.

Mr. AUCHINCLOSS. And to make sure I am understanding that, I will frame it back to you. If the Federal Government under DOT was using a SMART SCALE-like evaluation that was looking at ROI for a given transportation project based on safety, as you said, but also connection to jobs and services, how much——

Ms. VALENTINE. Yes.

Mr. AUCHINCLOSS [continuing]. The labor market gets, you think that funding—that the Federal Government would match for States would tend to raise up commuter rail projects, passenger rail projects, relative to highways?

Ms. VALENTINE. You know, in my mind, I am thinking how do we leverage State regional dollars, and how do we leverage Federal dollars? Imagine what we could do together. So, yes, creating that cost-benefit analysis, having skin in the game for everyone, but really, it is that longer term, sustainable investment that we really need to have to expand passenger rail.

It has been quite an effort to put this $3.7 billion package together to initiate this phase.

Mr. AUCHINCLOSS. Is SMART SCALE measuring sustainability from an environmental perspective?

Ms. VALENTINE. It is measuring the impact of a proposed project, various environmental factors. So it is for a project.

My wording back to you is really the sustainable investment of the Federal Government in these programs. If we could have it over a longer term——

Mr. AUCHINCLOSS. I see.

Ms. VALENTINE [continuing]. Over a longer period, where we can actually deliver larger projects and a program of projects where you create that connectivity.

But again, it is leveraging what we have at the State with what the Federal Government is able to provide. And I believe we could actually work together to create much more of a system for that connectivity that you are looking for in your district.

Mr. AUCHINCLOSS. Well, here I want to reference my colleague, Congressman Moulton's, national rail plan, which would, I think, provide that sustainability, that predictability, and I expect would incorporate much of the criteria of SMART SCALE to create a national funding paradigm for rail. That is why that initiative that he has spearheaded, I think, is so critically important——

Ms. VALENTINE. Yes.

Mr. AUCHINCLOSS [continuing]. To my State and to the Nation. And I yield back my time.

Ms. VALENTINE. Thank you.

Ms. NEWMAN. Thank you, and I will now recognize Mr. Malinowski.

[Pause.]

Ms. NEWMAN. Mr. Malinowski might not be with us still, so we will go to recognizing Mrs. Napolitano.

Mrs. NAPOLITANO. Thank you. And I would like to add my congratulations to the chair for the first hearing, and I have a few questions.

Pardon me.

[Pause.]

Ms. NEWMAN. Mrs. Napolitano, you might be on mute.

[Pause.]

Ms. NEWMAN. Mrs. Napolitano, we will come back to you after we fix your audio, and now I will recognize Mr. Stanton.

Mr. STANTON. Thank you, Madam Chair. I am here today to discuss a critical infrastructure project, the Rio de Flag flood protection project, and how local and Federal infrastructure investments interact with freight rail.

The 100-year flood plain of the Rio de Flag covers large portions of the city of Flagstaff, Arizona. Flagstaff's downtown business district and historic neighborhoods stand to be seriously impacted by a major flood event. And for generations the city has been in a battle to prevent this from happening. A significant flood event could damage 1,500 structures, including homes and businesses in the city, valued at more than $916 million, and cause $93 million in economic damages, a total impact of more than $1 billion.

The BNSF Southern Transcontinental Mainline, which is critically important to BNSF to move freight from Chicago to Los Angeles, runs through the heart of Flagstaff, and it too is located in the same 100-year flood plain. As a result, it has the potential to experience serious negative impact to its operations in the case of a major flood.

Congress, with bipartisan support, authorized and funded the Rio de Flag flood protection project. The existing undersized channel that needs improvement crosses under the BNSF corridor, and portions of the project are planned to be constructed on BNSF property, adjacent to the mainline. Flagstaff has been working on the design of this project with the Corps of Engineers and BNSF for more than 20 years. The total cost of the Rio de Flag flood project is estimated at $122 million.

In fiscal year 2020, the Corps awarded the final $52 million in Federal funds needed to complete its construction. The city is ready to proceed, but coordination has been challenging, due to BNSF's

approval process and the level of mitigation that BNSF is requesting.

Unfortunately, the anticipated mitigation costs $70 to $100 million based on early estimates, a cost the city simply can't afford. These costs, which are in addition to what the community has already committed to the flood protection project, risk significantly delaying its construction or, worse, ending the project altogether.

In addition to the flood project, the city has several other projects in development funded entirely with local resources, including grade-separated rail crossings, a large overpass, a pedestrian tunnel in an active trespassing area. These projects will improve rail safety and reduce vehicle traffic at existing crossings, all of which will benefit BNSF operations and support construction of its third mainline track.

The city and the Army Corps have expressed concerns that the cost and scale of the requested mitigation for the flood protection project are vastly disproportionate to BNSF's operation, and does not incorporate the benefits BNSF will receive from community rail improvements and the flood protection project. If Federal funding cannot be obligated for the Rio de Flag project due to the lack of agreement on an appropriate level of mitigation, the project will lose these funds, and lose more than $30 million that the city of Flagstaff has already invested in this critical project.

I believe we all share the same goals: permanent flood protection for families and businesses in Flagstaff; increased rail safety; and economic opportunity for both the city of Flagstaff and BNSF. So it is my hope that the necessary approvals can be advanced, and that efforts to reach resolution on mitigation can proceed expeditiously to keep this critical flood protection project viable so both Flagstaff and BNSF can reap the benefits.

Mr. Williams, I look forward to continuing to work with BNSF and the city of Flagstaff on this important infrastructure project. I have several questions that I will submit for the record, and appreciate your prompt reply. And in the time remaining I would certainly welcome any comments you may like to make. Thank you very much.

Mr. WILLIAMS. Well, you very appropriately recognized the importance of our line through Flagstaff on our network. And that route supports not only local, but certainly on the order of 80 or 90 intermodal trains a day that serve all points east, from Texas to the southeast to the upper Midwest.

I am not familiar with the details of where this particular project stands. I understand that we are working toward a mutually agreeable solution, and look forward to following up with your office on the particulars.

Mr. STANTON. Thank you very much. I look forward to working closely with you, and I yield back.

Ms. NEWMAN. Thank you, and I now recognize Mr. Balderson.

Mr. BALDERSON. Thank you, Madam Chair, and thank you for being here. My question is for Mr. Williams.

Mr. Williams, thank you for participating in the hearing today and providing information on the current state of the rail industry.

Mr. Williams, my first question, last summer this committee marked up and passed H.R. 2, the INVEST in American Act. This

bill included a provision that would implement a 10-minute time limit for trains blocking public grade crossings. This provision would have applied penalties of up to $25,000 even for the first-time violations for railcars and trains that block a crossing for just 1 second over the 10-minute limit.

The bill also directs the Department of Transportation to submit a report containing a national strategy to address blocked crossings. While this report is a good start, the bill would give the Department up to 18 months to submit this strategy, while the penalties for blocked crossings would go into effect immediately.

No one likes having their daily commute delayed or impacted because of blocked rail crossings. And I don't think solving this issue should be a partisan issue. It is important that this committee works with the entire rail industry to better understand how we can prevent blocked crossings, moving forward. But I am concerned that a one-size-fits-all approach would force crews to make split-second decisions in order to meet the 10-minute requirement.

Mr. Williams, can you share what BNSF is doing to address this issue?

And how can the Federal Government work with you to prevent blocked crossings?

Mr. WILLIAMS. Thank you for your question, Congressman Balderson. And I can assure you even rail employees don't like waiting at blocked crossings for trains.

And I would say we have concern with a one-size-fits-all approach. And certainly the community value within BNSF is strong. Our employees live in these communities that we serve. But, you know, issues around blocked crossings handled locally, we think, is the best way. We have our local operating teams that deal with local officials, and there are unique circumstances in local communities. We think those problems should be solved there, where they are, locally.

Mr. BALDERSON. Thank you. Is there anyone else that has thoughts on this issue? You may address it, if you would like.

[Pause.]

Mr. BALDERSON. OK. Seeing none, Madam Chair, I yield back my remaining time. Thank you very much.

Ms. NEWMAN. Thank you. And we are going to go back to Mrs. Napolitano to see if she is available.

Mrs. NAPOLITANO. Can you hear me?

Ms. NEWMAN. We can.

Mrs. NAPOLITANO. Oh——

Ms. NEWMAN. Please, go ahead.

Mrs. NAPOLITANO. All right, thank you very much. I wanted to talk about Alameda Corridor-East, which is the transit for railroads out of the L.A. Port and Long Beach in southern California. And they can also be a burden to my communities, because it goes through all my communities, many streets, roads to school, yards of residences, within the yards of many residents and businesses, and they create——

[Pause.]

Ms. NEWMAN. Did we lose her?

[Pause.]

Mrs. NAPOLITANO. Hello?

Ms. NEWMAN. We can hear you now.

Mrs. NAPOLITANO. [Inaudible] . . . the impacts, mitigating the impacts by supporting grade separation project, rail safety projects, including the employee reduction—environmental improvement projects. To any of you.

Mr. WILLIAMS. Congresswoman, this is Tom Williams from BNSF, and I apologize, but I don't know if it was just me or if all of us were not able to hear a good deal of the first part of your question. But I did hear related to the trains that touch the port complex down in Los Angeles.

Mrs. NAPOLITANO. Well, yes, that is—both ports create the traffic that goes through my whole district, the Alameda Corridor-East, and it does cause a lot of problems because it traverses through many of the cities that I represent. And there is congestion, there is idling from the cars, which creates pollution, and there are safety issues with first responders not being able to get through.

And now, with the longer trains that are being proposed to go into Long Beach from either Texas or some other areas, it is important that we recognize that there has to be a solution for the communities, not just for the railroad and not just for the industries.

Mr. WILLIAMS. I recognize that. And thank you for this question, and I agree that it is a very important issue.

I know the Alameda Corridor did address several grade separations, and that was a good example of a public-private partnership that helped support more efficient rail growth, and helped take a lot of trucks off of the highway.

We are very motivated to continuing to grow our on-dock rail presence, which will further, hopefully, reduce trucks that are on the highways in southern California. And certainly, grade separation efforts are important to keep the trains moving and have less disruption to the commuter traffic flows, as well.

Mrs. NAPOLITANO. But should some of the funding be directed to ameliorating these problems?

Mr. WILLIAMS. Funding, in terms of grade separation?

Mrs. NAPOLITANO. Not only grade separations. The railroad safety and environmental projects.

Mr. WILLIAMS. Yes, I mean, I do think grade separation efforts are a good opportunity for public-private partnerships, and with the local communities.

Mrs. NAPOLITANO. What is the normal length of a train anymore? Because I remember the 1½-mile-long train that came through my area a long time ago, about 6 years ago, and it came out of Texas to our ports in Long Beach and L.A. And a 1½-mile-long train was enough to put a lot of concern in my residents and in my cities. What is the normal length of those trains now?

Mr. WILLIAMS. Well, the normal length is certainly, on our system, less than 1½ miles long. And I do want to assure you that we would never operate a train that wasn't safe. But longer train initiatives are an important part of our efficiency initiatives to stay competitive in this competitive freight transportation marketplace. And as we run longer trains, we also run fewer trains for the same amount of volume.

Mrs. NAPOLITANO. Yes, but what length of train is the maximum that you run?

Mr. WILLIAMS. Well, today trains can run well in excess of 1½ miles long, on occasion. But the average length, in terms of our system, is less than 1½ miles long.

Mrs. NAPOLITANO. OK, and then some of the farmers in my area are saying that they are being denied access to exporting goods because of—whether it is capacity or whether it is—I don't know what the reason is. Would you be able to address that?

Mr. WILLIAMS. Yes. So I addressed this and touched on this with an earlier question, but we certainly work with the shipping lines to move whatever they tender to us. We are not container owners on the railroad. We work with carriers both on the international and domestic side. And, you know, we are eager to move the volume that is tendered to us.

Mrs. NAPOLITANO. That is fine, thank you.

Mr. Chair, I yield back.

Ms. NEWMAN. Thank you.

Are there any further questions from members of the subcommittee?

[No response.]

Ms. NEWMAN. Seeing none, I would like to thank each of the witnesses for your testimony today. Your comments have been very informative and helpful.

I ask unanimous consent that the record of today's hearing remain open until such time as our witnesses have provided answers to any questions that may be submitted to them in writing.

I also ask unanimous consent that the record remain open for 15 days for any additional comments and information submitted by Members or witnesses to be included in the record of today's hearing.

Without objection, so ordered.

The subcommittee stands adjourned. Thank you.

[Whereupon, at 1:38 p.m., the subcommittee was adjourned.]

SUBMISSIONS FOR THE RECORD

Prepared Statement of Hon. Sam Graves, a Representative in Congress from the State of Missouri, and Ranking Member, Committee on Transportation and Infrastructure

Thank you, Chairman Payne, and thank you to our witnesses for being here today.

I would also like to congratulate Chairman Payne on becoming the newest leader of this important subcommittee. I look forward to working together.

The railroad industry makes significant contributions to the U.S. economy, and its high capacity to move freight with low emissions provides benefits to the environment.

Freight rail is an essential part of the U.S. economy and is a major employer. Railroads themselves employ about 135,000 people.

The rail industry is also continually working to improve rail safety and better utilize new technology and innovation, leading to increased fuel efficiencies and reductions in emissions.

I look forward to hearing more from our witnesses about these efforts and the contributions of the rail industry.

Thank you, Chairman Payne. I yield back.

Statement of the Conference of Minority Transportation Officials, Submitted for the Record by Hon. Donald M. Payne, Jr.

Chairman Payne, and Members of the Subcommittee on Railroads, Pipelines, and Hazardous Materials, the Conference of Minority Transportation Officials (COMTO) appreciates the opportunity to submit a statement for the record for this most important hearing to fund a robust railroad infrastructure. We hope the discussion also addresses issues important to COMTO's constituency including diversity, inclusion, and economic and social equality. We thank the Chairman Payne for his leadership and look forward to a robust and productive agenda under his tenure as Chair.

COMTO was established in 1971—we are marking the 50th anniversary of our founding this very year—and was established with the to ensure opportunities and maximum participation in the transportation industry for minority individuals, veterans, people with disabilities and certified M/W/DBE businesses through leadership training, professional development, scholarship and internship funding, political advocacy, partnership building and networking opportunities.

We believe that diversity moves the nation. We believe that the leadership of a massive industry that has the responsibility of transporting all people and goods all the time should reflect the complex mosaic of those they serve. We believe that commitment to inclusion across race, gender, age, religion, identity, and experience moves us forward every day.

To quote President Joe Biden's Infrastructure Plan, we support the Administration's goal to "... provide every American city with 100,000 or more residents with high-quality, zero-emissions public transportation options through flexible federal investments with strong labor protections that create good, union jobs and meet the needs of these cities—ranging from light rail networks to improving existing transit and bus lines to installing infrastructure for pedestrians and bicyclists." We understand the Mr. Biden's vision involves all modes, including freight, passenger, and high-speed rail.

COMTO is looking forward enthusiastically to the opportunity to work closely and collaboratively with the T&I Committee and the Biden Administration to advance a common transportation infrastructure agenda that reflects the current culture of democracy, environment, and inclusion and equality. COMTO is looking forward to

the details of an infrastructure program to "Create millions of good, union jobs rebuilding America's crumbling infrastructure . . . to lay a new foundation for sustainable growth, compete in the global economy, withstand the impacts of climate change, and improve public health, including access to clean air and clean water." COMTO National and its thousands of members throughout 34 chapters across the country, offers its support and service to assist the Committee and the Administration in seeing this vision to fruition.

We ask that the Committee, by virtue of entering this statement into the hearing record, will give weight to COMTO's perspective and legislative priorities during any consideration of reauthorization of the Surface Transportation Act or any upcoming infrastructure legislation.

COMTO LEGISLATIVE PROGRAM/INITIATIVES/PRIORITIES

- *Federal Railroad Administration (FRA) DBE Program*—COMTO respectfully requests implementation, via legislative or executive order, that FRA immediately implement a DBE program using the FHWA/FTA/FAA model. We advocate for consistency within the USDOT and the establishment of DBE participation goals on projects funded through the FRA and on monies funneled by FRA to state rail agencies—including High Speed Rail projects. When the DBE program was established as part of the Surface Transportation Act of 1982, the FRA funds were not made subject to DBE goals. The legislative history of this decision may be murky, but the consequences of this unfair policy are crystal clear. For the past 40 years, the FRA has dispensed taxpayer funds—including government-guaranteed loans—to public and private rail projects, with recipients having little accountability to minority communities and no consideration given to small and minority businesses. Again, this would appear to be a simple fix to a serious problem. An FRA DBE program would provide opportunities for new DBE start-ups, would mean millions of dollars for minority businesses, and would provide thousands of jobs for minority communities.
- *U.S. Department of Transportation (USDOT) Disadvantaged Business Enterprise (DBE) Program Changes/Efficiencies/Goals Increase*—Revitalization of the USDOT Office of Small and Disadvantaged Business Utilization (OSDBU) and the USDOT Departmental Office of Civil Rights
  - *Improvements and Efficiencies*—COMTO would like to see closer oversight by DBE officers to avoid fraudulent front companies, through more vigorous training programs for certification and compliance officers. We would like to include a stronger, clearer definition of "good faith efforts" and fewer opportunities to seek waivers from DBE goals by majority-owned firms. We recommend improved electronic application submission and allow information sharing between agencies to expand reciprocity between those agencies. The Surface Transportation Act of 1982 set DBE participation goals on federally-funded projects at 10%. That has not changed in almost 40 years. Although local transit jurisdictions do have flexibility to adjust that goal depending on the demographics of the region, COMTO would recommend a change in the regulation to increase DBE/MBE/WBE participation goals to 40%. We believe it is also important to apply not just project goals but also to implement specific goals in under-utilized trades and businesses.
  - *Small Disadvantaged Business Size Standards*—COMTO supports action that would conform the Department of Transportation's DBE Size Standard with the Small Business Administration Standards. Since the Federal Aviation Administration (FAA) Reauthorization of 2018 already included language that applied SBA size standards to FAA funded projects, a simple and straightforward amendment to the CFR would correct the anomaly in current law that discriminates against Federal Transit Administration (FTA) and Federal Highway Administration (FHWA) DBEs. This is a simple fix to a big problem: in the interest of fairness and consistency and the survival of small minority owned businesses, the USDOT should use the FAA's model and use SBA's size standards when making determinations with regard to small business status. We believe the three-year average revenue ceiling for USDOT small business—now at $26.29 million—should sync with the ceiling of SBA—$39.5 million, with increases and inflationary adjustments accordingly.
  - *Increase DBE Personal Net Worth (PNW) Ceiling*—Like the DBE/SBE ceiling, current PNW levels discourage DBE growth, quashes successful graduation rates and limits bonding and insurance opportunities. DBE firms are caught in a Catch-22: at the PNW ceiling of $1.32 million currently in effect and unchanged for several years, owners cannot obtain the bonding nec-

essary to respond competitively to bids on large transportation construction projects. And if they do obtain the net worth to secure the requisite bonding, those firms' owners immediately become ineligible for the DBE program. It is just common sense to set a PNW grounded in reality and adjusted for inflation, and in recognition of the challenges small and minority businesses face in the bonding and sureties' market. In addition. current policy disincentivizes business owners from saving for retirement; therefore, we would like to see exclusion of restricted 401(k) retirement savings from the personal net worth calculation.

- *DBE/SBE Mentor Protégé Program*—COMTO supports an incentivized USDOT program that would provide quantifiable benefits—rather than simply goodwill—majority-owned firms to mentor small minority companies, e.g., tax credits and/or "points/credits" on bid evaluations if a mentor-protégé program is in place.
- *Local Hiring Initiatives*—COMTO strongly supports language that would immediately restore the Local Hire Pilot Program established by the USDOT under President Obama; and canceled early in the Trump administration. We would like to see expansion of the program, based on data from the Pilot Program that empirically shows that projects using a local hire preference did not lower competition or increase bid prices. To the contrary, they strengthened local communities by helping to create good local jobs, increasing opportunities and greater equity for people of color, women, veterans, and others facing barriers to employment. COMTO is pleased to know that rebuilding America through racial and economic equity and incentivizing job creation through local hiring and job creation, particularly through infrastructure, is a priority for the Biden Administration.
- *Safety Protocols for Front Line Transportation Workers and Public Transit Users*—One of the Nation's biggest and most immediate priorities is our response to COVID–19 particularly on how we measure racial equity. Many transit-dependent residents and commuters in the service sector and other lower salaried jobs, who are disproportionately minority and women, are forced to continue to use public transit throughout the pandemic. Similarly, front-line transit and transportation workers come from similar demographics and are disparately impacted by dangers of contact with COVID–19. We believe safeguards and protocols should be in place to protect these workers who ensure continued operation of the transportation systems and represent the communities and ridership served by public transit.
- *Workplace Drug Policy*—COMTO has taken a neutral position on the federal legalization of recreational marijuana consumption. However, we would encourage a USDOT study on current drug testing policies to reflect changing state and local marijuana laws and public attitudes toward medical and recreational cannabis use. Current employer, legally-supported penalties disparately impact minority and younger, entry-level members of the workforce.

Thank you for your attention and consideration in these important matters, and COMTO appreciates the opportunity to provide comment.

Statement of John C. Hellmann, Chief Executive Officer, Genesee & Wyoming Inc., Submitted for the Record by Hon. Donald M. Payne, Jr.

I am John C. Hellmann, Chief Executive Officer of Genesee & Wyoming Inc. (G&W). My company owns or leases 116 freight railroads organized in locally managed operating regions with 7,300 employees serving 3,000 customers.

G&W is the largest owner and operator of Class II and III ("regional" and "short line") freight railroads in North America. Our four North American regions serve 42 U.S. states and four Canadian provinces and include 113 short line and regional freight railroads with more than 13,000 track-miles.

