TESTIMONY OF

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BEFORE THE

UNITED STATES HOUSE OF REPRESENTATIVES

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

SUBCOMMITTEE ON RAILROADS, PIPELINES, AND HAZARDOUS MATERIALS

AND

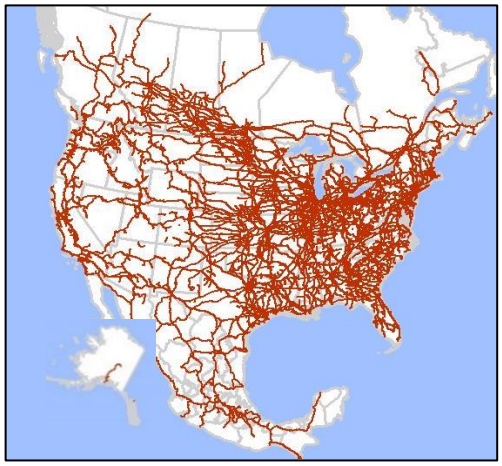
SUBCOMMITTEE ON HIGHWAYS AND TRANSIT

HEARING ON
"WHERE'S MY STUFF? EXAMINING THE ECONOMIC, ENVIRONMENTAL, AND SOCIETAL IMPACTS OF FREIGHT TRANSPORTATION"

DECEMBER 5, 2019

On behalf of the members of the Association of American Railroads, thank you for the opportunity to appear before you today. AAR members account for the vast majority of freight railroad mileage, employees, and traffic in Canada, Mexico, and the United States.

Simply put, railroads are indispensable to the U.S. economy. They connect producers and consumers across the country and the world, expanding existing markets and opening new ones. Whenever Americans grow something, mine something, or make something; when they send goods overseas or import them from abroad; when they eat their meals or take a drive in the country, there's an excellent chance that railroads helped make it possible.



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. Average rail rates (measured by inflation-adjusted revenue per ton-mile) were 44 percent lower in 2018 than in 1981. This means the average rail shipper can move close to twice as much freight for around the same price it paid more than 35 years ago.

Several years ago, the American Association of State Highway and Transportation Officials (AASHTO) estimated that if all freight rail traffic were shifted to trucks, rail customers would have to pay an additional $69 billion per year. Adjusted for increased freight volume and inflation, it's probably close to $100 billion today

An October 2018 study from Towson University's Regional Economic Studies Institute found that, in 2017 alone, the operations and capital investment of America's major freight railroads supported approximately 1.1 million jobs (nearly eight jobs for every railroad job),

$219 billion in economic output, and $71 billion in wages. Railroads also generated nearly $26 billion in tax revenues. In addition, millions of Americans work in industries that are more competitive in the tough global economy thanks to the affordability and productivity of America's freight railroads.

Without railroads, American firms and consumers would be unable to participate in the global economy anywhere near as fully as they do today. 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.

Sustainability

According to the Environmental Protection Agency (EPA), transportation accounted for 28.4 percent of U.S. greenhouse gas emissions in 2017. The vast majority of transportation-related greenhouse gas emissions are directly related to fossil fuel consumption: higher fuel consumption means more emissions.

Railroads, though, are the most fuel-efficient way to move freight over land. In 2018, railroads moved one ton of freight an average of 473 miles per gallon of fuel — roughly the distance from Coos Bay, Oregon to San Francisco, or from Hannibal, Missouri to Columbus, Ohio. In fact, freight railroads, on average, are three to four times more fuel efficient than trucks — meaning that moving freight by rail instead of truck reduces greenhouse gas emissions by up to 75 percent. The rail fuel efficiency advantage helps explain why freight railroads account for just 2.0 percent of transportation-related greenhouse gas emissions and just 0.6 percent of total U.S. greenhouse gas emissions, according to the EPA, even though railroads account for one-third or more of long-distance freight volume (measured in ton-miles).

If just 10 percent of the freight that moves by the largest trucks moved by rail instead, fuel savings would be more than 1.5 billion gallons per year and annual greenhouse gas emissions would fall by more than 17 million tons — equivalent to removing some 3.2 million cars from the highways for a year or planting 400 million trees.

