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KEEPING AMERICA MOVING: A REVIEW OF NATIONAL STRATEGIES FOR EFFICIENT FREIGHT MOVEMENT

HEARING

BEFORE THE

SUBCOMMITTEE ON SURFACE TRANSPORTATION AND MERCHANT MARINE INFRASTRUCTURE, SAFETY, AND SECURITY

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

JUNE 10, 2008

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KEEPING AMERICA MOVING: A REVIEW OF NATIONAL STRATEGIES FOR EFFICIENT FREIGHT MOVEMENT

TUESDAY, JUNE 10, 2008

U.S. SENATE,
SUBCOMMITTEE ON SURFACE TRANSPORTATION AND MERCHANT MARINE INFRASTRUCTURE, SAFETY, AND SECURITY,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Subcommittee met, pursuant to notice, at 2:33 p.m. in room SR–253, Russell Senate Office Building, Hon. Frank R. Lautenberg, Chairman of the Subcommittee, presiding.

OPENING STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM NEW JERSEY

Senator LAUTENBERG. We know that railroads can be more prompt than I was and we're working toward on-time performance with freight as well as passenger railroads. So anyway, we thank all of you here. Today we're going to take a closer look at how our Nation moves its freight by ship, truck, train, and barge, and the challenges that we must overcome to keep that freight and our economy moving in the future.

Our country has one of the best freight transportation systems in the world. It's the backbone of our economy. It carries the products that Americans rely on, such as food, clothing, toys, things that go on store shelves. Raw materials like coal, lumber, fuel and iron required to manufacture all kinds of goods are also moved as freight. Just-in-time delivery and real-time tracking of shipments have greatly reduced the need for companies to hold huge inventories because we can count on goods being there when needed.

Jobs are at stake also. In my home state of New Jersey, 11 percent of our 4.4 million workers are involved in the movement of goods.

But our economy is threatened by the current state of the transportation infrastructure and its inability to meet future demands. The Minneapolis bridge collapse was the Nation's wake-up call for the current state of our infrastructure. In fact, 25 percent of our Nation's bridges are still functionally deficient. Even when these bridges are repaired, our highways along with our ports and railroads will be overwhelmed.

Congestion on our roads already costs our country nearly $80 billion a year. On the rails, some trains take—have I been doing that, just talking to myself?

Senator KLOBUCHAR. It was charming.

[Laughter.]

Senator LAUTENBERG. Somebody was listening.

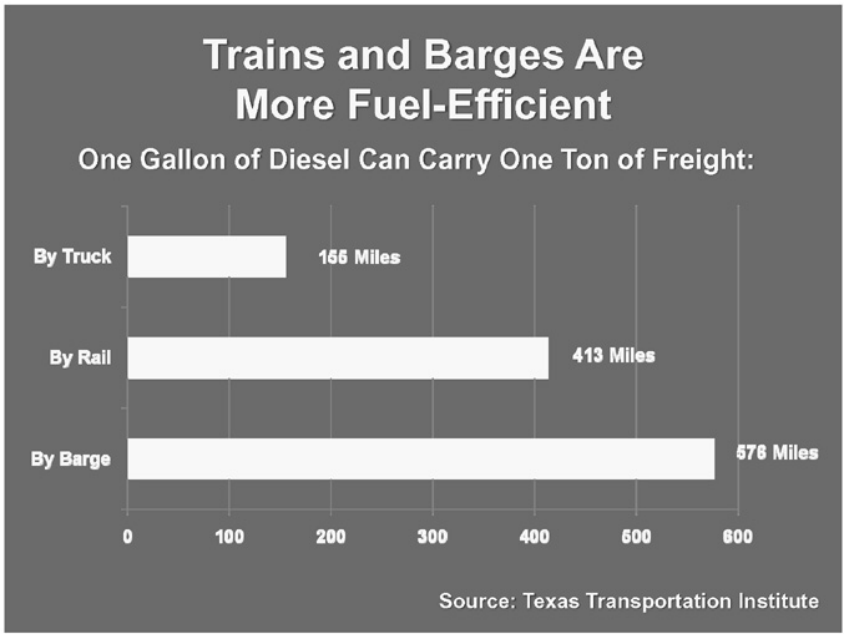
On the rails, some trains take a day to just cross the City of Chicago.