The G&W UK/Europe Region includes the largest rail maritime intermodal operator and second-largest freight rail provider in the United Kingdom, as well as regional rail services in continental Europe. Worldwide, G&W subsidiaries and joint ventures also provide rail service at more than 30 major ports, rail-ferry service between the U.S. Southeast and Mexico, multi-modal transloading services, and industrial railcar switching and repair.

Genesee & Wyoming started in 1899 as a fourteen-mile short line railroad in upstate New York serving only one customer, a salt mine, in Retsof, New York. We still serve the descendant of that first customer today. We have remained consistent

over the 122 years since our founding in providing local rail freight services across the U.S. and Canada in the safest and most customer-focused means possible.

Since the first common carrier railroad began operations in 1830, the rail industry has remained critical to both the national economy and the transportation needs of its communities through continuous evolution and innovation. This evolution has embraced technology, ranging from the adoption of internal combustion engines for the replacement of steam locomotives to the early use of mainframe computers to improve freight car management. On a smaller scale, G&W and Wabtec together played a role in this long history of innovation as we collaborated to incubate and develop software at the inception of the short line industry that has become the industry standard.

As the rail industry approaches its 200th anniversary, technological innovation is how railroads will not only remain essential to the competitiveness of our national economy but also will lead the way to a decarbonized future for the United States. We believe that G&W working with Wabtec and Carnegie Mellon University on the Freight 2030 Initiative, with support by the federal government, will accelerate the development of zero-emissions locomotives and transform the next generation of rail transportation. With success, G&W railroads will be able to offer our customers both carbon-free and cost-effective transportation, enabling us to expand rail freight utilization and thereby create a virtuous circle that reduces our nation's carbon footprint. It is my pleasure to provide this statement of support in conjunction with the testimony to be provided by Mr. Rafael Santana, President and CEO of Wabtec Corporation.

Railroads are already among the cleanest, safest and most cost-effective modes of surface transportation, a reality that can be partially attributed to the industry's unique physical attributes. The physics of a steel flanged wheel moving over a steel rail simply provides the most efficient and environmentally friendly means of overland freight transportation. And when these characteristics are coupled with the extraordinary productivity of our nation's privately-owned freight railroads, the United States enjoys a vast competitive advantage. G&W has privatized railroads on four continents and has witnessed firsthand the economic benefits of operating the safest and most productive railroads in the world. G&W believes the rail industry will have an even stronger and more important role to play in our nation's decarbonized future. And with the prospect of electrifying the nation's rail network possessing limited economic merit, innovations in battery and hydrogen powered locomotive technologies will be essential to our industry's future.

G&W is a committed partner with Wabtec and Carnegie Mellon University in our Freight 2030 Initiative and believes the federal government could be a vital partner in that vision. Our success can revolutionize the rail industry, intensify customer demand for rail transportation and lead our nation to a decarbonized future.

Statement of William J. Flynn, Chief Executive Officer, National Railroad Passenger Corporation (Amtrak), Submitted for the Record by Hon. Peter A. DeFazio

INTRODUCTION

Chairman Payne, Ranking Member Crawford, and all the Members of this Subcommittee, it is my pleasure to provide this statement for the record to reinforce the testimony of today's witnesses regarding the important role rail has to play in the achievement of our nation's economic and environmental goals. As we approach our 50th anniversary, Amtrak has proven to be not only a vital means of connecting people, communities, and regions throughout the country, but also a driver of economic growth for cities and families, and a significantly cleaner alternative to other modes of travel. Simply put, every dollar invested in intercity passenger rail is a dollar well spent towards the nation's economic goals and vision for securing a healthy environment.

Amtrak's recent success over the past two decades proves that intercity passenger rail service is working in America. The pre-pandemic numbers speak for themselves—over the past 20 years (exclusive of the recent pandemic period), ridership and passenger revenue grew by over 60 and 130%, respectively, and with the support of the contributions from our state partners for State Supported services, we reduced our net operating loss to just $29.6 million in 2019, allowing us to spend far more of our Federal dollars on addressing our huge capital needs instead of funding operations. Yet, we can and must do more.

With better policy and reliable, long-term funding, intercity passenger rail could become a much larger part of our transportation system, a catalyst for economic growth and community development, and a key aspect of our climate response.

For proof of how much more rail can do for the nation, we only need look at the Northeast Corridor (NEC), the continent's busiest railroad, which provides over 260 million passenger trips per year, of which 17.1 million annual trips are made by Amtrak passengers. The main line of the NEC spans 457 miles of rail lines and includes four of the largest metropolitan areas in the country. The combined economy of the Northeast Corridor is the fifth largest economy in the world with a GDP of $3 trillion. Amtrak owns 363 miles of the track on the NEC.

After the record-breaking success of FY 19, Amtrak, like the rest of the country, was affected by the current health crisis and the attendant drops in both ridership and revenue associated with the pandemic. However, with the continued support of Congress, efforts to contain the virus, and the dedication of our staff who continue to serve on the frontlines each day, our company will weather this storm and emerge stronger and well-positioned to continue serving the American public.

As encouraged as we are by the success of the NEC, we can do much more and hopefully replicate the success of the NEC in high-demand areas throughout the country. For the past three years, Amtrak has been working to identify the corridors with the highest demand for multi-frequency, high-quality passenger rail service. We have been analyzing data on demographics, population density and growth, and travel demand on other modes; reviewing state and regional rail plans; and talking with federal and state elected officials, our state partners, and departments of transportation in states with which we do not currently have state partnerships.

Through this analysis, we have identified more than two dozen promising corridors we either do not serve at all or do not serve well today. In addition, we have also worked with our state partners to identify existing corridors on which there is significant unmet demand for additional, improved or expanded state-supported service. We firmly believe that the nation's 50 largest metropolitan regions, at a minimum, should be served by high-quality intercity passenger rail. While we have great partnerships in places today, there are so many underserved communities and corridors in the nation, like Nashville to Atlanta, the Colorado Front Range, and the Texas Triangle, that deserve Amtrak service. Our goal is to serve many more people and more communities than we do today by developing a national network of corridors with service that is trip time-competitive with other modes and will link major and growing population centers in all regions of the United States.

While our corridor development plan will require a significant increase in federal funding for intercity passenger rail service, it will also produce a much bigger "bang for the buck" by providing a higher return for each dollar of federal investment. Offering services that are trip time competitive with other modes and provide multiple frequencies rather than just one round trip per day will generate higher revenues from passengers and produce operational efficiencies that lower costs. Our projections indicate that an expanded corridor network would have a much lower federal operating funding requirement per passenger than our existing services.

Amtrak's 15 long distance routes also comprise an important part of our intercity passenger rail system and play a vital role in connecting communities across the nation, including many towns and cities in rural America, to the rest of the nation. Many of the communities served by our long distance routes have seen alternative intercity transportation modes such as airlines and intercity bus service leave the area. For these communities, Amtrak remains a vital transportation option, and is often the only link between smaller towns and cities and more distant urban centers. Amtrak serves about 40% of America's rural population and serves 8 out of the 10 states classified by the U.S. Department of Transportation in 2010 as enjoying the least comprehensive access to rural transportation. On average, over 90% of long distance riders are traveling to, from, or between stations other than the endpoints, highlighting the importance of long distance service for intercity and regional connectivity in many small towns and rural areas.

We are proud to serve the communities that benefit from our long distance service, and we can, and should continuously strive to serve them better. Our long distance lines serve certain major metro areas such as Cleveland primarily in the dead of night. Many long distance trains are also chronically late, often as a result of host railroads' failure to give Amtrak trains preference in dispatching decisions. In CY 19, only 42% of long distance customers arrived on time. Many long distance routes are also served by aging rolling stock that is due for replacement. Sustained congressional funding for capital investment will help to improve service and reliability along our long distance routes. Additionally, Congress can improve the on-time performance of long distance trains—and trains throughout the entire Amtrak system—by supporting strong preference enforcement and granting Amtrak a private

right of action in federal court against host railroads that fail to meet their obligations.

THE ECONOMIC BENEFITS OF AMTRAK

Amtrak's network of intercity passenger rail service supports interstate commerce and state and local economies, and it connects small town America to the national economy. In key markets such as the Northeast Corridor, Amtrak bolsters the productivity of the U.S. business sector, supports the long-term economic growth of the region, and enhances the global competitiveness of the United States.

Amtrak is a large employer and supports thousands of direct jobs with millions of payroll income that yields additional jobs, spending, and state tax revenues. Amtrak employs approximately 16,000 people in 42 different states and the District of Columbia, generating an annual payroll of approximately $1.6 billion annually. Also, nearly six jobs are created across the U.S. for every job in the rail transportation industry.

In FY 20, Amtrak spent $1.97 billion—over 98% of its total purchases via Purchase Orders—on domestic purchases of goods and services from a variety of industries, supporting additional jobs in manufacturing, service, transportation, and other industries. Amtrak proudly supports "Buy America" standards which generally require 51% of components come from "local" or U.S. suppliers. For example, when Amtrak purchased 70 new locomotives to replace parts of its aging fleet, the equipment was assembled in Sacramento, California, with major components built in Ohio and Georgia. The supplier and production chain included more than 60 suppliers, manufacturers, and distributors from more than 50 cities and 20 states.

Individual economic opportunity, business competitiveness, and community quality of life are all strengthened by the availability of intercity passenger rail service. These benefits support small urban, large metropolitan, and rural communities alike. In recent years, rail stations themselves have become the focus of community redevelopment activity. A potential byproduct of rail investment is the impact on land development around the station. By increasing the number of people traveling through the corridor, and by potentially drawing from a greater distance due to service improvements, the market potential of locations around the train stations is expanded.

We look forward to amplifying these economic benefits through our corridor expansion plan, which we anticipate could add 2,800 additional Amtrak jobs, extend corridor service to 15 additional states, and serve up to 160 additional cities by 2035.

Amtrak trains serve more than 500 locations across the continental United States—more separate locations than are served by all the scheduled airlines combined. While Amtrak's largest stations do make up a great deal of our traffic volume, our ridership follows the "long tail" model, and this broad distribution reflects the number of rural communities that rely on Amtrak. The same relationship also shows how much Amtrak depends on the hundreds of small stations to sustain our business. This relationship between Amtrak and rural communities has been in place since our founding, and we are committed to building on this. Trains have the unique ability to serve numerous intermediate markets that, on their own, would never attract airline service but can be connected safely and efficiently by a longer regional route. These trains unlock the value of these smaller segments—tapping into small towns while bringing the larger communities' resources into convenient reach of more people. Train service is also more resilient in the face of harsh weather, which is especially important for remote communities.

Rural populations, senior citizens, people with disabilities, and people without the means or desire to own their own car have limited mobility choices. Trains offer a unique and important form of transportation for these people, and ensuring access for communities that rely on Amtrak service, while at the same time working to expand the reach of our network, remains a key goal for our company.

ENVIRONMENTAL BENEFITS OF AMTRAK

In addition to contributing to the national economy, intercity passenger rail is one of the most sustainable transportation modes available. A 2018 United Nations report identified rail transportation as one of the primary ways to reduce greenhouse gas (GHG) emissions now and continuously into the future, and it is easy to see why. According to the latest U.S. Department of Energy data, intercity rail is 47% more energy efficient than driving and 33% more energy efficient than air travel. Traveling on Amtrak's electrified system in the NEC is cleaner still, emitting up to 83% less GHG than driving and up to 73% less than flying.

Amtrak tracks these benefits closely. For example, in FY 19, our 32 million customers avoided 660 million kg of carbon dioxide equivalent (CO2e) by riding Amtrak instead of flying, or 1.4 billion kg of CO2e by riding with Amtrak instead of driving (the equivalent, according to the Environmental Protection Agency, of taking more than 300,000 cars off the road for that year). In addition to being a more energy efficient mode of travel than air travel or automobiles, shifting people to trains from other modes reduces traffic congestion and delays as well as the resulting pollution.

Amtrak is proud to be a leader in harnessing the power of rail to transport people in a manner that will help to combat climate change and support global efforts to reduce GHG emissions. Our company sets annual targets to reduce GHG emissions, electricity use, and fuel consumption. From a 2010 baseline, Amtrak reduced emissions by 20% as of FY 19—with a target to achieve a 40% total reduction by 2030. Initiatives such as reducing locomotive idling, procuring energy efficient equipment, making energy efficient upgrades in Amtrak-owned buildings, fuel conservation, and increasing the amount of renewable energy in our purchased electricity contracts will help Amtrak achieve energy and emissions reduction targets.

Our new Acela fleet, which we expect to enter revenue service later this year, will be 40% more energy efficient than current models due to advanced technologies and improved aerodynamics. On board recycling will also be available in each car. Other next-generation equipment offers similar improvements: Amtrak's new ALC–42 locomotives, intended for use on the unelectrified National Network, reduce nitrogen oxide emissions by more than 89%, reduce particulate matter emissions by 95%, and will provide savings in fuel consumption.

WHAT CONGRESS CAN DO

We look forward to continuing to work with you to discuss the many steps that can be taken to support a robust passenger rail network in the United States. In particular, there has been recent discussion by this subcommittee on the potential infusion of additional federal funding for rail as part of an infrastructure bill, as well as new federal policy and programs that could be considered as part of a multiyear surface transportation reauthorization. Our reauthorization proposal, which will be discussed in greater detail in our annual request to Congress, calls for:

- *Intercity Passenger Rail Trust Fund*: Amtrak and intercity passenger rail are the only major mode of surface transportation without a federal trust fund to provide reliable, multiyear program funding. Reliance solely on the annual appropriations process for funding inhibits our ability to pursue large, multi-year capital projects or procurements (e.g. fleet replacement) and service expansion across the nation. If Amtrak is to significantly improve and expand our network, Congress must create a predictable and long-term source of federal funding, like a trust fund, for both the Northeast Corridor and the National Network.
- *Access to Railroads for New Service and Adding Trains*: Most rail routes used by Amtrak trains are owned and controlled by freight railroads. Prompt access to the nation's rail network is essential for Amtrak to fulfill its mission and meet the needs of the traveling public. Amtrak always attempts to work cooperatively with our host railroads to add new routes, modify existing routes, and add additional trains. More often than not, these efforts fail to provide reasonable access for Amtrak trains, leaving your constituents without the services they desire and deserve. We are seeking Congressional support and updates to statute to ensure the Amtrak network can grow and serve more of your constituents.
- *Preference Enforcement*: Our host railroads are required by law to provide Amtrak trains dispatching preference over their own freight trains. Unfortunately, this requirement is not consistently honored and "freight train interference" is the largest source of delay to Amtrak trains on host railroads, inconveniencing passengers in violation of the law. Amtrak seeks the right to bring an action in U.S. District Court when our preference right is violated so we can ensure our customers are not unnecessarily delayed by freight trains and arrive on-time.
- *New Routes*: Frequent and reliable "corridor" routes, typically less than 500 miles, represent the fastest-growing segment of Amtrak service. Population growth, changing demographics and travel preferences, and environmental concerns all point to new opportunities for intercity passenger rail, and we have developed a visionary plan to expand service across the nation. We ask Congress to authorize and fund Amtrak's expansion in such corridors by allowing us to cover most of the initial capital and operating costs of new or expanded

routes prior to requiring state partner cost-sharing under Sec. 209 of the Passenger Rail Investment and Improvement Act.

- *Carbon-Free Operations and Renewable Energy Use*: While Amtrak is already one of the greenest travel options available, we can and should become even more sustainable. Congress should direct Amtrak to develop clear plans for achieving its goal of net-zero carbon emissions—both on the Northeast Corridor and across our entire national train service. Congress should also leverage Amtrak's electricity needs and infrastructure to promote carbon-free and renewable energy more generally, both by allowing us to transmit electric power on behalf of / for sale to other entities and by directing us to meet more of our own electricity needs from carbon-free and renewable sources (with the ultimate goal of requiring 100% carbon-free or renewable energy in all new or renewed contracts by 2030).
- *All Electric NEC*: In general, electric trains are quieter, cleaner, and more efficient than their diesel-powered counterparts; they produce significantly less pollution, with corresponding benefits to air quality, public health, and the climate. Despite the benefits of electric trains, the NEC spine remains one of the only fully electrified corridors in the United States—and even there, not all trains are electric. Other railroads make extensive use of the NEC, as well; on a typical day, most of the roughly 2,200 passenger trains that travel on the Corridor are operated by commuter railroads. Many of these trains are diesel-powered. Congress should require that all regularly-scheduled intercity and commuter passenger rail service on the NEC spine use electric or other technologically advanced propulsion equipment beginning by the start of CY 2035 with reasonable exceptions for freight railroads, for connecting commuter routes that operate only along short segments of the NEC, and in the case of emergencies and unexpected disruptions.

We are confident that these proposals will help to maximize the impact of intercity passenger rail, and the numerous benefits associated with intercity passenger rail service, throughout the country.

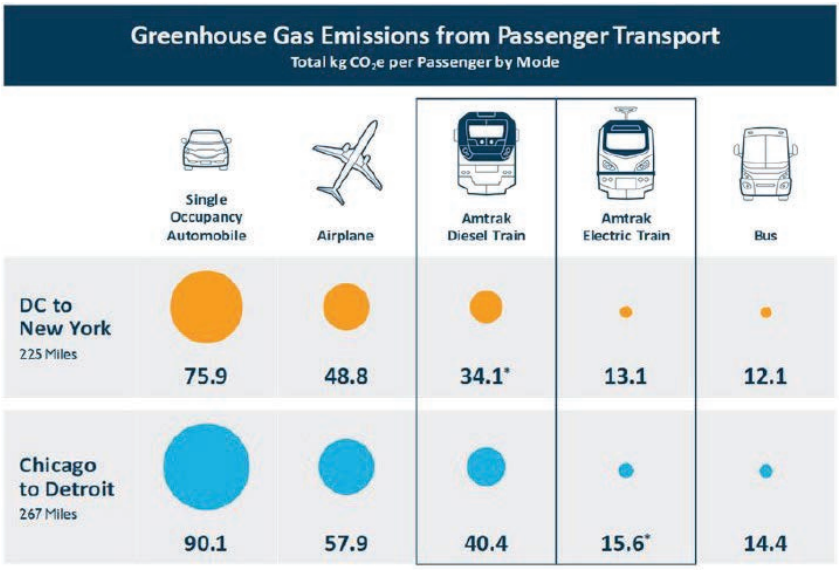
CONCLUSION

Intercity passenger rail service remains a vital tool for fostering economic growth and connecting communities in a manner that is environmentally sustainable. With Congress's support, we can do even more to expand our impact and amplify the benefits of passenger rail for the environment and the economy.

I appreciate the opportunity to provide this statement for the subcommittee's consideration, and I look forward to Amtrak continuing to play an important role in our nation's economic and environmental progress.

APPENDIX

A. Greenhouse Gas Emissions from Passenger Transport

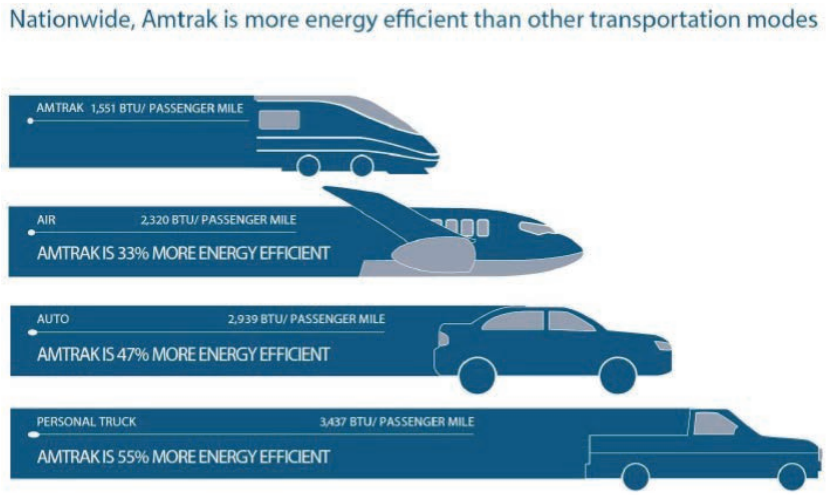


Calculations use EPA's Emission Factors for Greenhouse Gas Inventories [March 2020] and the IPCC Fifth Assessment Report's global warming potential values for CO_2, CH_4, and N_2O.

Note: These figures are based on Amtrak's FY19 national network operations and are not route specific. By 2026, Amtrak will be operating Charger locomotives that are 10% more fuel efficient - further reducing Amtrak's GHG emissions.

**Not an option for this route; data only for comparison.*

B. Intercity Passenger Rail Represents an Energy Efficient and Low-Emission Travel Alternative



Source: Transportation Energy Data Book, Edition 37, 2019

Report entitled "Freight Railroads and Climate Change," by the Association of American Railroads, March 2021, Submitted for the Record by Hon. Peter A. DeFazio

FREIGHT RAILROADS AND CLIMATE CHANGE

Our planet and nation face challenges that demand communities, businesses, and policymakers come together and create solutions that will fuel economic recovery and combat climate change. With nearly 200 years of experience moving America through times of both prosperity and trouble, freight railroads have always looked to the future, adapted, and risen to the challenge.

March 2021

Association of American Railroads

SUMMARY

As policymakers attempt to balance economic recovery from the coronavirus pandemic with meaningful progress toward combating climate change, the nation's railroads want to be—and must be—a part of the solution.

The Association of American Railroads (AAR) and the rail industry recognize that the climate is changing. If action is not taken, climate change will have significant repercussions for the planet, our economies, our society, and even day-to-day railroad operations.