Railroads are constantly looking for ways to improve their fuel efficiency and further reduce emissions. Steps railroads have taken individually or collectively in recent years include:

- Installing highly advanced computer software systems that calculate the most fuel-efficient speed for a train on a given route; determine the most efficient spacing and timing of trains on a railroad's system; and monitor locomotive performance to ensure peak efficiency.
- Installing idling-reduction technologies, such as stop-start systems that shut down a locomotive when it is not in use and restart it when it is needed, and expanding the use of distributed power (positioning locomotives in the middle of trains) to reduce the total horsepower required for train movements.
- Acquiring thousands of new, more efficient locomotives and removing from service thousands of older, less fuel-efficient locomotives.
- Providing employee training to help locomotive engineers develop and implement best practices and improve awareness of fuel-efficient operations.

Railroads also help reduce the huge economic costs of highway congestion. According to the Texas Transportation Institute's 2019 Urban Mobility Report, highway congestion cost Americans $166 billion in wasted time (8.8 billion hours) and wasted fuel (3.3 billion gallons) in 2017. Lost productivity, cargo delays, and other costs add tens of billions of dollars to this tab. A single freight train, though, can replace several hundred trucks, freeing up space on the highway for other motorists. Shifting freight from trucks to rail also reduces highway wear and tear and the pressure to build costly new highways.

In recent years, railroads have begun to investigate moving away from diesel locomotives in favor of alternatives — for example, to natural gas, or even potentially to batteries or fuel

cells. At this point, it's not clear if an alternative will have the combination of affordability, reliability, and capability to be feasible for widespread use, but it does show that railroads are "looking outside the box" in terms of enhancing sustainability and environmental preservation.

Investing for the Future

As America's economy and population grow, the need to move more freight will grow too. The Federal Highway Administration forecasts that total U.S. freight shipments will rise 35 percent from 2017 to 2040. Railroads are getting ready today to meet this challenge.

America's freight railroads operate overwhelmingly on infrastructure that they own, build, maintain, and pay for themselves. By contrast, trucks, airlines, and barges operate on highways, airways, and waterways that are almost entirely publicly funded.

From 1980 to 2018, America's freight railroads spent more than $685 billion — their own funds, not taxpayer funds — on capital expenditures and maintenance expenses related to locomotives, freight cars, tracks, bridges, tunnels and other infrastructure and equipment. That's more than 40 cents out of each revenue dollar spent to keep our economy moving.

Capital Spending as % of Revenue*

Average all manufacturing	**2.9%**
Food	2.2%
Petroleum & coal products	2.4%
Machinery	2.6%
Fabricated metal products	3.1%
Primary metal products	3.1%
Wood producs	3.1%
Motor vehicles & parts	3.2%
Chemicals	3.4%
Plastics & rubber products	3.6%
Paper	4.0%
Nonmetallic minerals	4.8%
Computer & electr. products	5.1%
Class I Railroads	**19.1%**

*Avg. 2007-2016
Source: Census Bureau, AAR

Railroads are much more capital intensive than most industries. Over the past decade, the average U.S. manufacturer has spent about 3 percent of revenue on capital expenditures. The comparable figure for U.S. freight railroads is close to 19 percent, or about six times higher. Railroads know that if America's future transportation demand is to be met, they must have the capacity to handle it. Railroads are preparing for tomorrow today.

Thanks to their massive investments, freight railroad infrastructure today is in its best overall condition ever — quite a contrast to, say, America's highway network. The challenge for railroads, and for policymakers, is to ensure that the current high quality of rail infrastructure is maintained, and that adequate freight rail capacity exists to meet our nation's current and future freight transportation needs. Policymakers can help by avoiding policies that discourage rail investment.

Always Pushing to Improve Safety

For our nation's railroads, pursuing safe operations is not an option, it's a business imperative. Most importantly, it's the right thing to do. Railroads are not just faceless corporations from somewhere far away. Rather, your neighbors are their neighbors. No matter where you live, chances are good that current or former rail industry employees live nearby. Railroads know they have an obligation to operate safely for their benefit and for the benefit of all members of the communities they serve.

Railroads recognize they've not yet reached their goal of zero accidents and injuries, but we should all be encouraged by their progress. Recent years have been the safest for railroads in history. From 2000 to 2018, the train accident rate fell 35 percent, the employee injury rate fell 48 percent, and the grade crossing collision rate fell 36 percent. Railroads today have lower employee injury rates than most other major industries, including trucking, airlines, agriculture, mining, manufacturing, and construction — even food stores.