Total freight traffic is expected to double in the next 20 years. To keep getting the goods we need in the future, we've got to invest in our transportation infrastructure right now. Building roads will not solve all of our problems and in some places it's not even possible. Trains and barges can reduce highway congestion and wear and tear on our roads and bridges. They're also more energy efficient than trucks, which will aid our fight against global warming, and help us become more energy independent.

We need to encourage these efficiencies to the maximum extent possible. The Federal Government has to step up and play a leadership role in planning our future transportation network, one which takes these benefits into account. In New Jersey we know that we've got to actively plan freight transportation solutions in order to keep our region's economy moving, and in 2007 the New Jersey Department of Transportation published its first comprehensive statewide freight plan. It's time for the Federal Government to look to the New Jersey program for ideas to build a freight transportation network that is ready for the future needs.

Congress is going to consider these challenges in the next year as we reauthorize our surface transportation programs. I look forward to hearing from our witnesses how we can meet that challenge. I ask now that my colleague from Minnesota, Senator Klobuchar, have a chance to make her opening remarks.

Before that, I attract your attention to what we see in display form. Trains and barges are more fuel efficient. Look at this. One gallon of diesel can carry a ton of freight if it goes by truck 155 miles, by rail 413 miles, and by barge 576 miles. This tells you about the significant part of what we've got to do and the problem that we have if we don't take advantage of these time-saving and value-saving changes.



Senator LAUTENBERG. Now, please, Senator Klobuchar.

STATEMENT OF HON. AMY KLOBUCHAR, U.S. SENATOR FROM MINNESOTA

Senator KLOBUCHAR. Well, thank you very much, Senator Lautenberg, for holding this hearing, and thank you to our panelists, witnesses, for being here today.

I believe that most people involved in freight transport agree that our infrastructure and our funding for infrastructure is outdated and that we need new thinking for how we're going to maintain and expand our infrastructure. Senator Lautenberg mentioned the bridge collapse in Minnesota. That certainly is something that makes our state particularly focused on it, six blocks from my home. But I've also seen it when I visit all 87 counties in our state every year. I've stood in Renville County as they came out in zero degree weather with rail ties that had fallen apart, and I've seen the tremendous potential for biofuels in our state, but then see that we have a transportation system that's actually worn down from the increase in biofuels and from the weight of these new products, and yet we aren't keeping up.

You only have to look at the rest of the world to see the fact that the U.S. transportation system is starting to fall behind. China is building a 53,000-mile national highway system set to rival or exceed the one we created half a century ago. India is similarly building thousands of miles of new highways, and the European Union is continuing to devote significant public resources to the development and upgrade of its highways, railways, ports, and waterways.

To compete with these economies, maintain economic prominence, and sustain economic growth, we will need to modernize and

integrate our freight transportation systems, including our waterways, our highways, and our railroads. When I get around my State, the things that are most mentioned about the transportation system is, first of all, the need for more, particularly rail lines, with our new rural economy that is revitalizing so much of our rural area.

Second is the expense, especially for trains, and the issue of how the rail companies are pricing some of the routes. That's very hard for our captive shippers. Senator Dorgan and I have a bill to try to fix that.

Third is that as the expenses go up, the lack of stops, the fact that they can go back and forth across a small town and they're not able to get the delivery that they need. Those are all things I've heard time and time again in our State.

In Minnesota and throughout our country, as I mentioned, we're at the beginning stage of a new energy and economic revolution. But one thing is clear. We will not be able to build a 21st century economy by relying on a 20th century infrastructure that is both rapidly deteriorating and inadequate for our growing needs.

Our Nation has faced this challenge before, a half century ago, and we succeeded in building a new modern transportation system for our new modern economy. In his 1963 memoir, "Mandate for Change, 1953 to 1956," President Eisenhower famously said that: "More than any single action by the government since the end of the war, the building of the interstate highway system would change the face of America. Its impact on the American economy, the jobs that it would produce in manufacturing and construction, the rural areas it would open up, was beyond calculation."

He was right. It is now our responsibility to restore and update Eisenhower's vision of a transportation infrastructure, including updating our waterways, railroads, and highways, so that the system works for all Americans.