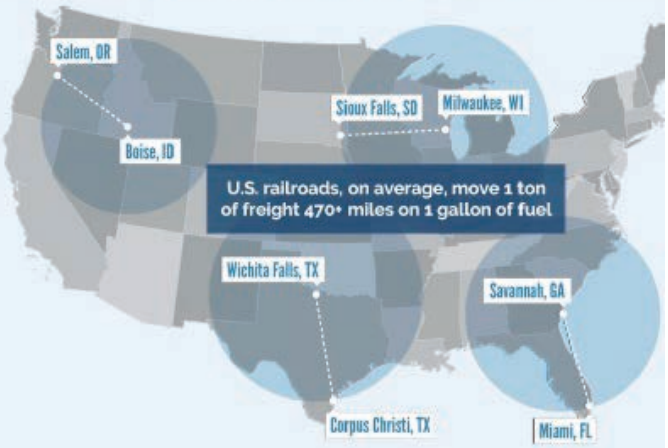
The Congressional Budget Office recently projected that the effects of climate change will reduce real GDP growth rate by 0.03% annually from 2020–2050, and, as a result, this diminished annual GDP growth rate will reduce real U.S. GDP by 1.0% in 2050. AAR urges U.S. policymakers to adopt effective, coordinated, and market-based strategies to significantly reduce greenhouse gas (GHG) emissions and combat climate change.

Today, railroads account for roughly 40% of U.S. long-distance freight volume (measured by ton-miles)—more than any other mode of transportation.[1] Through smart, targeted investments, the freight rail industry has worked to increase fuel efficiency, drive down GHG emissions, and make rail operations even more sustainable. However, the industry recognizes there is much more work to be done and the right policies are essential for charting a path forward.

To be effective, policy strategies aimed at fighting climate change must encourage innovative solutions, leverage market-based competition, and allow for varied approaches that drive down emissions. Most importantly, these strategies must be grounded in data and established through a cooperative, multi-faceted approach involving all stakeholders.

[1] Federal Highway Administration, Freight Analysis Framework, Version 4.5.1.

Railroads Are the Most Fuel Efficient Way to Move Freight Over Land



One train can carry the freight of hundreds of trucks, which reduces highway congestion**

Freight railroads are 3-4 times more fuel efficient than trucks, on average

Moving freight by train instead of truck reduces greenhouse gas emissions by up to 75%

Railroads account for 40% of U.S. freight but only 2.1% of U.S. transportation-related greenhouse gas emissions*

*According to the U.S. Environmental Protection Agency (EPA). **According to the Texas Transportation Institute's 2019 Urban Mobility Report, highway congestion cost Americans $165 billion in wasted time (8.8 billion hours) and wasted fuel (3.3 billion gallons) in 2017.

LEADING BY EXAMPLE: HOW RAILROADS HELP REDUCE EMISSIONS

Railroads are developing and implementing new technologies, refining operating practices, and working with their suppliers, customers, and supply chain partners to create a more sustainable future. For example, railroads have greatly improved their fuel efficiency. On a gross ton-miles per gallon basis (gross tons include the weight of rail cars as well as the weight of the freight in them), rail fuel efficiency in 2019 was up 82% since 1980 and up 17% since 2000.

U.S. freight railroads move more freight with much less fuel than before thanks to technological innovations, improved operating practices and a lot of hard work. In 2019 alone, U.S. freight railroads consumed some 656 million fewer gallons of fuel and emitted 7.3 million fewer tons of CO2 than they would have if their fuel efficiency had remained level compared to 2000. From 2000 through 2019, U.S. freight railroads consumed 9.6 billion fewer gallons of diesel fuel and emitted 108 million fewer tons of CO2 thanks to industry-wide fuel efficiency efforts. In 2019, railroad CO2 emissions from diesel fuel consumption were 18% lower than their peak in 2006.

These efforts continue. Many of AAR's members voluntarily report GHG emissions from their operations to the Climate Disclosure Project (CDP), an international non-profit organization that helps companies disclose their environmental impact. Several Class I railroads have also committed to voluntary reductions in GHG emissions intensity.

For example, all seven Class I railroads are participating in the Science Based Targets Initiative (SBTi), an international collaboration focused on limiting global warming to less than two degrees Celsius. Norfolk Southern has created the "Trees to Trains" program—a carbon-mitigation strategy that reforests thousands of acres in environmentally critical areas to offset the company's carbon footprint. BNSF is testing the first battery electric locomotive in the United States and Canadian Pacific is participating in a pilot project to test hydrogen fuel cell locomotives. And AAR and its members have formed a dedicated working group to understand new lower-or-zero-carbon fuel technologies and other climate-related issues.

Railroads Consistently Improve Fuel Efficiency

Fuel-efficient Locomotives: Acquiring and retrofitting thousands of new, more fuel-efficient locomotives that emit fewer criteria pollutants and GHGs over the past decade.

Operational Improvements: Carrying an average of 3,667 tons of freight per train in 2019, up 25% since 2000. By carrying more freight, railroads reduce unnecessary train and railcar movements, which reduces fuel use.

Fuel Management Systems: Developing and installing computer systems that calculate the most fuel-efficient speed for a train over a given route, determine the most efficient spacing and timing of trains on a railroad's system and monitor locomotives to ensure peak performance and efficiency.

Zero-emission Cranes: Increasing use of zero-emission cranes to transfer containers between ships, trucks, and trains at ports and rail facilities.

Aerodynamics & Lubrication: Adopting operational fixes to reduce fuel use. For example, advances in lubrication techniques reduce friction, ultimately decreasing drag and saving fuel.

Anti-idling Tech: Installing idling-reduction technologies, such as stop-start systems that shut down a locomotive when it is not in use and restart it as needed.

Distributed Power: Expanding use of distributed power (positioning locomotives throughout the train) to reduce the total horsepower required for train movements.

Training: Training employees and contractors to help locomotive engineers and other personnel develop and implement best practices and improve awareness of fuel-efficient operations.

MORE RAIL MEANS A SUSTAINABLE & MORE PROSPEROUS FUTURE

The potential reduction in transportation-related GHG emissions associated with moving more freight by rail is substantial. If 10% of the freight shipped by the largest trucks were moved by rail instead, greenhouse gas emissions would fall by more than 17 million tons annually. That's the equivalent of removing 3.35 million cars from our highways or planting 260 million trees. Policymakers can help make this happen by removing impediments to transporting freight by rail, promoting policies that enable the rail industry to move more goods, more efficiently, and promoting modal equity in the incorporation of new and emerging technologies. Here are three approaches to consider:

ENCOURAGE COMPETITION & HARNESS MARKET-BASED SOLUTIONS TO REDUCE EMISSIONS

Policies that demand change through market solutions—rather than prescriptive regulations—hold the greatest promise for lasting change and meaningful emissions reductions. Through well-designed policies, market behavior can—and will—shift toward lower-emission fuels and modes of transportation. Several examples of these policies within the transportation space are provided below.

Institute market solutions to reduce emissions

Programs that establish market incentives to reduce emissions from the freight transportation sector specifically should strive to achieve two key policy goals: encouraging businesses to ship their products using modes with lower GHG emissions—such as rail—and incentivizing transportation providers to find the most cost-efficient ways to further reduce or eliminate emissions associated with their operations.

Any broad climate change policies should provide long-term regulatory certainty and be crafted to permit capital-intensive industries to make investment and planning decisions in an economically rational manner while also maintaining their competitiveness. This approach will allow markets, not mandates, to drive the reduction in GHG emissions. An appropriate, predictable policy can enhance the nation's competitiveness, grow the economy, and create jobs.

Return the Highway Trust Fund to a user-pays system

The pending insolvency of the Highway Trust Fund (HTF) should be a matter of significant concern within the larger transportation sector and beyond. Policymakers can address both the solvency of the HTF and climate change through a short-term, temporary fuel tax increase. In the longer term, policymakers should implement a vehicle miles traveled (VMT) fee that takes into account vehicle weight or axle count along with an emissions surcharge (see below for a more detailed discussion).

The United States has historically relied upon a user-pays system to fund investments in public road and bridge infrastructure. Unfortunately, revenues into the HTF have failed to keep pace with investment needs, requiring general fund transfers to cover the shortfall.

According to the Congressional Budget Office, general fund transfers into the HTF have totaled almost $157 billion since 2008, including the $13 billion provided by the continuing resolution signed on October 20, 2020. An additional $203 billion could be required to cover expected deficits through 2030.[2] With the one-year extension of the FAST Act, the issue of HTF solvency will come to a head in September 2021.

Funding the HTF through a VMT fee instead of the existing gas and diesel taxes could also resolve impending insolvency and restore a user-pays model. Additionally,

[2] Congressional Budget Office, The Outlook for Major Federal Trust Funds: 2020 to 2030, September 2020, page 3.

a VMT fee offers the opportunity to create a more equitable system of funding public road and bridge infrastructure by ensuring that all passenger and commercial vehicles pay for their use. Because the technologies to implement a VMT fee are still under development, a modest, short-term increase in the gas tax and the diesel tax over the next several years would still be required to shore up the HTF.[3] However, while fuel taxes incentivize the purchase of more fuel-efficient vehicles, they are not the long-term solution for HTF solvency.

Impose an emissions surcharge and provide dedicated funding for passenger rail

Imposing a graduated emissions surcharge based on the fuel efficiency of vehicles (utilizing Environmental Protection Agency miles per gallon ratings), in addition to a VMT fee, as discussed above, could encourage the transition to more environmentally-friendly passenger and commercial vehicles. Doing so would also raise additional revenues for the HTF.

From a modal-shift perspective, a reliable passenger rail network is the most environmentally-friendly mode to move people over land[4] and is essential to helping address transportation-related emissions. Intercity passenger rail is the only mode of passenger transportation in the United States that does not receive any dedicated federal funding through a trust fund, leaving Amtrak completely dependent upon annual discretionary appropriations. This fiscal uncertainty makes it difficult for Amtrak to plan its operations and capital needs for the long term. Given the benefit of reduced congestion on our nation's highways, a Passenger Rail Account similar to the Mass Transit Account of the HTF could be created, and Amtrak's operating and capital costs could be funded with a portion of the additional revenues from the emissions surcharge. This Passenger Rail Account could be dedicated to Amtrak's Northeast Corridor and National Network Accounts. However, states could also be eligible to receive funding for their state-supported routes.

DRIVE RESEARCH & ADOPTION OF PROMISING TECHNOLOGIES

Significant investments in national and sector-specific research are essential to unlocking energy solutions capable of powering our economy and reducing GHG emissions. Just as important as discovering new lower-or-zero-carbon fuels and technologies is ensuring American businesses can test and adopt these innovations. Below are a few policy proposals that will boost and further innovation.

Embrace partnership opportunities for research funding

Despite impressive improvements in fuel efficiency, railroads continue to search for ways to further reduce their GHG emissions footprints. Technological advancements will play a major role in future gains, and AAR supports increased federal funding for research into a variety of technologies on the cusp of economic viability.

For decades, diesel fuel has been the only realistic option to power freight rail locomotives. However, BNSF and Wabtec are working with the California Air Resources Board to test a prototype long-haul battery electric locomotive. Additionally, Canadian Pacific plans to develop what would be North America's first line-haul hydrogen-powered locomotives and conduct rail service trials and qualification testing to evaluate the technology's readiness for freight rail operations. Finally, Progress Rail and the Pacific Harbor Line are planning a demonstration project of a new EMD Joule battery electric locomotive in the Ports of Los Angeles and Long Beach. These projects have the potential to further reduce GHG emissions.

Partnerships between the federal government and railroads to further research and develop technologies that fuel locomotives with alternatives to traditional diesel fuel are also essential to advancing innovation. Additional funding should be provided for the development of battery and fuel cell technologies, such as the ongoing efforts at the Joint Center for Energy Storage Research (JCESR), a Department of Energy (DOE) Energy Innovation Hub focused on technologies to enable next-generation batteries.

Another potential fuel source is "blue hydrogen," which is hydrogen made from natural gas in a way that captures, stores, or reuses associated carbon emissions. Similarly, biofuels are traditional fuel alternatives including ethanol, biodiesel (diesel made from nonpetroleum renewable sources such as natural fats and vegetable

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[3] While technologies may not yet be available for implementation of a VMT fee for personal vehicles, previous Congresses have considered proposals to implement a VMT fee for commercial motor vehicles utilizing existing electronic logging devices to measure miles travelled.

[4] https://www.uic.org/com/IMG/pdf/iea-uic__2012final-lr.pdf.

oils), and renewable hydrocarbon biofuels or green drop-in fuels (renewable hydrocarbon fuels derived from biomass sources that are comparable and compatible to existing petroleum-based fuels). Although biofuels and renewable diesel are widely available as fuel blend stock, there are limited ASTM standards for these fuels, and equipment manufacturers have been leery of approving their use in locomotives. Additional funding for research on these lower-or-zero-carbon fuels and technologies will speed their adoption and continue to inform the development of standards for such fuels. Finally, funding should continue to be provided for grants under the Diesel Emissions Reduction Act (DERA) program.

Support policies to further develop carbon capture, utilization, and storage technology

Policymakers should continue to invest in the development and scaling of technologies that would both reduce emissions and keep the economy moving. Carbon capture, utilization, and storage (CCUS) technology is one of these solutions.

CCUS technology would allow industries to capture up to 90% of emissions and prevent their release into the atmosphere. Since 2008, Congress has provided a tax credit (Internal Revenue Code Section 45Q) on a per-ton basis for CO2 that is captured and either sequestered or utilized. As a result, many programs, including pilot and demonstration projects, have been proposed to spur industries and create new markets for CCUS technology. AAR supports efforts to further mature this technology and expand the commercial use of CCUS technology through market development programs and tax incentives. Encouraging storage and broader industrial utilization of captured carbon creates new economic opportunities, and railroads believe this technology can be an important part of a broad effort to address the impacts of climate change.

Since railroads provide the most fuel-efficient way to move freight over land, railroads believe they can play an integral part in the broader utilization of CCUS, as transportation remains one of the bigger challenges of scaling up CCUS technology. In most cases, captured carbon dioxide must be transported from the point of capture to a permanent storage site. Current limited capacity for these movements has been a significant challenge to further scaling up CCUS technology. Today, trucks, ships, and pipelines transport the carbon that has been captured from the gases produced in electricity generation and industrial processes as part of a CCUS chain using the same technologies as those used to transport natural gas, oil, and other fluids. The rail industry has decades of experience safely transporting carbon dioxide. Moreover, construction of new pipelines in the United States can be a lengthy process that is expensive and subject to intense community and legal opposition.

Railroads are a nimbler transportation solution that can increase traffic as needed, while also meeting demand from varied origins and destinations. As plans for new CCUS facilities are developed, the carbon captured at these facilities could be transported via rail. This would minimize additional GHG emissions, avoid unnecessary highway congestion, and take advantage of the world-class private rail network already in existence. It is likely the facilities where carbon would be captured—and the destination where it would be stored or utilized—already have rail service.

Help railroads test and deploy green technologies by streamlining waiver acquisition

Railroads have shown their commitment to developing, testing, and deploying new technologies that reduce the environmental impact of their operations. Policymakers should offer industries—including freight rail—operational and regulatory flexibility to encourage further innovation. This would allow railroads to experiment with new technologies and processes that could help meet environmental goals, including decarbonization and lower emissions. This needed flexibility could cover everything from technologies and procedures to increase fuel efficiency to new technologies that require extensive testing and research. Flexibility and streamlining are necessary to empower the rail industry to explore these options without risking regulatory enforcement. For example, policymakers should consider streamlining waiver review timelines, encouraging pilot programs, and establishing performance-based thresholds.

PARTNER WITH INDUSTRY TO ADVANCE SECTOR-SPECIFIC PROGRESS

Each American industry—including freight railroads—has its own unique set of advantages and challenges to reducing its impacts on the environment. For long-term, sustainable gains, these stakeholders are essential partners in identifying and prioritizing proposals that will empower real change in their own operations. Freight railroads stand ready to be partners in this effort and need policymakers to understand what is already working, as well as what is untenable for the nation's 140,000-mile rail network.

Ensure railroads can invest in maintaining and greening their infrastructure

An efficient and sustainable rail industry depends upon railroads' private investments, which the Staggers Rail Act of 1980 helped make possible by creating a balanced regulatory system. Partial deregulation allowed railroads to improve their financial performance from anemic levels prior to Staggers to much healthier levels today. That, in turn, has allowed railroads to pour nearly $740 billion—of their own funds, not taxpayer funds—back into their networks since 1980. These investments have greatly improved the productivity and sustainability of their operations. Policy decisions that upset the productivity and efficiency gains of the railroads or shift freight to other modes of transportation can impact the environment. Policymakers must maintain the existing regulatory balance to ensure railroads can meet customers' needs in a safe, reliable and sustainable manner.

Invest in what works

As policymakers examine potential solutions, they should invite stakeholders to the table to provide needed insight and prevent the wasting of resources. While AAR encourages federal investment in the development of technologies that reduce GHG emissions, policymakers should avoid prescriptive means for reducing emissions by certain industries and allow innovation to guide GHG emissions reduction decisions. For example, studies over the years have consistently shown that the catenary electrification of the freight rail network would be unworkable. Initiatives, such as catenary electrification, that are clearly not viable should be set aside to focus on and invest in policies and programs that will work to reduce GHG emissions and combat climate change, such as those noted above.

Statement of Nicole Brewin, Senior Vice President of Government and Public Affairs, Railway Supply Institute, Submitted for the Record by Hon. Peter A. DeFazio

Chairman Payne, Ranking Member Crawford, and Members of the Subcommittee:

Thank you for convening this hearing to examine the importance of rail to the economic success and environmental sustainability of the United States. With over 140,000 miles of passenger and freight rail across the country, the rail industry serves as a backbone of the U.S. economy, offering an efficient, affordable, and environmentally friendly means of transporting goods and people.

As way of background, the Railway Supply Institute (RSI) is an international trade association representing more than 175 companies involved in the manufacture of goods and services in the locomotive, freight car, maintenance of way, communications and signaling, and passenger rail industries. RSI members provide critical products to Class I and short line freight railroads, shippers, Amtrak, and transit authorities nationwide and work with these customers to create new products or services that drive enhancements in safety and efficiency across their networks.

These systems are supported by an extensive, *domestic* railway supply industry that has been a dynamic and vital part of the U.S. economy for over 200 years, encompassing 125,000 jobs across all 50 states and paying an average wage 40 percent higher than the national average.[1] This industry also contributes billions of dollars to the national economy every year, producing $10.7 billion in federal taxes and over $6 billion in state and local taxes every year.[2] Without this robust domestic rail sup-

[1] Tracking the Power of Rail Supply, The Economic Impact of Railway Suppliers in the U.S. https://www.rsiweb.org/Files/EIS%202018/RSI-Infographic%20FINAL.pdf

[2] Id.

ply industry, our nation's passenger and freight railroads simply could not meet their customers' needs.

As Congress looks to examine areas where you can strengthen American rail infrastructure and support American jobs, we welcome the opportunity to highlight several issues facing the railway supply industry and encourage Congress to keep this industry in mind as it considers any form of surface transportation reauthorization or large infrastructure package.

SUSTAINABLE FEDERAL INVESTMENTS TO SUPPORT PASSENGER AND FREIGHT RAIL

RSI strongly supports an infrastructure package that helps to improve the safety, reliability, and productivity of the nation's transportation system. The federal government should reauthorize a long-term surface transportation authorization act, with funding from predictable, dedicated, and sustainable sources for the Highway Trust Fund (including the Mass Transit Account). This legislation should include increased capital investments in our intercity and commuter passenger rail system and with investments designed to improve the efficient movement of freight through public-private partnerships. Continuation of policies helping to sustain significant private sector investment in our nation's privately-owned freight rail systems is also vital.

MODAL EQUITY IS KEY TO ECONOMIC AND ENVIRONMENTAL PROGRESS

The current federal gas tax of 18.4 cents per gallon and 24.4 cents for diesel fuel has not been increased for more than 25 years and is no longer enough to fund the nation's infrastructure needs. As a result, Congress has been forced to use $143 billion of general taxpayer funds to supplement Highway Trust Fund revenues since 2008, and trucks are estimated to be paying only 80% of the damage they inflict on our nation's roads and bridges. We encourage Congress to restore modal equity with full eligibility for rail and public transportation investments in recognition of the substantial non-user fee contribution to the Highway Trust Fund over the past decade, and overall increase the federal commitment to and investment in infrastructure.

Moreover, any efforts to increase truck sizes and weight on our nation's interstates would also have negative economic, environmental, and safety impacts. Increasing either the allowable weight or lengths of trucks would divert freight traffic from the railroads to the nation's highways while reducing railroad resources available to invest in maintenance and capacity. Any such destabilizing changes negatively affect freight rail service as well as intercity passenger rail and commuter rail services depending on freight rail infrastructure. Shifting freight from rail to highway would increase congestion, transportation-related fatalities and injuries, fuel consumption, harmful emissions, and highway maintenance costs, and worsen pavement conditions.

STRENGTHENING BUY AMERICA WILL ENSURE FEDERAL INVESTMENTS STAY IN THE UNITED STATES

The Buy America program was created to promote U.S. manufacturing and help the domestic economy by creating jobs for Americans and maximizing the use of American-made materials. By design, Buy America laws were written to ensure that taxpayer dollars made available for constructing and sustaining our public transportation systems would flow back into the U.S. economy and discourage the outsourcing of these manufacturing jobs to other countries. Reforms and improvements to Buy America are needed to ensure that these goals are realized.

Specifically, RSI believes that the U.S. Department of Transportation currently lacks adequate resources to ensure strict compliance with Buy America provisions. Congress should direct USDOT to exercise stricter oversight of Buy America to help keep grant funding in the United States and spur the domestic jobs critical to maintaining a strong American manufacturing base. Allowing the Federal Transit Administration (FTA) to conduct audits in-house would also help ensure better consistency and efficacy of this important program.