Rail operations are subject to stringent safety oversight by the Federal Railroad Administration (FRA). For example, stringent FRA regulations cover track and equipment inspections, employee certification, operating speeds, and signals. FRA safety inspectors (and in some states, state inspectors) evaluate rail facilities and operations. Railroads are also subject to

oversight by the Occupational Safety and Health Administration, the Pipeline and Hazardous Materials Safety Administration, and the Department of Homeland Security.

Railroads are constantly incorporating new technologies to improve safety. Just a few examples: sophisticated detectors along tracks that identify defects on passing rail cars; ground-penetrating radar that identifies problems below ground, such as excessive moisture, that could destabilize track; and specialized rail cars that use sophisticated instruments to identify defects in tracks.

Many railroad safety-related technological advancements were developed or refined at the Transportation Technology Center, Inc. (TTCI), the finest rail research facility in the world, in Pueblo, Colorado. TTCI is a wholly owned subsidiary of the AAR. Forty-eight miles of test tracks, highly sophisticated testing equipment, metallurgy labs, simulators, and other diagnostic tools are used to test track structure, evaluate freight car and locomotive performance, assess component reliability, and much more. The facility is leased by the FRA from the state of Colorado, but has been operated by TTCI since 1984.

Rail industry safety is also being enhanced by the Asset Health Strategic Initiative (AHSI), a multi-year rail industry program that is applying advanced information technology processes to improve the safety and performance of freight cars across North America. Through this program, advanced defect detection systems use a wide array of sensors to identify potential problems with freight cars and freight car components such as wheels, axles, bearings, and brakes. Advanced analytical programs flag suspect railcars so they can be removed from service and fixed before issues arise. Freight cars often travel across the networks of different railroads, but thanks to the sharing of information at the individual railcar level facilitated by AHSI, no matter where a particular railcar is at a particular time, preemptive action can be taken. The

sharing of information across the industry allows problems to be detected that would not be detectable otherwise. AHSI is based on the recognition that the best approach to railcar health encompasses monitoring the entire railcar life cycle.

Finally, freight railroads are committed to safely completing the implementation of positive train control (PTC) as quickly as possible so that further safety gains can be achieved. The seven Class I freight railroads all met statutory requirements by having 100 percent of their required PTC-related hardware installed, 100 percent of their PTC-related spectrum in place, and 100 percent of their required employee training completed by the end of 2018. In aggregate, Class I railroads had 93 percent of required PTC route-miles in operation as of October 2019. Each Class I railroad expects to be operating trains in PTC mode on all their PTC routes no later than 2020, as required by statute. In the meantime, railroads, in coordination with Amtrak, other passenger railroads, and other tenant railroads, are continuing to test and validate their PTC systems thoroughly to ensure they are interoperable and work as they should.

Changing Markets Present a Serious Challenge to Railroads

Freight railroads are what economists call a "derived demand" industry. This means that demand for rail service is a function of demand elsewhere in the economy for the products railroads haul. For example, automakers' demand for rail service rises when consumers are buying more cars but dries up if consumers stop buying cars. Therefore, what affects the broad economy affects railroads too.

It's no secret that the economy has not been doing as well, especially recently, as we all would like, and rail traffic has suffered accordingly. Total rail carload and intermodal volume in 2019 through October was down 4.4 percent over the same period last year. Weakness in U.S. rail volumes today is consistent with an economy in which manufacturing and commodity-

related industries especially are hurting. The ongoing trade war and accompanying uncertainty has had the most direct impact on manufacturing and commodity-related industries that are heavily served by railroads. Railroads are hopeful that this uncertainty will be eliminated and that firms here and abroad can again devote full attention to helping our economies grow.

Railroads are also impacted by what's happening in specific industries. Wheat is a good example. In a typical year, exports account for more than 40 percent of U.S. wheat production and railroads move approximately 60 percent of U.S. wheat exports. When wheat producers elsewhere in the world have good crops, or when trade restrictions are put into place, U.S. wheat exports — and, consequently, U.S. rail carloads of wheat — are impacted.

All this illustrates that the U.S. and global economies are constantly evolving. Firms, even entire industries, can and do change rapidly and unexpectedly, and railroads must be able to deal with that flux. These broad, often unanticipated economic changes are reflected in changes not only in the volumes but also in the types and locations of the commodities railroads are asked to transport, and in the amounts and uses of railroad assets. When traffic changes occur in different areas — as is usually the case and has certainly been the pattern in recent years — the challenges to railroads become magnified.