Thank you very much.

Senator LAUTENBERG. Thank you, Senator Klobuchar.

Now I want to formally welcome our panel of witnesses. They are: the Honorable Paul Brubaker, Administrator of the Research and Innovative Technology Administration at the U.S. Department of Transportation; the Honorable Astrid Glynn, who's here as Chair of the American Association of State and Highway Transportation Officials Standing Committee on Rail Transportation, and I note also that Ms. Glynn is also the Commissioner of the New York State Department of Transportation, and we welcome you here as a neighbor as well as an important witness.

Admiral Rick Larrabee, the Port Commerce Director of the Port Authority of New York and New Jersey. As a former Commissioner, which is what I was doing when I was elected to the Senate—it wasn't my full-time job, but I learned a lot about transportation in the few years I was there—I appreciate the job that Rick Larrabee is doing.

And Ed Hamberger, who serves as the President and CEO of the Association of American Railroads. Pleased to see you.

And Mr. Glenn Vanselow, the Executive Director of the Pacific Northwest Waterways Association.

I'm glad that we have all of you here as witnesses before our Subcommittee and thanks for bringing the experiences that you and the issues that you have reviewed over these few years. We look forward to hearing your testimony.

Administrator Brubaker, if you would start, please, honoring the 5-minute rule, and we look forward to hearing you.

STATEMENT OF HON. PAUL R. BRUBAKER, ADMINISTRATOR, RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION

Mr. BRUBAKER. Sure. Thank you. Chairman Lautenberg, Ranking Member Smith, Senator Klobuchar, and Members of the Subcommittee: I'm grateful for the opportunity to be here before you today to testify on national strategies for efficient freight movement.

Today the United States is an integral part of an unprecedented global economy. We've seen significant increases in freight flow throughout our supply chain here as we look at the traffic that flows into the United States. These changes are funneling increasing volumes of freight through our major gateway ports and to and from our major metropolitan areas, concentrating in regions that are already some of the most congested in the Nation.

Our Nation's transportation network moves over 50 million tons of freight, worth $36 billion, over highways, roads, bridges, rails, ports, and pipelines every day, competing with passenger movement for network capacity, and the Department anticipates that this figure will almost double by 2035. This sheer volume of goods and services is straining the network's capacity for supporting the efficient movement of freight, threatening America's ability to remain competitive in the global economy.

As a result the cost of moving freight is significantly increasing. After 17 years of decline, logistics costs grew by $156 billion for U.S. companies between 2004 and 2005, accounting for 8.8 percent of the gross domestic product, a figure that increased to 9.5 percent a year later.

The Department must also take into consideration the rise in fuel prices and the potential impact those fuel price increases have on the performance of supply chains, as what was once a fairly stable expense is adding to the cost of transporting goods.

These trends, if left unabated, will continue to drive up the cost of transporting goods, significantly impacting our economy and our quality of life. The Department believes the most effective strategy for addressing this challenge is to strengthen and diversify our efforts to collect and analyze freight movement data from an intermodal, holistic perspective. The Department must have a better understanding of the dynamics of freight movement in order to more effectively plan and allocate departmental resources. There is a need to expand our data collection capabilities to increase the in-transit, intermodal visibility of freight flows so that effective performance measures can be assessed, bottlenecks identified, and models can be developed that will allow us to simulate scenarios and predict future system performance.

Cutting edge technologies that are already on the market, such as RFID and differential GPS, can significantly improve capabili-

ties in this effort by accurately tracking movements. These innovations even extend beyond transportation applications and into applications such as freight security that contribute to system inefficiencies.

New freight transportation paradigms such as short-sea shipping, or the marine highway, intelligent transportation systems, and remote sensing show tremendous potential to reduce congestion and enhance freight planning and management. Cooperative research is needed to determine the viability and effectiveness of these new approaches.

The multi-state international makeup of supply chains, coupled with the fact that much of the infrastructure is owned and operated by multiple public and private entities, will require the establishment of public-private partnerships, cooperations, and better institutional arrangements in order for the Department to achieve its goals. Departmental programs that invest in partnerships have grown, have shown great potential for freight management research and development. Many of these programs are the direct result of the mandate provided by SAFETEA–LU.