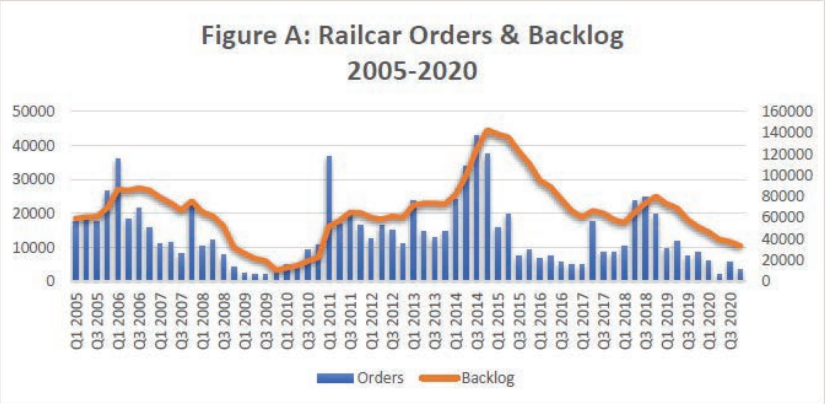
In addition, RSI also supports modifying Buy America laws to ensure that if a transit agency accepts any source of federal funding, then all of that agency's capital expenditures should be required to adhere to Buy America.

GREEN TAX CREDITS WOULD INCENTIVIZE PRIVATE INVESTMENTS TO SUSTAIN AND PROMOTE FREIGHT RAILCAR MANUFACTURING

Legislation is needed to incentivize private investments to sustain the tens of thousands of American jobs tied to the freight railcar industry as we recover from the economic effects of COVID–19. The Freight RAILCAR Act (H.R. 8082) is a bipartisan bill that would offer time-limited tax credits to incentivize freight railcar owners to replace older, less efficient vehicles with more modern and environmentally friendly railcars. This legislation would help stem the significant job losses the railway supply chain has experienced in recent months and preserve critical supply chains that our freight and passenger railroad and shipper customers depend on.

Based on a 2017 Oxford Economics study, the rail supply community delivered nearly $75 billion a year in economic value and directly employed 125,000 Americans across the country.[3] We now estimate that those numbers have declined substantially since that period, with the vast majority of those declines happening over the past eight months. According to an internal survey of RSI's members, half of all respondents reported seeing permanent layoffs at their company as a result of the pandemic. Several of the largest freight railcar builders and their component suppliers have also reported layoff rates nearing or exceeding 50 percent, with an expectation that more will come if action is not taken by Congress to help this industry.

Data compiled by RSI on rail freight car orders and deliveries over the past 15 years has shown freight railcar orders falling dramatically in the past several quarters. In Q2 2020, new railcar orders fell to match the low point of the Great Recession (Figure A),[4] where industry unemployment reached 18.5 percent.[5] While orders have rebounded slightly in the time since, they remain far below pre-pandemic levels, putting rail industry demand for new railcars at a level that is unsustainable for many suppliers looking to keep their doors open. If action is not taken, we could see long-term impacts that devastate the railway supply chain for years to come if this trend does not improve substantially moving forward.



Source: American Railway Car Institute Committee, Railway Supply Institute

ENSURING A LEVEL PLAYING FIELD WITH FOREIGN STATE-OWNED ENTERPRISES

Over the past decade, our industry has witnessed substantial intervention in the global rail marketplace from non-market economy foreign governments. Most notably, the People's Republic of China—working through state-owned enterprises (SOEs) like CRRC—has identified rail manufacturing as a strategic market sector and made clear their intention to "conquer" the global rolling stock market.[6] Backed

[3] Ibid.

[4] Railway Supply Institute, American Railway Car Institute Committee Quarterly Statistics 2005–2020.

[5] U.S. Bureau of Labor Statistics, Transportation Equipment Manufacturing, July 2009

[6] @CRRC_global, "Following CRRC's entry to Jamaica, our products are now offered to 104 countries and regions. So far, 83% of all rail products in the world are operated by #CRRC or are CRRC ones. How long will it take for us conquering the remaining 17%?" Twitter, January 11, 2018.

by the full resources of the Chinese government, CRRC and its affiliates have leveraged direct subsidies, state-backed financing, and below-market loans to secure more than $2.6 billion in railcar contracts at far below market rates for transit agencies in Boston, Chicago, Los Angeles and Philadelphia. These manipulative incursions into the U.S. market present both national and economic security risks. There is ample evidence illustrating the Chinese government's willingness to use industrial espionage, hacking, intellectual property theft, and more to achieve its global objectives, giving us every reason to be concerned about their involvement with critical rail infrastructure and the technology that supports it.

For those reasons, Congress passed the Transit Infrastructure Vehicle Security Act (TIVSA) in 2019 to ensure that federal taxpayer funds are never used to subsidize China's SOE rail firms. Unfortunately, non-binding guidance on the law from the U.S. Department of Transportation leaves open major loopholes that grant certain blanket exemptions to the law, which allow some federal funds to continue to flow to CRRC—and by extension, the Chinese Government. To close these loopholes, Congress must submit clarifying language regarding 49 U.S.C. § 5323(u)(5)(A) to eliminate exemptions that allow certain transit agencies to continue awarding contracts to Chinese state-owned entities.

CONCLUSION

RSI members will continue investing and doing all we can to support our railroad and shipper customers in serving the mobility and economic development needs of communities across the country. We appreciate the opportunity to provide these recommendations on critical issues affecting our industry and will continue working with Members of Congress to formulate policies that enhance rail safety, security, and efficiency.

Statement of Arun Rao, Chair, States for Passenger Rail Coalition, Inc. and Passenger Rail Manager, Wisconsin Department of Transportation, Railroads and Harbors Section, Submitted for the Record by Hon. Peter A. DeFazio

The States for Passenger Rail Coalition (SPRC) is an alliance of 23 State and Regional Transportation Officials and Passenger Rail Authorities across the United States. SPRC's mission is to promote the development, implementation, and expansion of Intercity Passenger Rail as part of an integrated national transportation network.

SPRC appreciates this opportunity to provide comments as the House Transportation and Infrastructure Committee's Railroads, Pipelines, and Hazardous Materials Subcommittee examines the role of rail, and specifically, intercity passenger rail, in support of our Nation's economic and environmental recovery and progress. Intercity passenger rail serves the vital role of providing affordable mobility across the social and economic spectrum encompassing America's rural and urban landscape. Additionally, passenger rail travel helps reduce energy consumption and pollution, including lowering greenhouse gas emissions.

SPRC members sponsor a combined 29 intercity passenger rail routes serving 296 communities across America. In the year leading up to the pandemic, State-Supported trains carried over 15 million passengers, representing over 47% of Amtrak's total ridership, the largest source of ridership among the three Amtrak business lines. They also contributed nearly $750 million to Amtrak through a combination of $521 million in passenger revenue plus $225 million in contract payments. SPRC States are also intimately involved with intercity passenger rail services along Amtrak's long-distance routes and the Northeast Corridor. We are poised to return to these pre-pandemic levels as the Nation's health and economy improve, and the traveling public returns to take advantage of the economic, health, safety, and environmentally beneficial aspects of traveling by passenger rail.

ECONOMIC REVITALIZATION AND PASSENGER RAIL

The availability of easily accessible, safe, frequent, and reliable passenger rail has long been integral to America's development and supporting commerce. In our Nation's history, our cities and towns have grown and prospered due to the ability to move people efficiently. Intercity passenger rail has been an integral part of that growth. Many State-Supported routes and the NEC are essential to the business community in their regions and companies' operations that provide thousands of jobs. It is often the business community that is calling for increased frequencies or

expanded routes. We also have seen across the country train stations with significant passenger activity spurring development nearby and influencing corporate locational decisions. Intercity passenger rail also plays a vital role in supporting businesses and workers transitioning to teleworking part-time in a post-pandemic economy. It enables workers, for example, to live in one city, telework from their homes part-time, and travel to their place of work in another city part-time. In such cases, passenger rail plays a pivotal role in avoiding congestion, tolls, parking, and driving time, and in enabling productive work while in route.

Furthermore, intercity passenger rail is just as essential to the citizens in rural and small urban communities served by the existing Amtrak long-distance routes as it is to our metropolitan centers. Intercity passenger rail enables these smaller communities to attract and retain businesses, jobs, and talent by connecting them with their regions' economic epicenters. Small businesses in many Amtrak-served rural communities rely on the business that an Amtrak station brings in and are eager to see service increased. Just as important is the tourism business facilitated by intercity passenger rail services.

As our Nation continues its economic recovery from the devastating effects of the COVID–19 pandemic, the passenger rail industry is prepared to aid in economic growth, for it is a powerful generator of jobs. More than 750 companies located in at least 39 states manufacture components for passenger and commuter rail. Over 200 of these companies in 32 states manufacture passenger rail cars, locomotives, or significant parts and their systems. Many of these manufacturers and suppliers have collaborated with the Next Generation Equipment Committee (NGEC), established by Congress in Section 305 of PRIIA. This collaboration has led to the development of standardized passenger rail equipment specifications that have lowered costs, revitalized domestic production, and invigorated the supply chain while creating high-wage jobs.

Additionally, the rail manufacturing supply chain and companies providing rail industry repair, maintenance, and re-manufacturing services are located in virtually every state and often in communities far from the rail systems themselves. Continued investment in intercity passenger rail is one of the critical forces in regional economic growth. The SPRC Member States and Regional Passenger Rail Authorities stand ready to serve as active partners with the business community in expanding our local and regional economies.

ENVIRONMENTAL BENEFITS OF PASSENGER RAIL

Not only does passenger rail service support economic development it also helps reduce roadway congestion and lessens the toll on our environment. It is well documented that intercity passenger rail consumes significantly less energy per passenger mile and produces fewer greenhouse gas emissions and other pollutants than airplanes or motor vehicles. A single regional intercity passenger rail route with multiple daily roundtrips can divert tens of millions of pounds of CO2 emissions annually in that region and save millions of gallons of fuel. Passenger rail will play an increasingly important role in meeting the demand for transporting people, goods, and services while reducing environmental impacts and improving the overall quality of life.

One significant societal benefit from intercity passenger rail investment is the enhancement of air quality through the development and utilization of alternative fuels. One such alternative fuel is biodiesel. Biodiesel is a renewable, biodegradable fuel manufactured domestically from vegetable oils, animal fats, or recycled restaurant grease. SPRC Member organizations continue to study operating passenger locomotives on biodiesel fuel to demonstrate that they can work with no performance loss while improving air quality.

Thank you for this opportunity to weigh in on this crucial topic. We stand ready to respond to any questions you may have or elaborate on our testimony, especially as you continue drafting our Nation's next long-term surface transportation authorization legislation.

White paper entitled, "American High-Speed Rail and Rebuilding the U.S. Economy," by the Office of Hon. Seth Moulton, Submitted for the Record by Mr. Moulton

MAY 8, 2020

A VISION WORTHY OF THE MOMENT

Emerging from the global devastation of World War II, America built an economy that quickly became the envy of the world. It was built upon a foundation of new infrastructure, funded by Congress and the American taxpayer, that dramatically expanded jobs, transportation options, and access to markets for people and businesses across the country. America didn't just rebuild 19th-century infrastructure; our nation built 20th-century systems to meet the demands and opportunities of a new economy.

Today our infrastructure, much of it dating to those postwar years, is failing. And like that time, simply rebuilding the infrastructure of the last century will be insufficient to meet either the demands or the opportunities of an economy that is changing faster than ever before. As automation and artificial intelligence come to support every aspect of our lives; as a global pandemic sharpens our focus on ensuring domestic manufacturing capacity; and as a new generation of Americans demand next-generation transportation options, we cannot rely on the technologies of the past. In the 1950s, we didn't just add lanes to our state highways or make dirt runways longer; we built interstates and international airports. Today, relying solely on highways while the rest of the world speeds past us in high-speed trains would be akin to investing billions in laying more copper telephone lines while the rest of the world installs fiber optics.

Our global competitors recognize this: $46 billion is expected to be invested annually in high-speed rail and transit in China from 2020–2030, about 27% of their transportation budget. Even Morocco, with roughly half a percent of our GDP, invested $2.2 billion in Casablanca-Tangier high-speed rail as the first leg of a connection between its major cities and less developed communities in the Western Sahara Desert. Saudia Arabia, gushing with oil, just completed a 280-mile electrified high-speed line that headlines its new infrastructure push to link holy cities, like Mecca and Medina, and commercial centers, like Jeddah, with King Abdulaziz International Airport and communities along the Red Sea coast. These are just but a few examples. It's time for America to catch up, or the world economy will leave us behind.

Given the fundamental efficiencies and competitive advantages of rail—so fundamental that American freight railroads continue to fund their own infrastructure while the American taxpayer foots the bill for all our roads—there is a strong argument for shifting a larger proportion of government transportation investment to rail, just as China has done. Such a bold move would make Eisenhower proud, but our politically fractured times make grand visions much more challenging. So what we should do, at a bare minimum, is level the competitive playing field so that certain modes are not propped up with huge artificial government subsidies over more modern, more competitive alternatives, which offer a more efficient use of limited taxpayer dollars. In other words, let America's free market thrive in next-century transportation and infrastructure by simply allowing high-speed rail and other 21st-century technologies to compete against older options.

This is far from the case today. While robust funding mechanisms exist to build highways and airports, no trust fund nor formula funding exists—at all—for even last century's intercity passenger rail, not to mention high-speed rail or future technologies like maglev or Hyperloop. Without basic federal standards or regulations for high-speed rail, every proposed project entails tremendous delays and regulatory costs. As a consequence, while China builds 250 mph railways, our Amtrak putters along most of its routes at speeds slower than trains plied the same old rail lines in the 1930s. Almost all freight lines in Europe are electrified, and cleaner and faster as a result, yet Congress has given no incentives to American freight carriers to do the same. Even most of our commuter trains still dawdle along behind diesel engines.

The consequence is hundreds of billions of dollars of added costs to our economy—from lost time and business due to historic traffic congestion, to environmental degradation and land waste on a massive scale—as well as hundreds of billions in lost economic opportunity. Consider how the Houston-Dallas market would expand if you could get downtown-to-downtown in 90 minutes, every fifteen minutes. Or what New York-Chicago travel would look like without weather delays, ever. Or how much more connected Tulsa and Oklahoma City would be on a high-speed line with hourly service between Dallas and Kansas City. Indianapolis, Louisville, Nashville,

and Chattanooga would all be stops on a high-speed line with hourly service between Chicago and Atlanta. While business travelers in China regularly travel Atlanta-Chicago distances by high-speed train—with more frequent service, far nicer accommodations, no weather disruptions, and much more time aboard rather than in terminal lines or security checks—Americans only have one viable travel option. Notably, Chinese travelers can go by airline or highway as well, but they have choices, and the market has strongly favored travel by high-speed rail. And this is true not just for passengers but high-speed package delivery as well, an increasingly large part of the new economy. In addition, building an interstate high-speed rail network would directly support millions of construction and permanent jobs, boost domestic manufacturing and steel production among other industries, and free up our existing airport, highway, and freight rail infrastructure to focus on higher-value business.

There is a reason why nearly every other developed country in the world—and several developing ones—consistently choose high-speed rail over highway and airport investments for corridors 750 miles or less, which accounts for most major city pairs throughout the United States. The reason is basic economics or, more bluntly, math. Existing Washington lobbies have distorted the market and held America back for too long. It's time to level the competitive playing field, let the free market thrive in transportation as it does elsewhere in the American economy, and give a new generation of Americans, competing in a new world, the options and efficiencies we demand.

Political Opportunity

High-speed passenger rail development presents an opportunity to align major constituencies and form a broad coalition to transform our transportation infrastructure. Next-generation workers of all political stripes are seeking modern transportation options. Connecting major city pairs and intermediate communities along HSR corridors will revolutionize the modern commute, allowing us to remain personally or professionally productive while traveling from our more affordable hometowns to fast-growing city centers where the majority of new jobs are being created. Speaking generally, Democrats have led support for new transportation options in Congress. Meanwhile, Republicans and business leaders are seeking more private sector investment and ideas in transportation development. Private entities, from tech companies like Microsoft to railway operators like Virgin Trains USA, have already begun planning and preparing to develop HSR corridors because of the broad economic gains brought to the firms directly and indirectly served by these lines. Energy suppliers and utility companies will also gladly meet the demand for electrified rail, and well over half of congressional districts and almost every state, represented by both Republicans and Democrats, already host rail suppliers, manufacturers, and steel producers despite low investment in rail to date. At the policy level, state and metropolitan planners believe HSR is a necessary option to connect our regions, drive our economies, and reduce congestion and strain on other modes. Environmentalist interest in more sustainable transportation options is well aligned with private-sector industry desire for improved traveler experience and reduced land use, energy consumption, and emissions—all of which come with proven high-speed rail technology.

To unite this broad coalition, federal leadership is required in several areas. To expedite planning and development, America must establish high-speed rail standards and regulations, a critical step that has eluded the Department of Transportation for decades. We need to create a framework to partner with private freight railroads, whose rights-of-way (ROWs) are sometimes advantageous routes for development, while—critically—maintaining existing freight service and growth potential. And the federal government should contribute funding to encourage state, local, and private investment as we do with other transportation modes, creating job growth and flexibility during the economic downturn.

Congress will consider many infrastructure priorities in the midst of the coronavirus pandemic, so as we weigh alternatives, it is worth noting that modern high-speed trains allow passengers to sit much further apart than in airplanes or even in shared private automobiles. Economically, this is an unprecedented time to leverage low borrowing costs and high demand for federal stimulus to prioritize market-driven infrastructure investments that have the potential to rival the economic benefits of Eisenhower's Interstate System over time. This proposal is not about eliminating funding for other infrastructure projects but prioritizing limited federal dollars for wiser investments with greater returns for our future.

Public-Private Partnership

Historically, building a country's first high-speed line is the hardest, and then investment proceeds rapidly once people have a taste of its potential. Yet despite still not having a single high-speed rail line, American private companies have already demonstrated strong interest in major investments. Microsoft's partnership with the governments of Oregon, Washington, and British Columbia on a feasibility study and business case serves as one example. Two primary goals underlie Microsoft's interest in HSR. First, it will help attract and sustain a skilled workforce by offering fast, reliable commutes between employment hubs and attractive communities with more affordable housing. Second, connecting the major economic hubs within the Cascadia megaregion will spur better collaboration and make—what Microsoft CEO Brad Smith has dubbed the Cascadia Innovation Corridor—more competitive with other technology and innovation hubs across the world.

This proposal incentivizes increased public-private partnerships (P3s), such as the partnership between Microsoft and state and provincial governments in the Pacific Northwest, by prioritizing projects where at least 20% of funds are non-federal and allowing non-federal funds to come from private sources, not just from state and local governments. Transportation firms and investment vehicles will gain access to federal grants and a federal framework for development while partnering with a public entity. And firms well beyond the transportation sector will be encouraged to invest, knowing their contributions raise the priority of projects that will benefit their and their employees' interest. Even if every successful grantee under this proposal includes just the bare minimum non-federal funding to achieve priority status, an additional $38 billion will be leveraged for HSR planning and development.

Some private entities, like Texas Central Railway (TCR) and Virgin Trains USA, are currently developing higher-speed and high-speed passenger rail corridors, and this proposal would accelerate their progress. TCR will provide fast and reliable travel between fast-growing Dallas and Houston, with an intermediate stop in the Brazos Valley, turning a 6-hour drive or 3-hour flight into a 90-minute train ride from city center to city center. Virgin Trains USA operates higher-speed rail in Florida called Brightline and is developing a service called XpressWest between Las Vegas and Victorville, CA, with plans to tie into Palmdale and the government-funded California high-speed passenger rail network. While this proposal requires participation from public entities to receive federal funding for HSR planning and development, it expands eligible recipients to include P3s and could expedite current and future projects that have been exclusively publicly- or privately-led thus far. Federal dollars could turn TCR and XpressWest, which are transformational by U.S. standards but modest by international standards, into hugely successful projects with far bigger ridership and economic benefits, just as federal dollars augment state highway projects. For example, funds could be used to help build an extension of TCR to Fort Worth or the final leg of XpressWest into Palmdale and Los Angeles.

COORDINATED, COMPETITIVE NATIONAL TRANSPORTATION STRATEGY

A coordinated, competitive national transportation strategy would allow all modes—including aviation, rail, and highways—to grow and concentrate where they hold a competitive advantage. This is a hallmark of more famously efficient transportation networks like Germany's. Lufthansa's Rail and Fly program promotes single-ticket travel across Germany by high-speed passenger rail to connections with international flights at Frankfurt International Airport. This has allowed the airline to discontinue less-profitable domestic routes, such as the roughly 90-mile flight from Frankfurt to Cologne. It also frees up the Autobahn for high-speed auto travel to destinations only accessible by automobile. In the U.S., there are already signs of an appetite for such a strategy. Virgin Atlantic Airlines operates routes with destinations in Miami, Orlando, Las Vegas, and Los Angeles—all of which are currently served or will be served by Virgin Trains USA, which would happily provide coordinated transportation for air travelers.

In contrast, U.S. transportation spending is overly prescriptive, essentially forcing investment in highways and aviation while effectively blocking high-speed ground transportation alternatives regardless of what makes the most economic sense. Not only are funding mechanisms for high-speed options non-existent, the current USDOT benefit-cost analysis (BCAs) treats many of the benefits high-speed passenger rail accrues as externalities. As a result, these BCAs favor investments in other highways and airports while creating significant opportunity costs in unrealized travel time and emissions savings, lost safety and efficiency gains, and massive lost economic development. Because America has invested next to nothing in high-speed rail to date, we have a lot of low-hanging fruit in undeveloped projects with outsized economic returns compared to pouring more money into overly-congested

alternatives. Washington State's Secretary of Transportation Roger Millar characterized one example: "For $108 billion we've got another lane of pavement in each direction, and it still takes you all day to get from Portland to Vancouver. Half of that invested in ultra-high speed rail, and it's two hours. That's game-changing stuff."