To successfully adapt to these challenges, railroads must be flexible and innovative while improving the efficiency and productivity needed to maintain their long-term financial health. Railroads may also have to invest in additional capacity to meet changing demand. Public policies that hamstring railroads by preventing or limiting this flexibility and innovation are sure to have a negative impact on railroads and on their ability to meet the transportation needs of our evolving economy.

The Importance of Appropriate Public Policies

Prior to passage of the Staggers Rail Act of 1980, excessive regulation put our nation's freight railroads in a huge financial and operational hole. By enacting Staggers, Congress recognized that regulation prevented railroads from earning adequate revenues and competing effectively. Survival of the railroad industry required a new regulatory scheme that allowed railroads to establish their own routes, tailor their rates to market conditions, and differentiate rates on the basis of demand.

One of the fundamental principles of the Staggers Act was something that had been essentially ignored for decades prior to it: if our nation is to have a viable, efficient, privately owned freight rail system, someone has to be willing to pay for it, and the market is far superior to the government in determining who should pay.

Importantly, the Staggers Act did not completely deregulate railroads. In addition to retaining authority over a variety of non-rate areas, the Interstate Commerce Committee, and now its successor, the Surface Transportation Board (STB), retained the authority to set maximum rates if a railroad is found to have "market dominance" and to take other actions if a railroad engages in anticompetitive behavior.

Nevertheless, some rail customers and their supporters in Congress and elsewhere want the STB to make major changes in the scope and intensity of railroad rate and service regulation. Most of these changes would, in one way or another, limit the prices that railroads can charge and therefore limit the revenue railroads can earn. If successful, these regulatory changes would make it much more difficult for railroads to make the investments they need to maintain and upgrade their networks and to provide the safe, efficient, and reliable service their customers need to prosper.

It would be a grave mistake to let this happen. A fundamental tenet of the economics of competition says that where competition exists, there should be no regulatory intervention. Because the vast majority of rail freight movements are subject to strong competitive forces — including competition from other railroads, from trucks and barges, product competition[1], and geographic competition[2] — the vast majority of rail movements should likewise be free of governmental oversight. Moreover, no amount of rhetoric about "competition" can change the fact that if a railroad cannot cover its costs, it cannot maintain, replace, or add to its infrastructure and equipment. Nor can it provide the services upon which its customers depend. Simply put, if the existing balanced regulatory structure were changed, either taxpayers would have to make up the difference or the industry's physical plant would deteriorate, and needed new capacity would not be added. The rail industry would not collapse overnight, but over time rail service would become slower, less responsive, and less reliable.

It's true that freight railroad financial performance in recent years has been better than it once was. However, policymakers should not view these improvements as a reason to cap rail earnings through price controls or artificial competitive constraints, since it would cause capital to flee the industry and severely harm railroads' ability to reinvest in their networks.

Today, our nation faces a number of serious transportation-related problems, many of which this Committee, to its credit, is working hard to address. It makes no sense to add to that list by trying to fix something that isn't broken. The current rail regulatory system is working well. At a time when the pressure to reduce government spending on just about everything —

[1] Substituting one product for another in a production process — for example, generating electricity from natural gas (which is not carried in significant amounts by railroads) instead of coal (which is).

[2] The ability to obtain the same product from, or ship the same product to, a different geographic area. For example, clay is used for taconite pelletization in Minnesota. This clay is available from Wyoming mines served by one railroad and from Minnesota mines served by another. Iron ore producers can play one railroad against the other for clay deliveries.

including transportation infrastructure — is enormous, it makes no sense to enact public policies that would discourage private investments in rail infrastructure that would boost our economy and enhance our competitiveness.

With respect to FAST Act reauthorization priorities, the freight railroad industry supports the following:

(1) Highway-Rail Grade Crossing Safety

Reducing accidents and fatalities at highway-rail grade crossings is of paramount importance given that most collisions are preventable. Engineering solutions (such as closing unneeded crossings and upgrading warning devices), education and enforcement are key. Thanks in part to the Section 130 federal program, grade crossing collisions are down 37% from 2000 to 2018, but much work remains.