One of the Department's most significant freight data programs is the Commodity Flow Survey, or CFS. The CFS is the main data engine that supports the Federal Highway Administration's Freight Analysis Framework, or FAF, a key resource for forecasting trends in freight movement and identifying changing supply and distribution patterns.

The National Cooperative Freight Research Program, which is sponsored by my agency, RITA, brings together freight stakeholders from industry, government, academia, and other relevant entities to conduct applied research on problems facing the freight industry. This group's work began in late 2006 and we're anticipating significant results from their research later this year.

The Department's Congestion Initiative is a national blueprint that encompasses a broad array of congestion-reducing programs, including urban partnerships, to test intelligent transportation systems and congestion pricing innovations in several major cities.

The Corridors of the Future program is fast-tracking major congestion-reducing projects and is looking to implement technology and operational improvements to measurably improve safety and system performance.

Programs like University Transportation Centers seek to tap into the vast pool of expertise and existing research portfolios of our Nation's academic community by funding specific transportation studies, including freight management and planning.

These types of strategies, which focus on working with regional authorities and private sector stakeholders, are going a long way toward meeting the challenges of creating a resilient, secure infrastructure for the efficient movement of freight, but much more has to be done.

The key to our national strategy is to have a broader, more in-depth understanding of supply chains and the interstate and multinational dynamics that impact the flow of goods across our Nation's transportation network. This will take greater cooperation between stakeholders, better institutional arrangements for sharing information, planning and implementing multiple State and public-pri-

vate projects, effective performance measures, and operational improvements to the transportation system.

Thank you.

[The prepared statement of Mr. Brubaker follows:]

PREPARED STATEMENT OF HON. PAUL R. BRUBAKER, ADMINISTRATOR, RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION

Introduction

Chairman Lautenberg, Ranking Member Smith, and Members of the Subcommittee, I am grateful for the opportunity to come before you today to testify on National Strategies for Efficient Freight Movement.

The United States (U.S.) freight transportation system is efficient, reliable, safe, and secure. The freight system underpins the Nation's continued economic growth, and historically the U.S. has led the world in freight system design and management. Yet dramatically increasing freight flows have created congestion in some sectors of the transportation system, imposing costs on shippers, consumers, and the environment. This statement will focus on current and future challenges facing the efficient movement of freight throughout the Nation's transportation system, including in ports, on railroads, and by commercial motor vehicles, and will also address new technological developments that could help improve the efficiency of freight transportation.

The U.S. transportation system must not only be able to handle both growth in the volume of freight and passenger movement, but as new markets and trade routes emerge, it must enable increasingly complex supply chains to operate. The Interstate Highway System was a critical innovation that helped fuel the unprecedented growth of 20th century, post-war America, enabling the movement of freight arriving at our ports from overseas and goods manufactured in our large cities to small towns across the country. The Interstate Highway System provided an infrastructure that not only offered the interconnectivity for economic expansion, but acted as a catalyst for it. However, the highway system we are using today must handle very different dynamics.

Changes in demographics, manufacturing, and warehousing, and a dramatic increase in imported manufactured goods and foods, have caused freight funneling at major gateway ports, leading to congestion on the highways and at the rail connections as containers are reloaded on trucks and rail cars. Private sector changes in inventory management and production operations are placing demands on the transportation system that go beyond connectivity to speed, reliability, and throughput. Logistics costs have been rising for some time. As reported by the Council of Supply Chain Management Professionals, logistics costs as a percent of gross domestic product have increased 63 percent since the beginning of 2004. In 2006, inventory carrying costs jumped 13.5 percent, while transportation costs were up 9.4 percent over 2005 levels, and the trends are expected to continue. To make maximum use of the entire transportation system, it is imperative to develop better and smarter approaches to moving cargo and people through the entire intermodal system, from origin to destination.

The United States is part of an unprecedented, global economy that transcends borders. Telecommunications and computing technology have evolved to meet the demands of consumers, industry, and government in a world that is vastly more connected on a daily basis than when the Interstate Highway System was built. Each day, an estimated 50 million tons of freight, worth $36 billion, moves over our highways, roads, bridges, rail, ports, coastal and inland waterways, or marine highways, ports and pipelines. Current analysis clearly shows the predominant corridors through which freight is moving, and the connection between freight flows and metropolitan areas.