To promote a more balanced, efficient use of taxpayer dollars, this proposal incorporates new factors in state, metropolitan, and non-metropolitan transportation plans, including comparing land use, benefit and cost streams at their present value (e.g. travel time savings, productivity gains, passenger safety, etc.), and outcome benefit measures for cumulative effects over the lifecycle of a transportation system (e.g. regional land development, economic development, lifecycle public health and environmental costs) across different modes.

High-Speed Rail's Competitive Advantage

International experience has proven that high-speed rail excels in corridors 100–750 miles long, primarily when connecting two or more large cities and their intermediate communities. Routes would want to attract business travelers in addition to commuters, tourists, and general transportation travel.

Many rail corridors meet these criteria, including the 11 federally-designated HSR corridors. Some have falsely argued that high-speed rail is not suitable for America because it is so big. Even before China disproved this assumption, Europe's integrated network provided a good counterpoint where the most popular corridors are shorter legs even though the network nearly spans the continent. Most Americans might not opt for HSR travel from Chicago to Los Angeles, but each leg of Amtrak's Southwest Chief connecting Chicago, Kansas City, Topeka, Albuquerque, Flagstaff, Los Angeles, and their intermediate communities meets the conditions identified above and would attract significant ridership while boosting local economies. Similarly, the air or highway route from Chicago to California's Bay Area passes through Omaha, Denver, Salt Lake City, and Reno.

It is important to note that some rail corridors will not meet the criteria identified above. Much like we have invested in an Interstate Highway System with higher speed limits that connects to arterials, collectors, and local roads, different tiers of passenger rail will be incorporated into a coordinated national transportation strategy. For this reason, this proposal defines two tiers of rail in addition to current passenger rail, which is limited to 79 mph in most corridors. Higher-speed rail would include trains operating between 110 and 186 mph. In many cases, less costly incremental improvements on existing passenger rail lines, like reducing curves, would allow trains to offer higher-speed rail, and as such, 20% of funding under this proposal could be used for higher-speed rail projects. Additionally, this proposal defines high-speed rail using the international standard of 186 mph or greater, which maximizes the economic benefits of HSR in corridors as described above. Balancing investments in both higher-speed rail and high-speed rail will allow the U.S. to pursue a similar investment strategy to France, which has found success continuing high-speed routes on non-high-speed lines to complete journeys without requiring a change of trains.

HSR as Economic Stimulus

President Eisenhower's case for the Interstate System identified six key reasons for the project: unsafe travel, congested roadways, traffic-related backlogs in the courts, inefficiencies in the economy, inadequacy for rapid transport in the face of catastrophe or defense, and the need for a massive public-works program to put millions to work.[1] Sixty-four years later, with low interest rates, national infrastructure decline, and an economy crushed by pandemic, the case for infrastructure investment is clear. But focusing on expanding the Interstate System would be a poor choice for infrastructure stimulus as highway investment is achieving diminishing returns: the billions being spent in highway expansion in metro areas has increased travel time through induced demand and resultant congestion.[2] Forcing everyone into more cars or over-crowded planes has failed for our international peers and is failing here at home.

A new generation of Americans in a new global economy demands better, faster options, and environmental stewardship and economic growth require it. Again, China is a good example, not just because they are our principal economic compet-

[1] Weingroff, Richard. "Original Intent: Purpose of the Interstate System 1954–1956," *Highway History*, Federal Highway Administration.

[2] "The Congestion Congestion Con: How More Lanes and More Money Equals More Traffic," Transportation for America (March 2020).

itor but because they just built their high-speed network in the past decade. Despite inaugurating their first high-speed railway track in 2008,[3] they now lead the world in both speed and scale, boasting nearly 24,000 miles of railways with speeds between 124 and 250 miles per hour. China's government investment also unlocked a competitive transportation network, and now Morgan Stanley Research expects the private sector share of HSR and rail transit investment in China to grow from 25% over the past three years to 50% over the next 10 years.[4]

We are starting from scratch as well, but private-sector investments in planning and developing higher-speed and high-speed passenger rail reinforce the unmistakable conclusion of transportation experts that strong demand exists. Virgin Brightline in Florida operates higher-speed rail while studies show that demand for true high-speed rail along the corridor is many times greater. Virgin Trains USA and Texas Central Railway are currently developing projects in Nevada-California and Texas respectively. Even Amtrak ridership in 2016 was 1.5 times ridership in 2000, outpacing the growth of commercial system enplanement between January 2000 and December 2016 despite terribly slow speeds.[5] Further demand is evidenced by the number of Americans forced to drive long-distance trips or fly short-haul flights. In fact, nearly 90% of long-distance trips in the U.S. are by personal vehicle,[6] and the short-haul flight between Los Angeles International Airport (LAX) and San Francisco International Airport (SFO) is the busiest domestic route in North America and ninth busiest in the world.[7] The gap between supply and demand for higher-speed and high-speed passenger rail demonstrates that 21st century intercity rail represents the transportation mode offering the highest potential for overall economic growth to current and new industries. California's system has had its problems, but despite the current pandemic, more than 3,500 people are still working on more than 100 miles of high-speed rail right now.[8] Dramatically increasing federal leadership and funding for national HSR development after the immediate public health crisis would exponentially increase job growth across a number of industries (e.g. construction, engineering, manufacturing) in the near and medium term, in addition to permanent jobs created for operations and maintenance. Based on a conservative estimate from the Mineta Transportation Institute of the number of jobs created per billion dollars invested in HSR,[9] this proposal would create nearly 725,000 jobs annually over five years, or using the American Public Transportation Association's ratio,[10] this proposal would create more than 1.16 million jobs per year. Further, HSR development induces economic development in real estate, retail, community development, tourism, moderate income housing, and more, and establishes globally competitive megaregions.

Connectivity and Agglomeration Economies across Megaregions

The primary reason why high-speed rail is such a strong economic driver compared to alternative investments is that it best supports 21st-century development in bustling urban centers, walkable downtowns even in much smaller cities and towns, and the agglomeration economies of cities and megaregions that are driving the vast majority of current economic growth. Highways and airports support the sprawly suburban office parks of the 1970s that are increasingly out of favor as an unsustainable development model, inefficient for business and land use, and undesirable for a new generation of Americans.

Real estate, both residential and commercial; retail, including small businesses not just big box stores; community development and tourism; and all education models—all thrive in the land use models naturally engendered by train stations. Dramatically faster commute times to outlying areas likewise increase rural access to city centers and their concentrated job opportunities while allowing city workers to access more affordable housing. These preferred, modern development models represent a unique alignment of commercial, environmental, and social interests (covering a diverse set of political constituencies), and stand in sharp contrast to the

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[3] https://rail.nridigital.com/future_rail_apr19/timeline_profiling_the_evolution_of_china_s_high-speed_rail_network

[4] Xing, Robin, "China's Urbanization 2.0: New Infrastructure Opportunities Handbook." Morgan Stanley Research (2020, March 22).

[5] https://www.transtats.bts.gov/TRAFFIC/

[6] https://www.bts.gov/archive/publications/america_on_the_go/long_distance_transportation_patterns/entire

[7] https://www.businesswire.com/news/home/20190326005439/en/

[8] Rudick, Roger. "High-Speed Rail Construction Continues Under COVID–19," Streets Blog SF (March 25, 2020).

[9] https://scholarworks.sjsu.edu/mti_publications/246/

[10] https://www.apta.com/research-technical-resources/high-speed-passenger-rail/benefits-of-high-speed-rail-for-the-united-states/

acres of parking lots required for the superhighway-based development models of the past century. In other words, walkable downtowns are in favor across the country, by Americans of all political stripes. High-speed rail naturally supports and incentivizes this kind of development without forcing it through onerous zoning laws and restrictions. Thus, not only is this kind of development more preferred by the public, more profitable for business, and more sustainable for our future; it comes care of the free market with high-speed rail, but must be forced *while Americans are forced* to rely on cars and airplanes. This proposal encourages the growth we increasingly desire, and does so through a more open and free transportation market.

Consider again the Pacific Northwest. Washington State's Department of Transportation collaborated with Oregon, the province of British Columbia, and Microsoft to conduct a feasibility study and business case study of HSR in the Pacific Northwest Cascadia Corridor, demonstrating that developing HSR to connect this megaregion is worth the investment. Greater regional connectivity across Portland, Seattle, and Vancouver, with each leg of the trip taking less than an hour, will create an interconnected economic corridor, rather than separate and disparate zones, allowing it to compete with other innovation and technology hubs like Silicon Valley. In fact, the business case study estimates that the project, which will cost between $24 and $42 billion, would deliver $355 billion in regional economic growth.[11] Microsoft CEO Brad Smith characterizes the potential for economic development as a result of HSR development in the business study:

> Our ability to compete in the world's economy will be enhanced dramatically [by] having a region that is 6 million inhabitants strong versus two or three regions of 3 million each. By combining the sub-regions, it is the only way for this megaregion to reach scale. None of the sub-regions can get to 6 million by itself.

In fact, the World Bank found that China has experienced this effect with 1.7 billion business riders creating more than 850 million new opportunities to connect, trade, and exchange ideas annually to drive economic activity, innovation, and increased productivity.[12] Still, economic development is not limited to the major city pairs that will likely serve as terminals in initial high-speed passenger rail corridors across megaregions: intermediate communities with access to HSR service will also benefit, perhaps even more dramatically. Our international peers have recognized this economic benefit. Earlier this year, the British government approved construction of 250 mile-per-hour passenger rail connecting London, Birgmingham, Manchester, and Leeds, which are Britain's four largest metro areas. This new line will open additional opportunities for the British to work in major economic hubs while living in more affordable intermediate communities and enjoying quick, reliable, and clean commutes. Imagine the socioeconomic impact of a similar investment in the federally-designated Chicago Hub Corridor linking Chicago, Detroit, St. Louis, Milwaukee, and their intermediate communities. Americans could leave work in a midwestern economic hub, enjoy a fast, congestion-free commute, and be home in time for dinner in their hometowns.

The connectivity of being able to live in Bellingham, WA, and commute 45 minutes by HSR to a job in the Central Puget Sound opens new housing markets to workers, reduces the costs of living, and shares economic growth with nonurban areas in a megaregion as agglomeration economies expand along a HSR corridor. Take Texas Central Railway (TCR) as another example. When operational, TCR will serve an intermediate station in the Brazos Valley near College Station along during the 60–90-minute trip from Houston to Dallas. Linked to nearby Texas A&M University and the surrounding area, the station will dramatically increase job access for everyone living in the Brazos Valley, not to mention access to all the sports, leisure, and tourism activities of Dallas and Houston. Likewise, getting to Texas A&M games will be much easier for anyone living near these high-growth cities. Over a 25-year period, the project is expected to deliver a $36 billion boost to the Texas economy, not just the economies of Houston and Dallas. While many rural and isolated communities have lost jobs and population as urbanization continues in the U.S., intermediate communities along HSR corridors will benefit from local economic growth as people seek affordable hometowns connected to the economic opportunities in urban centers.

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[11] "Ultra-High-Speed Ground Transportation Business Case Analysis" Washington State Department of Transportation prepared by WSP (July 2019).

[12] http://documents.worldbank.org/curated/en/933411559841476316/pdf/Chinas-High-Speed-Rail-Development.pdf

Creating New Jobs and Industries

Compared to investing in other transportation modes, high-speed rail development has the greatest potential for spurring economic growth. This is primarily because there are so many undeveloped projects with huge benefit-to-cost ratios as none have been completed to date; in other words, there is lots of low-hanging fruit. All of the benefits high-speed rail brings—from agglomeration economies in regions newly-connected with dramatically increased speed and frequency, to huge growth in urban and suburban development and housing, to increased casual and tourist travel—have been documented to result in extraordinary job growth and economic development, to the tune of hundreds of billions of dollars if a full network is built out. The impact would be enormous, especially in comparison to pouring money into more highway projects that have been documented to simply encourage more people to drive at increasingly slower speeds on increasingly congested roadways. But all these indirect benefits aside, it's worth examining even just the direct job creation that would result from this program. Even though it pales in comparison to the broader economic growth high-speed rail will create, it is quite significant on its own.

During the recovery from the Great Recession, the total number of job-years created per federal dollar invested in transportation infrastructure under the American Recovery and Reinvestment Act (ARRA) was greatest among Federal Railroad Administration grants compared to grants administered by other U.S. Department of Transportation administrations such as the FAA or FHWA.[13] This is despite the fact that one of the biggest criticisms of high-speed rail grants as stimulus in ARRA was slow expenditure.[14] The concern is no longer relevant as FRA now has experience administering larger capital grants, and we now have a pipeline of projects ready for funding.

The most direct economic benefits of HSR development come from growth and job creation in construction and operations. Texas Central Railway (TCR) expects to create 40,000 new construction jobs and 1,000 direct permanent jobs when the railway is operational. In California, construction of a relatively small segment of 119 miles in the Central Valley continues during the current public health crisis, employing more than 3,500 individuals. As high-speed passenger rail lines become operational, a new industry and tens of thousands of jobs will emerge for operations, maintenance, and improvements, and additional jobs will be supported as development around stations occurs.

Employment and economic growth, however, are not limited to construction and operations. In 2017, the rail supply sector added $74.2 billion to GDP, supported 650,000 jobs, and contributed $16.9 billion in taxes in communities across diverse geographic regions and populations. HSR requires high-grade steel, which is currently not produced in the U.S., so TCR and its Japanese investors are pursuing a joint venture between Japanese and American steelmakers to produce high-grade steel domestically. This is good for industrial towns such as Pueblo, CO, and Granite City, IL.

Siemens is one example of a company that already produces high-speed passenger rail cars internationally, supports HSR development in the U.S., and has existing plants ready to begin production for domestic high-speed passenger rail. The Siemens plant in Sacramento, CA is already the leading supplier of light rail in North America and the company has decades of experience in adapting world class rail solutions to American market standards, while sourcing supplies in the U.S. in order to exceed Buy America requirements. Today, examples of their locomotives and coaches can be found in Florida with the new Brightline passenger rail service, along the Northeast Corridor with Amtrak's new electric ACS–64 locomotives, in the Midwest and west coast with new EPA Tier 4 certified diesel locomotives on Amtrak's state-supported service, and in U.S. cities from coast to coast that utilize Siemens-built light rail vehicles and street cars. HSR projects would not only result in California jobs; operations at Siemens manufacturing hubs in Pennsylvania, Kentucky, Georgia, Oregon, and Mississippi would also grow, as well as their sub-suppliers in more than 20 states. Even before producing a single high-speed rail train, Siemens has more than doubled its engineering and manufacturing workforce over the past decade in response to demand for locomotives and light rail vehicles.

And this is just one company's story. The economic benefits of a HSR program would extend across the country to a wide variety of firms, including Kawasaki in Nebraska and New York and Alstom in western New York, Florida, and Missouri.

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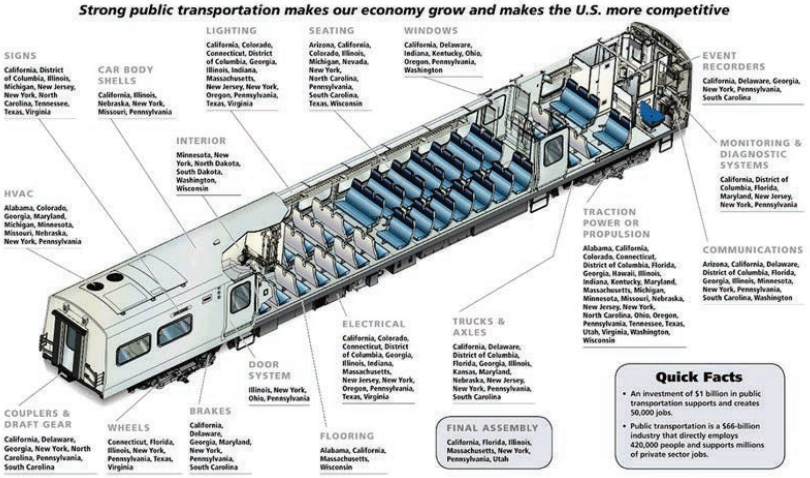
[13] Calculated using the American Recovery and Reinvestment Act (ARRA) 1201(c) report as of January 31, 2012 from the Department of Transportation found at https://www.transportation.gov/policy-initiatives/recovery/arra-1201c-report-january-31-2012

[14] https://www.crs.gov/Reports/R46343

Additionally, 212 companies in 32 states manufacture passenger rail cars and locomotives or major components and systems for these vehicles,[15] creating many jobs in communities even where construction does not occur. Additionally, today's rail vehicles have hundreds or even thousands of digital sensors built in to optimize operations and enhance safety, so job creation does not end with production, as long-term maintenance and optimization requires a permanent staff for high-tech support. For every direct job in the railway supply sector, 4.2 jobs are supported in other industries.[16]



Electrification as an Immediate Next Step

Electric trains are faster, quieter, more efficient, and better for the environment, which is why most major rail lines outside the United States, for both freight and passenger, are electrified. Denver's commuter rail system, the only domestic system built entirely from scratch in the past decade, is completely electrified. But the rest of the country actually had more miles of electrified rail a century ago than we do today. This proposal adds electrification to the existing list of significant improvements to intercity rail passenger service to be prioritized in grant selection.

Again, these investments represent a lot of low-hanging fruit, and will have notably better economic returns than electrifying other transportation modes. Electric planes are still decades from regular commercial operation, and electrifying our highway infrastructure is an important long-term goal, but will only achieve significant environmental gains after existing gas-powered automobiles are slowly phased out. Again, the international comparison is worth examining where most countries have been benefiting from electrified rail for decades. Even Saudi Arabia, sitting on a pot of oil, has electrified its brand-new 280-mile rail line. Put succinctly, America should electrify our transportation infrastructure, but it should begin with time-proven technology.

Opportunity Costs of Our Current Investment Scheme

Our current federal transportation investment program contains massive opportunity costs by not including high-speed rail as an option. Economic externalities accrue heavily to HSR compared to other driving or flying:

- Safety: fewer deaths and injuries
- Public Health: less pollution
- Wasted Time: less time in terminal lines and security checks; no weather disruptions
- Business Growth: in urban centers and walkable communities preferred by employees

[15] Jewell, John Paul and Zoe Lipman. "Passenger Rail & Transit Rail Manufacturing in the U.S." Blue Green Alliance: Clean Transportation (January 2015).

[16] "Tracking the Power of Rail Supply: The Economic Impact of Railway Suppliers in the U.S." commissioned by the Railway Supply Institute and conducted by Oxford Economics, 2018.

- Housing: expanded access and growth in walkable communities
- Overall System Costs: reduced strain on existing aviation and highway assets
- National Security: increased U.S. independence from imported fuels
- Exports: competing with China who uses HSR as part of its Belt and Road Initiative

These benefits all accrue to high-speed passenger rail for our international peers, yet the U.S. has not continued the limited federal funding that was previously available for HSR development, instead investment skews towards transportation modes that score worse across all of these measures.

The comparison with Japan's national transportation system is dramatic. Japan has built out its Shinkansen high-speed network with nine primary lines and three more in development, connecting the people and economies of 22 major cities and spanning its three major islands at speeds up to 200 miles per hour. Since it began operation 56 years ago, the system has experienced zero passenger fatalities or injuries due to accidents. In the U.S. in 2018 alone, there were 36,560 deaths due to motor vehicle crashes and 393 deaths in civil aviation accidents, including one commercial airline passenger fatality. In the same time period, we have lost more than 2.5 million souls to motor vehicle accidents in the U.S. and nearly 20,000 in aviation disasters since 1990.[17] The comparison could not be more stark.

The World Bank calculated the rate of return for China's investment in HSR based on economic, socioeconomic, and sustainability gains as 8%—significantly outweighing the opportunity cost for capital for long-term infrastructure investments in both China and most of the globe—with some lines achieving an 18% return.[18] In fact, 25 Chinese cities and provinces as of March 20, 2020 announced plans to invest $71.28 billion by the end of the year to further stimulate short-term demand and generate long-term growth.[19] China is expected to invest an average of $46 billion, which is equivalent to 27% of their 2019 transportation budget[20] or 0.34% of their 2018 GDP,[21] annually from 2020–2030 in 21st-century high-speed rail and rail transit.

In 2017, the American Public Transportation Association (APTA) produced an initial framework[22] to assess the return-on-investment for HSR projects.

Travel, Societal, and Other Benefits	National	Regional	Local	Owner/ Operator
Travel Time	XX	X	X	
Travel Cost	XX	X	X	
Reliability	XX	X	X	
Consumer Surplus from Induced New Travel	XX			
Safety Impact	XX	X	X	X
Noise Impact	X	X	XX	
Reduction in Greenhouse Gas (CO2)	XX			
Emissions Reduction for Other Pollutants	XX	XX	XX	

[17] For the 56-year comparison, data for automobile fatalities due to accidents is compiled by the National Safety Council and sourced from the National Center for Health Statistics, and this data does not include 2019 or 2020. Annual data for general aviation fatalities is available for 1990–2018 from the Bureau of Transportation Statistics.