- The federal Section 130 program, which provides funds to eliminate hazards at highway-rail grade crossings, should continue to receive dedicated, formula funding out of the Highway Safety Improvement Program.
- Funding for Section 130 should be maintained at least at current levels ($245 million in fiscal year 2020) or increased.
- Increase Section 130 incentive payments for grade crossing closures from the current cap of $7,500 to $100,000.
- Expand flexibility in the use of Section 130 funds by eliminating the arbitrary 50% cap on spending for hazard elimination projects and by enabling replacement of certain protective warning devices.
- Enable costs by public and private entities incurred for preliminary engineering for grade

crossing projects to be counted toward the non-federal share.

- Enable or incentivize states to bundle grade crossing projects into a single grant application under applicable discretionary grant programs, such as BUILD, INFRA or CRISI.
- Require or incentivize accelerated deployment of navigational warnings for motorists (e.g., smartphone apps) to warn of grade crossings.
- Require future fleets of automated vehicles to provide grade crossing warnings and/or prevention of incursions into grade crossings where gates or other devices have been activated.
- Require grade crossing safety training in driver education curricula at NHTSA through recommendations to states.
- Authorize at least $3 million per year for Operation Lifesaver through FHWA, FRA and FTA.

2. Innovations for Deployment of Safety Technologies

Freight railroads require a modernized approach to federal regulations that allows them to innovate with new technologies and processes for an even safer and more efficient rail network. The current regulatory approach to rail safety is largely prescriptive and does not easily allow for the incorporation of the best technologies to improve safety and performance. Safety and efficiency improvements should be encouraged by the FRA.

3. Project Permitting Reforms

While much has been done in recent years to cut the red tape associated with infrastructure project approval and construction, more can be done to fast-track routine

maintenance and replacement construction projects without sacrificing environmental or historical preservation concerns. These include:

- Codify that a categorical exclusion and a Finding of No Significant Impact are the only NEPA documentation needed on projects where replacement of infrastructure on existing operating railroad right-of-way is the purpose.
- Convert select executive orders on streamlining the permitting process – such as timeclocks, intermediate deadlines and One Decision for large projects – to statute.
- Continue streamlining the Sec. 106 historic preservation review process, especially for projects needed to enhance or maintain safety.

4. Support Funding for Amtrak & Public Partnering with Freight Railroads

The freight railroad industry supports funding for grant programs that enable the public sector, including state and local governments and passenger and commuter railroads, to partner with freight railroads to advance projects of mutual interest, including projects to help lessen road and port congestion, enhance safety at highway-rail grade crossings, improve port connectivity, facilitate intercity passenger and commuter rail service and improve the quality of life for communities. The following programs should continue to be authorized at existing or increased levels:

- INFRA Discretionary Grants ($1 billion in FY 2020). Caps should be upwardly adjusted or removed on multimodal freight eligibility in proportion to General Fund contributions to the HTF.
- BUILD Discretionary Grants (not authorized, but typically $1 billion appropriated).
- CRISI Discretionary Grants ($330 million in FY 2020).

- Federal-State Partnership for State of Good Repair ($300 million in FY 2020).
- Funding and authorization for Amtrak and state-supported passenger routes.

5. Restore the Highway Trust Fund to a True User-Based Fund

The current underpayment by road users, especially commercial trucking, has required a transfer of some $144 billion in General Funds to the HTF over the past ten years. Consequently, the rail sector is perennially placed at an unfair competitive disadvantage.

- Support mechanisms such as an increase in the gas tax, a vehicle miles traveled fee or a weight-distance tax that could help remedy this fundamental imbalance.
- Oppose measures to fund the HTF that would increase taxes or fees on freight railroads.
- Retain a competitive tax environment for the private sector.

6. Oppose Policies that Harm Railroads' Ability to Operate Safely and Efficiently

Congress must reject policies that would disadvantage the freight railroad industry, the most environmentally friendly way to move freight over land. These include:

- Proposals to allow longer and heavier trucks on roads, bridges and highways, until, at a minimum, trucks of all legal dimensions pay the full cost of the damage that they cause to publicly provided infrastructure.
- Mandates requiring specific operating models such as railroad crew size.
- Mandates resulting in property takings on railroad rights of way for utility or broadband access.

Conclusion

America's freight railroads are working toward a single goal: to ensure that they remain the safest, most efficient, cost-effective, and environmentally-sound mode of transportation in

the world. They are always willing to work cooperatively with you, other policymakers, their employees, their customers and all other interested parties to advance our shared interests in moving our nation forward with the help of our best-in-the-world freight railroads.