[18] http://documents.worldbank.org/curated/en/933411559841476316/pdf/Chinas-High-Speed-Rail-Development.pdf

[19] https://www.fitchratings.com/research/corporate-finance/traditional-projects-to-lead-china-infrastructure-investments-in-2020-08-04-2020

[20] https://www.bloomberg.com/news/articles/2020-03-13/unraveling-the-mysteries-of-china-s-multiple-budgets-quicktake

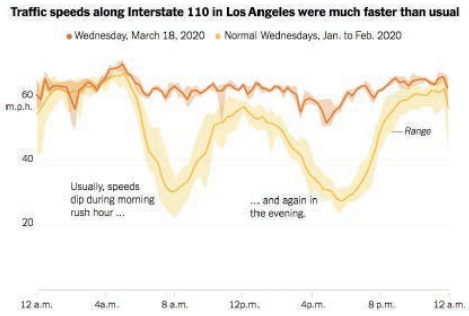
[21] https://data.worldbank.org/country/china

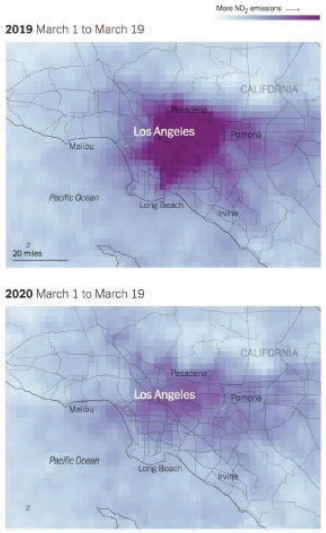
[22] https://www.apta.com/wp-content/uploads/Resources/resources/reportsandpublications/Documents/HSR-ROI-2017.pdf

Travel, Societal, and Other Benefits	National	Regional	Local	Owner/ Operator
Energy Resources: Oil Import Reduction	XX			
Accessibility Benefits (Agglomeration Economies)		XX	X	
Station Area Development			XX	
Regional Economic Development			XX	
Government Revenues from Taxes		X	XX	XX
Service Operator and Facility Owner Costs				XX
Service Operator and Facility Owner Revenues				XX

XX = largest effect seen; X = effect seen

For many, the environmental and public health benefits of HSR will be the most compelling case. HSR will, indeed, drastically reduce pollution, emissions, land use, and energy consumption in U.S. transportation throughout the 21st century. It takes little imagination to envision the environmental gains from HSR development. In fact, the causal sequence of our current response to the pandemic demonstrates short-term congestion, pollution, and emissions reductions through decreased vehicle use, of course without the medium- and long-term benefits that would accompany high-speed passenger rail development.[23] While a similar argument could be made for electric vehicles regarding pollution and emissions, EVs will not reduce congestion, provide reliable commute times, nor achieve the beneficial economic externalities that accrue to HSR. Federal investment in HSR would allow the U.S. to achieve long-term reductions on these metrics and also achieve the economic benefits outlined above. Metro areas today are able to measure the temporary reduction in congestion, pollution, and emissions due to the pandemic, which would become permanent features if travelers could opt for HSR over driving.





[23] Plumer, Brad and Nadja Popovich. "Traffic and Pollution Plummet as U.S. Cities Shut Down for Coronavirus." New York *Times* (March 22, 2020).

CONCERNING OTHER MODES

Freight Railroads

Aware that in some cases the least costly right-of-way option for building high-speed rail is along existing private freight corridors, these railroads have been wary of calls to develop it. Under this proposal, freight railroads are offered incentives to sell, lease, or grant easements on their undeveloped land along existing rights-of-way in the form of assistance to acquire new land opposite the land granted to HSR development. Most federally-designated high-speed rail corridors could find willing partners in developing along undeveloped freight-owned right-of-way with the proper compensation and liability framework established.

Another incentive for freight railroads is that most current Amtrak intercity passenger rail operates on freight lines, so developing HSR on dedicated tracks would relieve significant congestion. Investments in higher-speed rail can benefit freight railroads as well when capital projects improve facilities and increase travel speeds and operating costs (e.g. straightening curves). Light freight, such as packages and mail, is currently transported primarily by plane, but HSR would offer a more efficient and cleaner alternative to the current industry.

Aviation

As a result of incomplete transportation investment analyses, aviation has filled the gap caused by underinvesting in our passenger rail network, even when less profitable and less efficient. For transportation corridors up to 750 miles, high-speed rail offers better journey times than aviation, including less time wasted in terminals or security, and fewer emissions. But far from simply stealing business from the airlines, high-speed rail can help airports and airlines increase profits by reserving runways and gates for higher-margin, longer-distance flights. Recall Lufthansa's Rail and Fly program. Eurostar announced in 2019 that it's London-Paris HSR route has more than halved air travel demand between the two cities.[24] In China, travelers have shifted modes for shorter trips with high-speed rail's ridership doubling that of domestic flights,[25] while the Shanghai Maglev connects the Pudong International Airport to the metro system serving Shanghai, thus making the airport more accessible from the city center.

Many in Congress have bemoaned airline bailouts and subsidies, yet the federal government has not seriously invested in transportation alternatives that are more economically efficient and therefore, in the long term, require less government support. The overlap of destinations between Virgin Atlantic Airlines and Virgin Trains USA shows signs that airlines in the U.S. understand the benefit of a coordinated national transportation strategy. Airports either unable or unwilling to make costly expansions for short-haul routes would benefit from HSR development. For example, San Francisco International Airport (SFO) expects 61 million passengers annually by 2030 and is endeavoring to reduce its frequent short-haul routes, like SFO–LAX, to shift runway capacity to long-haul flights, which move more passengers per plane with fewer flights.[26] Similar to Frankfurt International Airport in Germany, SFO would benefit dramatically from HSR.

America's Car Culture

Underfunding passenger rail networks also shifts travelers toward highways and car use, not by preference but by subsidizing highways and limiting options for travelers. Where conventional passenger rail exists to supplement commutes, systems experience success in moving commuters to rail. For example, Metrolink in Los Angeles has achieved 85% "choice riders" (i.e. riders who also own an automobile) with the leading motivations being less stress, greater relaxation, less expensive, more efficient use of time, and environmental reasons.[27] In regions that only have access to urban economic hubs by highway, super commuters spend hours commuting each way through congested roadways for employment opportunities: more than 10,000 super commuters live in western Massachusetts, some traveling 1,000 miles or more per week for their commutes. Western Massachusetts super commuters would gladly trade in their drive for frequent and reliable 45-minute terminal-to-terminal high-speed travel by train connecting Pittsfield, Springfield, Worcester, and Boston. Furthermore, reams of research document that these trends are only further reinforced

[24] Morgan, Sam. "Planes vs. Trains: High-Speed Rail Set for Coronavirus Dividend" *EURACTIV* (April 15, 2020).

[25] https://www.eesi.org/papers/view/fact-sheet-high-speed-rail-development-worldwide

[26] http://www.bayareaeconomy.org/files/pdf/CaliforniaHigh-SpeedRailOct2008Web.pdf

[27] https://metrolinktrains.com/globalassets/about/agency/facts-and-numbers/metrolink-2018-od-study.pdf

among Millennial transportation preferences for walkable communities, easy access to urban amenities, reliable systems, and a smaller environmental footprint.

By artificially inflating demand for private vehicle travel, the U.S. has underestimated the costs associated with granting primacy to the automobile. The public costs of the vehicle economy are regressive, in that even families without a car subsidize car owners and highway systems. In Massachusetts alone, the total annual cost of the vehicle economy is $64 billion with non-vehicle owning families contributing approximately $14,000 annually.[28] There are obvious costs, such as capital costs and the public health cost of emissions and pollution, and less obvious costs, such as the opportunity cost of land use, lost productivity due to congestion, and public safety costs including accidents. HSR scores better on all of these metrics.

Highway investments now have dramatically diminishing returns. A study found that between 1993 and 2017, states spent more than $500 billion on highway capital investments in urban areas, and induced demand has caused congestion to grow by 144% in these same areas, which is faster than population growth.[29] Washington State explored expanding I–5 between Portland, Seattle, and Vancouver and found that within a few years of completing the highway expansion, congestion would be just as bad as it is currently at twice the price tag of HSR between these cities.

Alternative High-Speed Technologies

Magnetic levitation (maglev) and hyperloop are alternative high-speed technologies at different stages of development. High-speed maglev is a proven technology, with operational experience in Europe, Japan, and China. Notably, pioneering work on the first superconducting maglev (SC maglev) technology was originally performed in the U.S. at Brookhaven National Laboratories. Hyperloop is based on maglev technology and is at the experimental stage with hopes of demonstrating operations in the coming years.

Federal precedent exists for investing in maglev. Starting in 1996, the Department of Transportation found that maglev's viability and benefits were best proven in the densely-populated Northeast Corridor, and shortly thereafter, Congress created the Maglev Deployment Program (MDP) where city pairs competed for federal funding to develop a maglev corridor. After feasibility studies for seven proposed projects, followed by Environmental Impact Statements for the top two pairs, the Baltimore-Washington, D.C. Maglev Project emerged as the winner. Multiple transportation bills propelled progress to date,[30] and now Baltimore-Washington Rapid Rail (BWRR), working with the FRA, State of Maryland, and the District of Columbia, is planning a maglev line that would eventually connect Washington, D.C., to New York at 311 mph for a one-hour trip.

The most discussed firms pursuing hyperloop technology are Elon Musk's Boring Company and Virgin Hyperloop One. If realized, hyperloop could provide a 600-mph transit option by enclosing a maglev system in a vacuum tube. While hyperloop is undemonstrated and the current economics of maglev is favorable only in limited dense urban corridors, projects of these modes should be able to compete for funding as well, and will be able to do so under this proposal.

Deploying new American transportation technology is not only important for its stimulative effect, but it also has implications for our foreign policy. China is exploiting the national security benefits of exporting its own high-speed rail technology to other nations as part of its Belt and Road Initiative (BRI), expanding power globally through international development in a model once perfected by the United States. In Laos, China is currently building infrastructure to support a proposed HSR line from Kunming, China to Singapore, which will also travel through Thailand and Malaysia. The Jakarta-Bandung high-speed passenger rail line in Indonesia is being constructed and operated by a consortium led by China Railway Corp and primarily funded by loans from the China Development Bank. Additional Chinese rail projects include both East and West Africa serving Nigeria, Ethiopia, and Djibouti. Morocco will choose China or France, each being global leaders in

[28] https://www.hks.harvard.edu/faculty-research/policy-topics/cities-communities/car-economy-costs-64-billion-year-mass

[29] "The Congestion Con: How More Lanes and More Money Equals More Traffic." Transportation for America. (March 2020).

[30] These bills include the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA); the Transportation Equity Act for the 21st Century (TEA–21) in 1998; the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA–LU) in 2005; the SAFETEA–LU Technical Corrections Act in 2008; and various appropriations bills.

HSR, to develop a Marrakech-Agadirk line as the next segment of Moroccan HSR, and as a result, one of these countries will accrue the associated diplomatic gains.[31]

The United States has a long and celebrated history of helping rebuild the economies of former adversaries and creating new allies through financial support and exported industrial expertise. Several of the direct beneficiaries of our rebuilding efforts following World War II became leaders in next-generation transportation technologies before China's game-changing investment. France built the Train à Grande Vitesse (TGV), Siemens' Intercity Express (ICE) high-speed trains criss-cross Germany, and several Japanese railways, led by Japan Central Railway (JRC), inaugurated the high-speed railway age with the Shinkansen system. Many of our allies' train manufacturers, including Siemens, Bombardier, Alstom, Kawasaki, Hitachi, Hyundai, and Stadler, have already made significant investments in plant and equipment in America. Notably, JRC has partnered with Texas Central Railway (TCR) and BWRR to share its Shinkansen and SC maglev systems, respectively, and the Spanish Renfe will operate TCR service. The French National Railway Company (SNCF) led the early push to develop high-speed rail in Texas in the late 1980's and early 1990's, and also invested in later efforts in Florida; they had to turn their attention to other international projects when American leaders scuttled these projects for short-term political goals. In sum, it is free democratic allies who have pioneered high-speed rail technology. Combining that HSR expertise with U.S. adoption and leadership would present a compelling alternative to China's BRI development efforts as we enter a new era of global power competition.

HIGH-SPEED PASSENGER RAIL PROPOSAL

The U.S. could achieve world-class, 21st-century transformative infrastructure by opening up federal funds for HSR development, encouraging matching non-federal dollars for HSR investment, and providing incentives, flexibility, and additional benefits to participating state and local governments. This proposal authorizes the Federal Railroad Administration (FRA) to provide $41 billion annually over 5 years for HSR planning, technology improvements, and development. Even without adjusting for inflation, this investment is less than annual federal expenditures for highways under the FAST Act, but as a significant increase over past HSR appropriations, it allows high-speed passenger rail development to finally compete with other modes in the U.S. Furthermore, the proposal encourages $7.6 billion annually in non-federal investment, which could achieve total investment of $48.6 billion or more annually, and incentivizes state and local government participation through TOD grants along HSR corridors, increased flexibility regarding the non-federal share of HSR planning and development costs, and the benefit of greater funding predictability for projects requiring multi-year federal investments.

This shift in American transportation strategy would meet the demands of the moment and potential of the 21st century, creating new American manufacturing industries, bring millions of jobs to communities across America, and increasing demand and productivity in the private sector, all of which will reduce unemployment and help economic recovery.

Select Highlights

- Establish a long-term framework for HSR so Congress, state and local governments, and the market may invest in HSR planning, technology, and development;
- Authorize $205 billion in HSR over 5 years, a modest sum compared to other modes, with potential investment of $243 billion or more including non-federal matches;
- Standardize the definition of HSR across applicable statutes and produce federal HSR standards and regulations to ensure alignment of HSR development in the U.S.;
- Increase predictability of funding for projects that require multi-year investments;
- Foster a growing national HSR network, including allowing the designation of new corridors, through a strategic, economically-rigorous process;
- Ensure limited infrastructure dollars are invested where they truly achieve the greatest ROI by incorporating externalities into metropolitan, nonmetropolitan, and statewide transportation plans and comparing benefit-cost analyses (BCAs) across modes;

[31] https://www.moroccoworldnews.com/2020/02/294277/high-speed-battle-france-china-fight-to-build-new-train-line-in-morocco/

- Incentivize communities to allow new construction of HSR lines as prioritized recipients for $100 million in FTA TOD grants over five years;
- Create flexibility for state and local governments to pay non-federal shares with RRIF and TIFIA loans or, in some cases, waive the non-federal requirement;
- Eliminate the challenge of previous High-Speed Intercity Passenger Rail (HSIPR) grants being spread too thinly by increasing funding levels to ensure high-speed passenger rail corridors are completed;
- Expedite HSR project planning and development by creating comprehensive, performance-based HSR regulations, not one-off Rules of Particular Applicability;
- Ensure electrification, TOD, and access to moderate income and affordable housing markets are prioritized in HSR development; and
- Incentivize freight railroads to make available existing rights-of-way to develop HSR.

Legislative Outline

I. Reauthorize 49 U.S.C. 26101, 26102, 26106: Reauthorization of HSR Corridor Planning, Technology Improvements, and Corridor Development
II. Amendments to 49 U.S.C. 26101–26106 and add 26107: Changes to HSR Authorities
III. Amendments to 49 U.S.C 5303 and 49 U.S.C. 5304: Incorporating Externalities into Transportation Plans to Improve BCA on Transportation Mode Investments, and Extending FTA's TOD Pilot Program for Transit-Oriented Development Planning
IV. Amendments to 45 U.S.C. 822: Creating Flexibility for RRIF Loans
V. Amendments to 26 U.S.C. 142: Incentivizing Private Investment in Passenger Rail Projects
VI. Amendments to 49 U.S.C. 22905: Clarifying Labor Provisions

Section-by-Section

I. Reauthorize 49 U.S.C. 26101, 26102, 26106: Reauthorization of HSR Corridor Planning, Technology Improvements, and Corridor Development

This would reauthorize Title 49 Chapter 261, High-Speed Rail Assistance. Excluding three sections addressed in the amendments below, this chapter includes High-Speed Rail Corridor Planning (26101), High-Speed Rail Technology Improvements (26102), and High-Speed Rail Corridor Development (26106). The programs are reauthorized by amending and increasing the authorizations of appropriations in Sections 26104 and 26106. (Specific amendments are outlined in the next section.)

- High-Speed Rail Corridor Planning (26101) is reauthorized to treat the backlog of planning activities (e.g. proposed projects without an issued DEIS or FEIS/ROD, HSR corridors without feasibility studies or economic analyses, etc) and to help create a pipeline for future corridor development in the HSR network.
- High-Speed Rail Technology Improvements (26102) is reauthorized to allow DOT and the FRA to improve, adapt, and integrate proven technology for commercial application in HSR service in the U.S. This can be done through financial assistance to private businesses, universities, states, local/regional governments or authorities, or other agencies of the federal government. This will allow the federal government to act as an investment partner in HSR technological improvements.
- High-Speed Rail Corridor Development (26102) is reauthorized to allow the FRA to finance capital projects in HSR corridors. This section includes the grant criteria and requirements for the High Speed Intercity Passenger Rail (HSIPR) grant program. It is through these grants that the bulk of HSR corridor development occurs (i.e. acquisition, construction, improvement, inspection, mitigation, replacement, etc.).

II. Amendments to 49 U.S.C. 26101–26106 and add 26107: Changes to HSR Authorities

26101. High-speed rail corridor planning:

- Allow the Secretary to designate new federal HSR corridors.
- Allow RRIF and TIFIA loans, which would be repaid by private, local, or state sources, to count toward the 20 percent state/local share.
- Remove requirement for 20 percent non-federal source, and allow for project prioritization for projects where at least 20 percent of the costs are funded through non-federal dollars (while still counting RRIF and TIFIA, as above, to count as non-federal dollars)

- Clarify that interstate agreements for HSR corridors do not constitute interstate compacts requiring federal approval.
- Remove Northeast Corridor exclusion.
- Require the Secretary of State to provide a Presidential Permit for Border Crossing to a grantee if the proposed route crosses a national border.
- Authorize advance acquisition of railroad right-of-way (similar to advance acquisition permitted for highway and transit projects) by allowing the Secretary to assist a grantee in acquiring right-of-way before the completion of the environmental reviews for any project that may use the right-of-way if the acquisition is otherwise permitted under federal law, but prohibit rights-of-way acquired under this provision from being developed in anticipation of the project until all required environmental reviews for the project have been completed.

26102. High-speed rail technology improvements

- Emphasize that interoperability is a goal but should not exclude the opportunity for other technologies.

26103. Safety regulations

- The FRA is directed to promulgate comprehensive, performance-based regulations for all HSR projects, which will allow innovation within individual projects and remove the barrier of slow, one-off Rules of Particular Applicability.
- The regulation may be a formalized rule based on previously constructed Rule of Particular Applicability.

26104. Authorization of appropriations: Robust Funding

- Authorization of appropriations for High-Speed Rail Corridor Development are moved from 49 U.S.C. 26106 to this section.
- For five fiscal years after enactment, annual appropriations are authorized at
  - $3 billion for High-Speed Rail Corridor Planning (previously $30 million annually over eight years),
  - $3 billion for High-Speed Rail Technology Improvements (previously $30 million annually over eight years), and
  - $35 billion for High-Speed Rail Corridor Development (highest authorization was $350 million in a year under the previous five year authorization).

26105. Definitions

- Standardize definition of "high-speed rail," which is defined as 125+ mph in this section and 110+ mph in the following section and add a definition of "higher-speed rail":
  - Define "higher-speed rail" as passenger trains operating at top speeds between 110 and 186 mph, and
  - Define "high-speed rail" as passenger trains operating at top speeds of 186 mph or more.

26106. High-speed rail corridor development:

- Allow RRIF and TIFIA loans, which would be repaid by private, local, or state sources, to count toward the 20 percent state/local share.
- Remove requirement for 20 percent non-federal source, and allow for project prioritization for projects where at least 20 percent of the costs are funded through non-federal dollars (while still counting RRIF and TIFIA, as above, to count as non-federal dollars)
- Allow no more than 20% of funds to go toward higher-speed rail development.
- Strike the "regulations" and "appropriations" subsections, which were moved into sections above.
- Add electrification to the existing list of significant improvements to intercity rail passenger service.
- Add TOD and increased access to affordable and moderate income housing alongside "anticipated economic and employment benefits" under factors that lead to greater consideration.
- Clarify that interstate agreements for HSR corridors do not constitute interstate compacts requiring federal approval.
- Prohibit spending timelines for grantees to avoid increased costs to meet artificial timelines.
- Require the Secretary of State to provide a Presidential Permit for Border Crossing to a grantee if the proposed route crosses a national border.
- Authorize advance acquisition of railroad right-of-way (similar to advance acquisition permitted for highway and transit projects) by allowing the Secretary to assist a grantee in acquiring right-of-way before the completion of the environmental reviews for any project that may use the right-of-way if the acquisition is otherwise permitted under federal law.

- Prohibiting rights-of-way acquired under this provision from being developed in anticipation of the project until all required environmental reviews for the project have been completed.
- Permit grants to be used to reimburse grantees for pre-construction expenses incurred prior to award of a grant subsequent to the date of enactment of these amendments, at grantee's risk.

Add Section 26107: Acquiring Freight Railroad Right-of-Way

This new section creates an incentive for freight operators to sell, grant easement on, or lease freight-owned land along existing right-of-way for high-speed rail development. These tracts of land often represent the least costly path for HSR development, but also the least costly path for freight railroad expansion. Given this, and the fact that locating passenger rail service near a freight railroad introduces risk, the following provisions are included regarding freight railroads:

- Freight railroads may sell, grant an easement on, or lease land to a Section 26101 or 26106 grantee with zero federal tax on this revenue.
- Freight railroads that sell, grant an easement on, or lease land shall receive a federal tax credit equal to the amount of revenue from this activity to be applied in a year where the freight railroad purchases a like amount of land along the portion of right-of-way affected.
- Freight railroads that sell, grant easement on, or lease land for high-speed rail development shall be granted the same liability protections granted to freight railroads that host Amtrak services (49 U.S.C. 28103).
- Capital investments or improvements made to freight railroad right-of-way (e.g. turnouts, passing track, signaling, crossings, etc.) by Section 26101 or 26106 grantees shall not be considered taxable income.

III. Amend 49 U.S.C 5303 and 49 U.S.C. 5304: Incorporating Externalities into Transportation Plans to Improve BCA on Transportation Mode Investments, and Extending FTA's TOD Pilot Program for Transit-Oriented Development Planning

Sections 5303 and 5304 provide the definitions and requirements of Metropolitan Transportation Planning and Statewide and Nonmetropolitan Transportation Planning, respectively, to develop long-range transportation plans and transportation improvement programs (TIP) through a performance-driven, outcome-based approach. The planning process already must consider nine different factors. These factors can be amended to include externalities and to require comparisons across these factors among modes of transportation (including requiring State Rail Plans) to capture the true positive societal return on investment. Additional factors should be evaluated, including:

- Value of land use for modes of transportation, which includes value of land dedicated to parking as an opportunity cost for highways;
- Benefit and cost streams and their present value, such as travel time savings, cost or expense savings, safety gains, and productivity gains;
- Outcome benefit measures for cumulative effects over the lifecycle of a transportation system, such as regional land development and economic development; and
- Public health and environmental costs of pollution and emissions.

An additional amendment would extend FTA's Pilot Program for TOD Planning for 5 years and authorize $20 million annually. This pilot program would be amended to include communities where new HSR corridor development occurs among the factors leading to greater consideration.

These amendments are important because 1) states, regions, and localities would be required to consider a more holistic BCA when making transportation planning decisions, 2) these plans and TIPs are required as part of Capital Investment Grant (CIG) applications, which could be used for improving transit systems connected to HSR corridors and potentially invest in projects required for HSR corridor development, and 3) localities would be provided an incentive for allow development of HSR within their communities (e.g. acquiring R-o-W, when curves must be eliminated from existing R-o-W forcing construction in new communities).

IV. Amendments to 45 U.S.C. 822: Creating Flexibility for RRIF Loans:

- Specify that RRIF loans may be used for the non-federal share of a project if the loan is repayable from non-federal funds.
- Allow applicants to use federal funds to pay the credit risk premiums under RRIF loans.
- Authorize Better Utilizing Investments to Leverage Development (BUILD) grant funds to cover the subsidy cost of federal credit assistance under RRIF.

- Require the Secretary to repay the credit risk premium for recipients that have satisfied all obligations attached to RRIF loans.

V. Amendments to 26 U.S.C. 142: Incentivizing Private Investment in Passenger Rail Projects

- Raise the 142(m) Highway or Surface Freight Transfer Facility private activity bonds (PABs) national limitation from $15 billion to $30 billion.

Private HSR developers are more likely to use 142(m) because there is the 142(i) volume cap at the state level for private entities, which leads to competition with other high-priority projects such as affordable housing, but 142(m) has nearly reached its national limit. The ubiquity of grade separation for HSR projects means that the use of Title 23 funds is common, thus qualifying these projects for 142(m), which is preferred for private entities given the state volume caps on 142(i). Because public HSR developers could use either PAB, they are less impacted by this policy change, so this will incentivize more private HSR development.

VI. Amendments to 49 U.S.C. 22905: Clarifying Labor Provisions

- Ensure that all entities that do traditional rail work employing workers in crafts or classes recognized under the Railroad Labor Act (RLA) are deemed carriers for the purposes of RLA and the Railroad Retirement Act (RRRA), with some reasonable exemptions for contractors.

In many cases, only locomotive engineers and conductors are covered under the RLA and RRRA because business models have evolved such that operators no longer do all the work related to passenger rail service, with other companies completing other activities (e.g. maintenance of way, signal, maintenance of equipment). This amendment, which is a negotiated compromise by rail and building trades unions and the Association of American Railroads, aligns protections with Congressional intent.

Project Pipeline

The following table is a non-exhaustive list of passenger rail projects ready for funding identified by APTA in May 2019. The projects included do not amount to full planning and development of all current federally-designated high-speed passenger rail corridors, indicating there is a sufficient supply of projects to justify robust investment. The inclusion of projects that are neither higher-speed nor high-speed rail reveals the need to refocus passenger rail funding in the U.S. to avoid developing lines with 20th-century technology.

Project	Details	Estimate Cost
California High Speed Rail Authority (CAHSR), Valley to San Jose.	Connection between San Jose and Merced, part of the Silicon Valley to Central Valley HSR connection [225 mph, electric, grid separated (GS), FEIS Nov. 2020].	$15 billion
CAHSR, San Jose to San Francisco	Part of Phase I of CAHSR (225 mph, electric, GS, FEIS March 2021).	$2.3 billion
CAHSR, Palmdale to Burbank	Part of Phase I of CAHSR (225 mph, elec., GS, FEIS early 2021).	$17 billion
CAHSR, Burbank to Anaheim	Part of Phase I of CAHSR (225 mph, elec., GS, FEIS June 2021).	$5 billion
Northeast Maglev, DC to Baltimore (DC, MD, PA, NY).	Phase I study area between Washington, D.C. and Baltimore, MD with a stop at BWI Airport. Currently preparing Draft EIS. Will use SCMAGLEV technology. (311 mph, DEIS October 2019).	$10+ billion
High Desert Corridor, Palmdale to Victorville	Essential eventual link to connect XpressWest with CAHSR (150 mph, elec. GS, June 2016 FEIS, Revalidation late 2020).	$1.76 billion
Xpress West (Virgin Trains USA)	Las Vegas to Victorville to achieve eventual connection with Los Angeles covering 185 miles with 20 minute headways (150 mph, elec., GS, April 2011 FEIS, revalidation late 2019).	N/A—privately funded
Brightline (Virgin Trains), Miami to Orlando	Extension of current Brightline service eventually linking Miami-Orlando-Tampa (89 and 125, non-GS, GS DMU, FEIS 2015).	$3.7 billion
Brightline (Virgin Trains), Orlando to Tampa	Extension of current Brightline service eventually linking Miami-Orlando-Tampa. In planning.	

Project	Details	Estimate Cost
Texas Central Railways	Dallas-Brazos Valley-Houston service covering 240 miles with 30 minute headways during peak (225 mph, elec., GS, FEIS expected mid-2020). Privately funded but potential for public partnership for extension (e.g. into Fort Worth).	$18 billion privately funded
Denver to Eagle (CO) Rail	Automated Guideway System over separated ROW on I-70 Mountain Corridor (150 mph, EIS/ROD 2005).	$5.1 billion
Cascadia Ultra-High-Speed Ground Transportation (WA, OR).	Portland-Seattle-Vancouver service (225 mph, elec. GS, pre-NEPA, completed feasibility and business case studies).	$24-42 billion
New Orleans to Mobile Rail	Passenger rail service connecting New Orleans, LA to Mobile, AL. In planning.	
Phoenix to Tuscon Rail	Passenger rail service connecting Arizona's two largest cities. (ROD December 2016).	
Hartford to Springfield Rail	Passenger rail service connecting Hartford, CT and Springfield, MA (89-110 mph, non-GS, DMUs).	$432.6 million
Fort Collins to Pueblo (CO) Rail	173-mile route over existing Class 1 ROW (80 mph). In planning.	
Northeast Corridor Commission	Corridor enhancements for Amtrak's highest volume line (160 mph, elec., GS, ROD July 2017).	$28.9 billion
Richmond to D.C. Rail	Part of Southeast High Speed Rail (SEHSR) Corridor (110 mph, draft tier 2 EIS 2017).	$1.7 billion
New Orleans to Jacksonville Rail	New Orleans-Gulfport-Mobile-Tallahassee-Jacksonville as part of Service Southern Rail Commission. In planning.	
Atlanta to Charlotte Rail	Part of the Atlanta to Charlotte Passenger Rail Corridor Investment Plan (PRCIP), service from Atlanta to Charlotte (110 mph, Tier 1 EIS initiated 2013).	$1.6 billion
Chicago-Iowa City-Omaha Rail (IA, IL, NE)	Chicago-Quad Cities-Iowa City-Des Moines-Council Bluffs/Omaha passenger rail service (79 mph, final Tier 1 EIS May 2013).	$1.2 billion
Chicago-Detroit Rail	Further rehab and increased capacity on existing lines between Detroit and Chicago (89 mph, non-GS, DMUs).	$2.98 billion
Chicago-St. Louis High-Speed Rail	Enhanced service between Chicago and St. Louis, including full build out of second track (89 mph, non-GS, DMUs).	$2 billion
Chicago-Milwaukee-Twin Cities (IL, WI, MN)	Improved passenger rail service between Chicago, Milwaukee, Minneapolis-St.Paul, part of the Midwest Regional Rail Initiative vision, will eventually link to existing Amtrak Hiawatha service (79 mph).	
Baton Rouge-New Orleans Rail	Rail service connecting LA's two largest cities. In planning.	
East-West Passenger Rail Study (MA)	Boston-Worcester-Springfield-Pittsfield corridor, currently conducting initial study of build alternatives.	TBD
Northern Lights Express (NLX Project)	Connect Minneapolis and Duluth on 152 miles of track with 2.5 hour travel time and 3-4 round trips per day (89 mph, non-GS, FONSI February 2018, Tier 2 EA).	$820 million
St. Louis-Kansas City Rail	Capacity improvements between St. Louis and Kansas City.	$0.5–$1 billion
Richmond to Raleigh Rail	Part of SEHSR Corridor (110 mph, Tier 2 EIS 2012).	$240.18 million
NY-Albany-Buffalo-Niagara Falls Rail	Enhanced service on 463-mile corridor between NY, Albany, Buffalo, Niagara Falls (89 mph or 125 mph, DEIS 2014).	$1.66–$14.71 billion
OKC to Fort Worth Rail (OK, TX)	Oklahoma City to Dallas-Fort Worth (79 mph or 250 mph, ROD June 2017).	
Oregon Passenger Rail	Portland-Eugene passenger rail over a 125-mile segment (89 mph, non-GS, DMUs, DEIS October 2018, FEIS).	$1 billion
Keystone Line	Improved passenger service on Keystone line between Philadelphia, Harrisburg, and Pittsburgh (125 mph).	$1.5–$13.1 billion

Article entitled, "Nine key takeaways from the Globe's 'Blind Spot' investigation," by Matt Rocheleau, Vernal Coleman, Evan Allen, Laura Crimaldi, and Brendan McCarthy, Boston Globe, updated August 25, 2020, Submitted for the Record by Hon. Seth Moulton

NINE KEY TAKEAWAYS FROM THE GLOBE'S "BLIND SPOT" INVESTIGATION

by Matt Rocheleau, Vernal Coleman, Evan Allen, Laura Crimaldi, and Brendan McCarthy

Boston Globe, updated August 25, 2020

Lane Turner/Globe Staff

For nearly a year, Globe reporters scoured crash data and records and found that menacing drivers across the country are escaping scrutiny—and remaining on the road—due to bureaucratic neglect. These failures have been deadly.

The Globe's "Blind Spot" investigation examines the hidden dangers on America's roads and found glaring problems with how drivers are licensed and how the trucking industry is regulated.

Here are some of the key takeaways from the Globe's reporting.

1. There's no system to effectively track driving offenses between states

Despite nearly 50 years of warnings by federal road safety officials, the United States still has no effective national system to keep tabs on drivers who commit serious offenses in another state. Enforcement relies on state agencies to do their job, which they often don't. It is a gap that puts everyone at risk every time we take to the road.

2. This has had lethal consequences

One example of this was on display last summer when seven motorcyclists were killed in New Hampshire crash. Volodymyr Zhukovskyy, a 24-year-old truck driver with an atrocious record, allegedly crossed the center line and crashed into the motorcyclists. His driver's license should have been suspended at the time of the crash but remained valid due to lapses at the Massachusetts Registry of Motor Vehicles.

The Globe identified seven other people killed in recent years by drivers with past violations that should have kept them off the road. There are unquestionably many more, but restrictive state rules on driver data make compiling a true tally almost impossible.

3. The scope of the problem is massive

A major company that collects and analyzes bulk driver data told the Globe it estimates more than one in 10 drivers across the nation has at least one offense—ranging from speeding to vehicular homicide—that isn't reflected on the official record. Another data collection company reported a similar trend.

In a nation of 227 million licensed drivers, that would add up to more than 22 million unaccounted-for offenders, among them, almost certainly, thousands, perhaps millions, who should have lost their licenses, temporarily or permanently.

4. Sloppy recordkeeping, outdated communication, and neglect are to blame

The United States counts on 50 state registries, plus the District of Columbia, to police themselves and alert others when an out-of-state driver breaks the law.

Often, the Globe found, states fail in this duty: Some neglect to send warnings about dangerous drivers; some receive notices but don't bother to read and record them.

And, even in this era of instant communication, agencies nationwide still rely on mailing paper documents to directly notify each other about infractions by out-of-state passenger drivers—a slow, labor intensive process that is prone to administrative failures.

Seven states—including California, Arizona, New Hampshire, and Rhode Island—have for years sent no direct mail notices at all, making them islands of irresponsibility in the world of highway safety.

5. There are major gaps in oversight of the increasingly deadly trucking industry

After more than a decade of declines, the frequency of fatal crashes involving trucks shot up by 41 percent between 2009 and 2017. In 2017, the last year for which complete statistics are available, 4,761 people died in crashes involving large trucks on American roads. That's one person every two hours. That's a Boeing 737 plane crash every two weeks.

And violations among trucking companies are common. Recent research commissioned by trucking companies themselves suggests that 300,000 undetected drug users are currently piloting trucks.

6. Many trucks are poorly maintained to the point of peril

Federal statistics show that, on average, one in five of the more than 4 million trucks regulated by the FMCSA is in such disrepair that if it were stopped by safety inspectors, it would immediately be taken out of service.

Yet, the federal agency responsible for protecting American drivers from dangerous truckers, the Federal Motor Carrier Safety Administration, has allowed whole swaths of the industry—most strikingly, small upstart companies—to operate with minimal or no oversight, the Globe found.

7. How did it get this way?

The FMCSA simply lacks the firepower to wrangle a sprawling industry with a fierce independent streak, which some safety advocates liken to the Wild West.

The agency employs only about 1,200 people to oversee a sector with half a million companies that is growing by more than 30,000 businesses every year. The agency has no centralized way to check the backgrounds of drivers, and drug testing requirements are inadequate.

Compliance with many of the agency's requirements is increasingly monitored remotely, often with paperwork that companies simply send in, with little verification or first-hand observation.

The FMCSA does get information from traffic stops by police and unannounced roadside inspections conducted by state regulators. But that provides a haphazard picture at best: More than a million of the 4.6 million commercial vehicles the FMCSA regulated in 2018, for example, were not stopped once through the entire year, according to federal statistics.

8. The problems are most glaring with fledgling companies

New trucking companies are required by the FMCSA to file reams of paperwork before they can open up shop, promising that they understand and will comply with regulations, but no one from the agency makes them prove it.

No one checks whether they're telling the truth about their background. There's no vehicle inspection, test, or in-person safety audit before a new company is allowed to put vehicles 20 times the size of passenger cars out on the highway.

This means that companies operate unproven during their early, formative months in business, the very time when they are most in need of oversight. Federal statistics from 2015 show that new companies have a crash rate almost 60 percent higher than established ones.

9. Attempts to bolster trucking oversight have also fallen short

The National Transportation Safety Board sees itself as "the conscience and the compass of the transportation industry," but it doesn't regulate the industry. Since 1971, the federal agency has been issuing and reissuing the same plaintive warning: The regulatory system that is supposed to keep trucking safe is full of loopholes that cost lives.

In 2020, the Department of Transportation spent 25 times more overseeing aviation than trucking, reflecting, in part, the headline-grabbing nature of plane crashes that make air safety a national focus. By contrast, trucking disasters that kill two or four or six at a time rarely capture the nation's attention, and there is little public pressure for change.

Requests for Information During Hearing, and Responses from Caren Kraska, President and Chairman, Arkansas and Missouri Railroad, on behalf of the American Short Line and Regional Railroad Association

REQUESTS FOR INFORMATION FROM HON. RANDY K. WEBER, SR.

Request 1. Is it determinable what percentage of short line railroad employees were put on hold or lost their jobs as a result of the COVID pandemic as compared with the major railroads?

RESPONSE. In general, very few short line railroad employees were furloughed or laid off during the pandemic. Short lines have always run pretty lean operations, and even though the disruptions at the beginning of the pandemic were quite severe, it quickly became apparent to many short lines that business would largely come back relatively soon, so most of us avoided lay-offs. Additionally many of our operating and maintenance work is done out of doors where social distancing was easier. For short lines, our businesses oftentimes are—and feel like—family-run businesses, and we strive to maintain excellent relationships with our employees and shippers and communities. Now that we're a year into the pandemic, I can tell you that at least with my short line, I'm looking to hire more people! Going forward, short lines have an opportunity to thrive and grow and continue to be a good source of jobs in small towns and rural America and support our shippers and their job creation too. As I indicated especially in my written testimony, Congress can help in the following ways:

i. CRISI: Increase the overall size of the CRISI grant program and ensure that short lines can continue to compete by not having big new set-asides within CRISI for projects/applicants that don't include short lines (commuter, mega-projects, etc).
ii. No truck size and weight increases, which would shift traffic away from rail—the safest and most environmentally friendly form of surface transportation—and onto the highway, which as I noted would do irreparable harm to my business. Indeed, for many short lines that harm would result in a loss of jobs.
iii. Other grant programs: Ensure short line railroad projects can access funding through programs like INFRA, BUILD, and any new transportation grant programs targeting emissions and congestion reduction by including freight rail project eligibility and maintaining rural and small project participation.
iv. No Crew Size Mandate: There is no safety need or benefit for a mandate, and even though most of our trains use two person crews now this would impede development and adoption of new safety technologies and hamper our ability to compete in the future. Short lines seek to use the right crew size for the type of work they do.
v. On the environmental side, we think the most meaningful way to reduce emissions is to institute policies that help move freight off of the highway onto rail (the above ones, plus turning the Highway Trust Fund back into more of a user-pay system), but as far as railroads themselves getting even cleaner, we'd be supportive of expanding and improving the Diesel Emissions Reduction Act (DERA) program and also of increased FRA R&D funding to support R&D on even-cleaner locomotives.

Request 2. Was there a time when short line railroads were not available for the major railroads, and there was a freight hold up? Any facts or figures on that?

RESPONSE. No, we are not aware of any situations where short lines were not available. While we did have many customers that were dramatically shifting what, how much, and where they shipped, short lines worked hard to be available for our shippers and to customize service to them as needed. We pride ourselves on oper-

ating 24 hours a day, seven days a week, 365 days a year, providing critical transportation for America's agricultural, energy, manufacturing and other businesses, and that has never been more true than during the pandemic where the industry was critical to our national commerce. That being said, the short line business is a tough business with some major challenges, and we would welcome Congress's assistance on various fronts that I mentioned especially in my written testimony including the CRISI program, as well as INFRA or PNRS and the National Freight Network, and programs such as DERA and R&D programs at the FRA. Additionally, as I noted in my written comments, I urge the Committee to avoid any increases to Truck Sizes and Weights limits.

Request 3. Have the HVAC or air systems of the locomotives, train systems, or office systems been redesigned because of the pandemic?

RESPONSE. We installed germicidal UV purification filtration systems in five of our business cars as well as in our depot. In the Main office and Agency, we installed four units of I-wave induction air cleaners. Obviously, these did have a cost impact.

REQUEST FOR INFORMATION FROM HON. TIM BURCHETT

Request 4. What unique challenges do short lines face, and how can Congress help improve operational flexibility for those small businesses? How can we get off your back and make your life a little easier? Could you name me a couple of those (regulations)? I know, I've kind of put you on the spot. Just a couple maybe we could address at some point.

RESPONSE. To begin with, the industry has a couple of pending deregulatory efforts that we support. One is the Electronic Air Brake Slip System (eABS) rulemaking effort, which proposes to revise 49 CFR Part 232, addressing the use of electronic airbrake slips to track mechanical inspections and freight car mileage. This proposed rule will modernize and improve FRA's existing air brake inspection regulations and to implement certain proposals in AAR's 2019 petition for rulemaking on the same topic. The NPRM proposals would not only increase the efficiency of railroad operations, but would advance railroad safety, reduce injury exposure to railroad employees, and result in significant climate, economic, and other societal benefits.

Another is the 24 Hours Off Air regulatory change from late 2020. This was a good, data-driven FRA regulatory change that will reduce carbon emissions without compromising safety. The final rule, "Miscellaneous Amendments to Brake System Safety Standards and Codification of Waivers," permits rail cars that have been "off-air" for up to 24 hours, or up to 48 hours if FRA is notified, to operate without receiving a brake test based solely on time off-air. The reflects advancements in air brake technology over the decades, harmonizes U.S. and Canadian operations, and reduces compliance costs and increase efficiency for the industry without any adverse impact on safety. Additionally, the rule is projected to eliminated 92,500 hours of locomotive idling per year, resulting in a reduction of 3,600 tons of CO2 emissions annually. Unfortunately, two labor unions have filed a lawsuit against FRA on the rule. The rail industry aims to be a partner in finding environmentally-friendly solutions, and we would hate to see the benefits of this rule get set aside. We understand the FRA is considering its options regarding defending the rule and responding to the labor lawsuit at the moment.

Regulations that are unnecessary and should be dropped include the 49 CFR Part 243 Minimum Safety Training Standards. This is a set of regulations that sit on top of all the existing regulations. In other words, this is a regulation that mandates how railroads should train employees to meet already existing regulations. It's been unnecessary from the very beginning although we acknowledge FRA was required to implement some rule in the wake of provisions set forth in the 2008 Railroad Safety Improvement Act (Public Law 110–432). We would welcome revision or elimination of this unnecessary requirement the next surface transportation bill.

As a general proposition some of the most damaging regulations for short lines are those that are characterized by "one size fits all." Short line operations are far different from Class I operations. We run shorter trains, for shorter distances, and at slower speeds. These differences need to be taken into account by those regulating the industry.

REQUEST FOR INFORMATION FROM HON. DUSTY JOHNSON

Request 5. I thought you did a really good job, particularly in the attachment to your testimony, walking through the incredible benefits of the 45G tax benefit, how it has increased safety, improved investment. I also that your testimony did a good

job walking through specific improvements that could be made to the INFRA program to make it more usable for short lines.

With regard to 45G, the short-line rail tax credit, is there anything Congress should be looking at to make that even more effective for you all?

RESPONSE. The investment tax credit for the short line railroads under Section 45G of the Internal Revenue Code achieved permanency under law with the passage of the 2020 Continuing Appropriations Act (CAA) (PL 116–260). Because it had previously been periodically renewed under various tax extenders enactments, the implementation date where eligibility is restricted to those short line railroads in existence as of 2015 was a carryover from previous years' bills. The American Short Line & Regional Railroad Administration is currently measuring the number of short line railroad miles added through purchases and leases since 2015 that are not eligible for the $3,500 tax credit for per mile. Making the implementation date current to 2021 and then periodically updating it to enable additional eligibility would aid short line railroads in their investment and capital expenditure certainty, which aids industries needing transportation access, contractors, and consumers across the country. While we don't want to be greedy, and we primarily want to convey sincere appreciation for the existence of the credit, I would note since you asked that the need for track rehabilitation far exceeds the amount supported by the credit. An increase from $3,500 per mile either through a one-time step increase or indexing to inflation would be a very welcome improvement and a very efficient way to provide tax efficacy and support short lines in South Dakota and all over the country.

APPENDIX

QUESTIONS FROM HON. DONALD M. PAYNE, JR. TO SHANNON VALENTINE, SECRETARY OF TRANSPORTATION, COMMONWEALTH OF VIRGINIA

Question 1. Can you tell us why you see rail as such a great investment for Virginia, and whether you think that passenger rail will help address equity in transportation?

ANSWER. Virginia's multimodal vision for transportation seeks optimal solutions through corridor planning studies, analysis of all modes of transport and innovative options. At the heart of this work is a balance between benefits and costs, with a focus on identifying the "right" solution. As I mentioned during your subcommittee meeting, the I–95 corridor is heavily congested. Virginia's I–95 analysis found that widening the highway by one lane in each direction for 50 miles would cost $12.5 billion and that, by the time that additional capacity was built in ten years, the corridor would be just as congested as it is today. This proposed solution was both unaffordable and ineffective. Virginia therefore chose to pursue rail and partner with CSX, Amtrak, and VRE to provide the additional capacity in the corridor for $3.7 billion—a third of the cost.

Passenger and commuter rail service also allows us to develop a multimodal system that is more equitable and more inclusive. While current transportation infrastructure is predominantly car-dependent, the cost of car ownership—more than $9,000 per year according to AAA (including insurance, fuel, and maintenance), not to mention parking in large cities—is not affordable, desirable, or even possible for many citizens.

Transforming Rail in Virginia also contemplates issues of equity such as increased access to jobs and improvement in quality of life for all. The new service plan for Amtrak and VRE includes late-night and weekend service for an important reason. We know that many jobs—especially in the service sectors—are not 9 to 5, Monday through Friday. That is why we worked with CSX, Amtrak, and VRE to add trains leaving Washington in the late evening as well as on the weekends. We needed to match train schedules to the reality of our 21st-Century economy. The added train service to Richmond and Hampton Roads also creates a more connected Commonwealth by offering multiple safe and reliable transportation alternatives.

Finally, because the Commonwealth is an owner and partner in the rail corridor, we have the opportunity to explore pricing options to maximize ridership and accessibility for all people.

QUESTIONS FROM HON. SETH MOULTON TO SHANNON VALENTINE, SECRETARY OF TRANSPORTATION, COMMONWEALTH OF VIRGINIA

Question 2. In the last 20 years, housing prices have increased by 9.4 percent, or as much as 28.3 to 79.3 percent in major cities, and the highest-paying jobs are increasingly located in our most expensive cities. This creates inequities in housing and employment opportunities, where the best wages are inaccessible to workers in more affordable communities without spending hours on our congested highways. China inaugurated its first high-speed rail line in 2008 and now has the largest national network in the world. As a result, regional economic disparity decreased by 25.7 percent through increased access to economic opportunities. The federally-designated Southeast High-Speed Rail Corridor includes Raleigh-Richmond-Washington, D.C.

With the proper Federal support and framework, what role could fast, frequent, and reliable high-speed rail service play in connecting Virginians to affordable housing markets and economic opportunities across this corridor?

ANSWER. Faster, frequent, and reliable passenger rail service can be a lifeline for our workforce—creating access to more affordable communities, delivering a more predictable travel option, and opening opportunities beyond the boundaries of large

urban centers. In many circumstances, dependable rail service enhances quality of life by giving people back the hours previously spent in congestion. Every year in Virginia, vehicle travelers experience 230 million hours of delays, resulting in $6.5 billion in annual congestion costs.

The statistics you quote explain why businesses are also so supportive of expanded rail service, as they are acutely aware of the importance of affordable travel options in attracting and retaining the best, brightest and most diverse workforce.

In Virginia, addressing this need means connecting residents of small- and medium-sized towns and cities—where housing can be more affordable—to Washington, DC, and the Northeast Corridor or to points south such as Raleigh and Charlotte, NC. For example, along the I–95/I–64 Corridor, rail connects communities such as Norfolk, Newport News, Richmond, Fredericksburg and Alexandria; the route along the I–29/I–81 Corridor includes Roanoke, Lynchburg, Charlottesville, Culpepper and Manassas. Intercity bus service is also an integral part of this multimodal network, especially important for connecting rural communities to centers of commerce.

Question 3. High-speed rail also stimulates economic growth around stations, builds walkable communities, and can be a tool for equitable transit-oriented development. By comparison, the legacy of many of our highway projects is the disruption of communities, often low-income communities and communities of color.

What types of policies at the Federal and state level can support such growth around high-speed and intercity passenger rail corridors and stations?

ANSWER. As you have noted, rail projects such as the program of projects in Virginia that will double passenger rail service and expand commuter rail by 60 percent along the I–95 Corridor will help to stimulate economic development and housing in the vicinity of rail stations—leading to livable, walkable, pedestrian-friendly communities not dependent on cars for transportation. As investments are made, we want to be deliberative about creating economic opportunity for all people.

The Federal government can support this development by linking funding to equitable economic development policies, ensuring a connection between the local, regional and state governments on land use strategies—a critical factor in the success of multimodal networks—supporting equitable access.

One of the obstacles to expanding intercity passenger rail service in the United States is that rail has been undercapitalized for many years. Predictable, multi-year Federal grants for passenger rail projects or a program of projects would significantly encourage and support state investments in rail enhancement and expansion. This kind of sustainable Federal funding would be transformative for intercity passenger rail that connects communities across the nation via a national rail network.

Question 4. The transportation sector is the leading driver of greenhouse gas emissions in the U.S. at 28 percent. High-speed accrues greater environmental gains than other modes due to lower emissions, more efficient land use, and ridership capture from highways and aviation. Like plans for the Southeast High-Speed Rail Corridor, there are contiguous city pairs across the country that would support such service.

Can you speak to the potential environmental benefits of your current passenger rail projects, and how would you expect developing the Southeast High-Speed Rail Corridor to impact the environmental benefits that passenger rail can bring to Virginia? Considering the Texas Central project alone is forecasted to reduce emissions by 4.5 million tons, do you believe any other mode has as much potential to drastically reduce emissions in intercity travel?

ANSWER. Rail has the potential to drastically reduce emissions from intercity travel. As we create infrastructure for passenger, commuter and freight rail, we also are moving more goods and more people in an environmentally sustainable way. According to the American Public Transportation Association (APTA), rail travel emits up to 83 percent fewer greenhouse gases than driving and up to 73 percent fewer than flying. The Long Bridge Environmental Impact Statement estimated that CSX would expand its freight service in this corridor from 18 trains per day now to 42 in 2040. For a company that moves one ton of freight 508 miles on a single gallon of fuel, this provides four times the fuel savings and environmental benefits than moving freight on our highways.

The total truck Vehicle Miles Traveled—VMT—reduced by the Long Bridge project alone in the fifth year after construction is 482 million. VMT reduced for cars is 332 million in that fifth year. This results in a reduction of the consumption of 66 million gallons of diesel fuel and 10 million gallons of gas in that year.

A cost-benefit analysis developed by Kimley-Horn reveals that in that fifth year, the Commonwealth would experience environmental benefits in terms of:

- 474,000 metric tons of carbon dioxide emissions avoided due to moving freight by rail, and
- 90,000 metric tons of carbon dioxide emissions avoided due to passenger rail trips added,
- for a total value of avoided carbon emissions of 564,000 metric tons.

These are not cumulative statistics, but simply represent the environmental benefit in a single year.

From FY 2010–2019, Virginia's regional trains handled a total of 1.57 billion passenger miles, prevented the burning of 33.2 million gallons of fuel, and avoided the release of 295,000 metric tons of CO2 emissions.

Question 5. You shared information about the multimodal analysis you conducted in determining a path forward for Virginia. That truly makes your approach unique when we are seeking efficiency and volume solutions in our people and freight transportation networks.

Can you share more details to help us understand how the current system in the United States and in states is stacked against doing this type of multimodal analysis, and how might the Federal Government help address any barriers to support state DOTs to do the work you have done in Virginia?

ANSWER. Virginia conducts Corridor Planning Studies along major networks to identify the smartest transportation solutions. Without predetermining the outcome, we look across a mix of transportation improvements with this question in mind: How do we move the most people and goods in the most effective way, balancing those improvements with available funding as well as neighborhood and community concerns? As a result, this work has generated multimodal solutions including rail, transit, transportation demand management techniques, multi-use trails, highway infrastructure and operational improvements—and often a combination of solutions all working together.

From the Federal perspective, may I offer the following:

- While highways and transit have designated, predictable, multi-year funding opportunities, passenger and commuter rail do not. Establishing this opportunity would encourage state investments to leverage funding and provide for more significant improvements and enhancement of rail systems.
- Formula funding that is limited only to the planning and construction of one particular mode of transportation is important. However, it can also limit innovative, multimodal solutions. Introducing discretionary funding options that support multimodal solutions would not only open states to more than one transportation solution, it would strengthen collaboration and a more seamless transportation network—again, with all modes working together.
- More specifically for rail, policies that support passenger, commuter and freight rail would promote more state rail investment. For example, *Transforming Rail in Virginia* is based on improving passenger, commuter (transit) and freight rail. This initiative does not fit into any one category. Developing opportunities that benefit all types of rail service would create a collaborative versus competitive environment for working with Class 1 railroads, Amtrak and commuter rail services to establish solutions that are viable for rail transportation. This collaboration would allow the focus to be on customer service and the reliability and performance of the nation's rail network.

QUESTION FROM HON. SCOTT PERRY TO SHANNON VALENTINE, SECRETARY OF TRANSPORTATION, COMMONWEALTH OF VIRGINIA

Question 6. In your testimony, you highlight the following statistic that you shared at the 10-year anniversary of the inauguration of the first state-supported Amtrak route in Lynchburg, Virginia:

> "In 2009, [passenger] rail reached 49 percent of Virginians and 53 percent of jobs. Today, rail reaches 77 percent of Virginians and 88 percent of jobs. In other words . . . not enough."

There are a couple of issues with this statement that have important implications for the economic and environmental sustainability of passenger rail. The use of rail connectivity rather than the percentage of passenger travel and commute travel creates a misleading statistic that incentivizes the buildout of rail service without regard to actual ridership or the preferences of Virginia travelers.

A significant portion of the increases in population and jobs connected is a reflection of the outsized population and job growth in areas previously serviced by rail lines—particularly, the DC metro area accounting for around 40 percent of population and jobs—as well as two-thirds of population growth since 2010.

Moreover, in 2019, 88 percent of Virginians drove to work—76.7 drive alone and 9.1 carpool—compared to 4 percent of Virginia commuters that used all forms of public transportation. In fact, public transportation's percentage of commuters has actually dropped from 2009–2019—a pre-pandemic trend that call into question a post-COVID recovery.

The buildout of additional rail lines to areas without the population density to support ridership and increasing service beyond the demand does not yield environmental or economic benefits. Funding politician-preferred modes of transportation rather than consumer-preferred modes creates a misallocation of resources that creates congestion problems along our roadways. This increases vehicle emissions on top of the emissions produced by inefficient passenger trains that remain unfilled. The increased congestion is then used to justify additional spending on inefficient passenger modes—like the study of the I–95 corridor you cited in your testimony. The negative effect of these facts on the economy and the environment are concerning. Given these concerns, V–DOT's support of a new passenger rail grant program is concerning.

Can you please explain why Federal taxpayers should allocate even more resources to VA State-supported routes when it's clear they don't reflect Virginia traveler preferences?

ANSWER. In my testimony I stated, "... in other words—not enough." This statement was intentional. The referenced statistics do not reflect the demand for rail nor the accessibility of rail to all people.

In 2019, Virginia Rail Express (VRE) was averaging more than 19,000 trips a day, and Amtrak carried nearly 1 million riders on our state-supported routes—a 680 percent increase since the inception of this Virginia-supported Amtrak service in 2009. For the first five months of FY 2020 (October 2019–February 2020), monthly ridership on Virginia's Amtrak regional trains averaged 14 percent higher—approximately 10,000 more passengers per month—than the same months in FY 2019. In fact, with 68,337 riders in January 2020—a 21 percent growth over the previous January's numbers—it was the best January for ridership.

Virginia's most profitable rail line—and one that carries the train with the highest ridership—is along the 29 Corridor originating in Roanoke and connecting through Lynchburg. This route is one of the most profitable Amtrak routes in the nation.

As we emerge from the pandemic, Virginia-supported trains are experiencing ridership of 30–50% pre-pandemic numbers and growing, with the Roanoke train leading the way. Traffic on Virginia's highways is increasing as well and has already reached 85–90% of pre-pandemic levels—with I–95 already at 90 percent.

The population of Virginia is expected to grow from 8.5 million to 10 million over the next 25 years, with 20 percent growth expected in Northern Virginia. For I–95, with some of the worst congestion in the country, multimodal options are critically important. Increased passenger rail service will help meet the growing demand not only in Virginia, but throughout the East Coast as an alternative to traveling the heavily congested I–95 corridor.

However, due to the capacity constraints posed by the two-track Long Bridge, we are not able to address this congestion and offer rail as an alternative. What makes this even more significant is a recent Greater Washington Partnership survey indicating that, while 58 percent of the region's employers have implemented full-time telework, only one percent expect their employees to continue to work remotely full time once we emerge from the pandemic.

The Long Bridge is a critical piece of infrastructure with national significance. The construction of a new Long Bridge across the Potomac dedicated to passenger and commuter rail will support the economic vitality of the nation by significantly expanding rail capacity and providing critical network redundancy to support and enhance passenger rail—as well as multimodal freight movement along the east coast and to the Midwest. This bridge will also connect workers to key employment centers. It is a vital link connecting the Northeast and Southeast corridors.

The project will bolster performance of the freight network by unlocking much needed capacity on the existing, CSX-owned bridge, that is currently at 98% capacity during peak periods. The next closest rail bridge is 70 miles away (as the crow flies) in Harpers Ferry, West Virginia. Any prolonged shutdown of the bridge would have ripple effects on the economies of states up and down the East Coast, and have national security implications as well. The expansion will also improve network performance by separating freight and passenger rail, while relieving gridlock across the mid-Atlantic. Without additional capacity, freight trains will experience ten times the current delay by 2040.

Rail will play an important role to ensure economic growth continues not just in Virginia, but globally, as the Port of Virginia is an international gateway for the

mid-Atlantic region. The Port of Virginia handles 4 million containers annually from all around the world. Currently, the Port moves a greater percentage of its containers by rail—35 percent—than any other port along the East Coast, with a goal of increasing that movement to 40 percent. In short, expansion of rail is vital to America's future economic success.

QUESTION FROM HON. SETH MOULTON TO GREG REGAN, PRESIDENT, TRANSPORTATION TRADES DEPARTMENT, AFL–CIO

Question 1. Countries like Morocco and oil-rich Saudi Arabia have inaugurated electrified high-speed rail, while the U.S. still has zero operating lines despite designating Federal high-speed rail corridors decades ago. I introduced the American High-Speed Rail Act to plan and develop those corridors. It is estimated to create 2.6 million jobs, not just on the coasts and in major cities but across congressional districts as you correctly note, while transforming our economy in the long-term through various economic and environmental benefits.

What would the Federal Government's recommitting to building high-speed rail corridors mean for jobs and workers, such as those you represent, and would you support such an effort in a major jobs and infrastructure package or surface transportation reauthorization bill?

ANSWER. The development of high-speed rail promises to connect communities more efficiently and drive new economic development within them. It will also create thousands of good union jobs in construction and manufacturing as well as jobs operating and maintaining these railroads. We strongly support efforts to provide funding for high-speed rail projects in a surface transportation reauthorization and/or in an infrastructure package, and call for these funds to be conditioned on the labor protections and procurement requirements that have for decades ensured federally funded rail projects create good jobs.

QUESTION FROM HON. SCOTT PERRY TO GREG REGAN, PRESIDENT, TRANSPORTATION TRADES DEPARTMENT, AFL–CIO

Question 2. In your testimony, you highlight the buildout of entire new rail systems like "California High-Speed Rail or the Texas Central Railway" as an opportunity for construction sector job growth creating the infrastructure of the future.

Since its inception, the California High-Speed Rail project has been the poster-child for waste—the estimated cost of the original project by the time of completion was $100 billion.

This isn't just my take on the project—Governor Newsom stated, "Let's be real. The current project, as planned, would cost too much and take too long" as he proposed to massively scale back the project.

Likewise, the Texas Central Railway cost has gone from $10 billion to $30 billion and the company has flip-flopped on promises not to take taxpayer funds.

Can you please explain why taxpayers should be on the hook for even more of these boondoggle high-speed rail projects?

ANSWER. As stated in our testimony, it is our firm belief that bold investments in transformational infrastructure like high-speed rail networks are imperative for economic growth and global competitiveness. According to APTA, every $1 invested in high-high speed rail creates $4 in economic benefits and additional studies have pointed to further economic, social and environmental benefits.

While it is true that some of the first high-speed rail projects in the nation have experienced higher than projected costs, this cannot be used as justification for failing to develop the future of passenger rail and accepting aging, crumbling infrastructure. When Congress embarked on the extraordinarily ambitious effort to build our interstate system through the Federal-Aid Highway Act of 1956, Congress projected that the effort would cost $27 billion, based on a report from the U.S. Bureau of Public Roads. In actuality, Congress ultimately authorized $119 billion over several decades for interstate projects. Despite the "overrun" it would be difficult to argue that taxpayers have been unduly harmed by the program, or that the massive economic benefits reaped by connecting our cities and towns did not justify the cost. We are certainly supportive of responsible stewardship of taxpayer funds, but creating artificial fiscal constraints that guarantee our infrastructure is stranded in status quo is not the way forward.

QUESTIONS FROM HON. GREG STANTON TO TOM G. WILLIAMS, GROUP VICE PRESIDENT, CONSUMER PRODUCTS, BNSF RAILWAY COMPANY

Question 1. Will BNSF commit to expediting the approval of the necessary work in Flagstaff, Arizona, to allow the Federal Rio de Flag Flood Control Project to advance?

ANSWER. BNSF strives to be a good neighbor to the communities through which the railroad operates and has been coordinating with the City of Flagstaff (City) and the U.S. Army Corps of Engineers(Corps) in support of the Rio de Flag Flood Control project since receiving technical details about the effort in October 2018.

Safety is always BNSF's top priority and major train operations in proximity to heavy earthwork construction introduces significant risk requiring careful up front evaluation and planning along with constant monitoring of work to avoid the potential for a catastrophic incident.

In addition to important safety considerations, the location of the flood control project on BNSF's Southern Transcon route—a critical transportation corridor and heavily used artery for rail freight and passenger trains moving between Los Angeles and Chicago—requires collaboration among all stakeholders to ensure the movement of trains is not interrupted.

BNSF is focused on assisting project stakeholders on the best options to expedite construction of the project and avoid potential future unintended consequences and costly delays.

Question 2. Based on the benefits to rail safety, operations, and flood mitigation BNSF will receive from the Rio de Flag Flood Control Project and the local Flagstaff projects, will BNSF work with me and the City of Flagstaff to evaluate options for reducing the mitigation costs associated with these projects?

ANSWER. BNSF has demonstrated a commitment to cooperation and partnership with the City on this project through regular meetings and communications along with undertaking at the railroad's expense a $100,000 engineering analysis to understand how proposed and future anticipated public agency projects interact in this corridor.

We believe this approach is helping all parties make informed decisions regarding project development to ensure safety and minimize costs and operational impact to our respective transportation systems.

The effort to understand planned and future infrastructure initiatives in Flagstaff has already benefited stakeholders as a new project in the immediate area was recently introduced into the discussion. While adding an element of complexity that impacts our railroad, we believe a path forward can be established that accomplishes both projects while maintaining safe and reliable train operations.

BNSF appreciates the partnership and communication between all participants during this process and believes that collective objectives can be accomplished and unnecessary costs mitigated by continuing to work together to determine an effective plan to implement the project.

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