The Department estimates that the total tonnage of domestic and foreign freight traveling along the U.S. transportation system will almost double by 2035, with international shipments, most of which move by water, growing at a somewhat faster rate than domestic shipments. The U.S. freight system faces significant capacity constraints at key freight gateways, and it is straining to move the current volume of freight quickly, reliably, and economically in order to sustain growth. The difficulties posed by increased cargo volumes are compounded by environmental challenges, a limited supply of land on which to expand transportation facilities, congested road and rail linkages, and increasing fuel costs. Effective policy solutions will require coordinated and collaborative action by both public and private parties. To be credible and achievable, these solutions require input and buy-in from the broader

freight sector, including both public and private sector interests. The Department has begun the process of soliciting such input, and DOT looks forward to working with its partners to further develop the freight framework.

It is clear that the public and private sectors will need to closely coordinate to address modern freight challenges. The private sector owns and operates the mobile assets, controlling when, where, and how goods are moved on public and private transportation facilities. Trucks, rail cars, and ships are privately owned. Maritime terminals are predominantly operated by private entities, with only a few publicly operated.

This largely private-sector ownership of the components of the transportation network has been extremely effective in increasing transportation productivity and reducing transportation costs to shippers. From 1987 to 1999, productivity in rail freight transportation—the freight mode (other than pipelines) that is most completely in private hands—increased by 48 percent, and rail freight rates fell by 18 percent. Trucking productivity rose by 15 percent during the same period, and airline productivity rose by 16 percent—all more than the overall 10-percent increase in U.S. private business productivity. Moreover, all the freight modes have responded effectively to shipper requirements, providing more frequent service of smaller shipments to accommodate their demands for Just-in-Time deliveries of freight that allow reductions in inventories and logistics costs.

The Department of Transportation's Framework for a National Freight Policy identifies seven objectives for addressing the congestion that has been created in the transportation system from dramatically increasing freight flows. With regard to capacity, these are to improve the operations of the existing freight transportation system, and add physical capacity to the freight transportation system in places where investment makes economic sense. A third objective is to use pricing to better align costs and benefits between users and owners of the freight system and to encourage deployment of productivity-enhancing technologies. It recommends actions be taken to reduce statutory, regulatory, and institutional barriers to improved freight transportation performance, and to proactively identify and address emerging transportation needs. The sixth objective is to maximize the safety and security of the freight transportation system. Last, the Framework recommends that actions should be taken to mitigate and better manage the environmental, health, energy, and community impacts of freight transportation. Effective policy solutions will require coordinated and collaborative action by both public and private parties.

Solutions that unlock the constraints of these complex, interwoven networks must extend beyond the jurisdiction, or authority, of any one entity. Effective solutions to these challenges will necessitate coordinated and collaborative efforts of all transportation stakeholders.

Here are some examples that exemplify this level of cooperation:

The National Cooperative Freight Research Program (NCFRP) is a multi-modal freight research program, guided by an oversight committee of industry representatives, academics, and public officials. Current NCFRP projects now underway, or being initiated, include mobility constraints, measuring operational performance, identifying investment needs, and assessing the environmental and economic impacts of freight transportation. This program is indicative of the potential found in cooperation between stakeholders.

Likewise, the University Transportation Centers (UTC) program is an investment, and cooperative endeavor, in our Nation's institutions of higher education; to cultivate U.S. expertise in transportation research and technology transfer, offering a wealth of knowledge and innovation to the area of freight movement. Sixty UTC's are currently active, including the Alan M. Voorhees Transportation Center at Rutgers University, which is exploring the establishment of a Freight Transportation Center for Excellence.

The Freight Performance Measures program, another public-private effort, enables the Department to measure travel speeds and travel time reliability across two-thirds of the Interstate Highway System. This data is available through an arrangement with the trucking industry. Many long-distance trucking firms use GPS transponders on their cabs to track their assets; this allows businesses to maintain continual awareness of asset movement. Through a collaborative agreement with the American Transportation Research Institute, we can tap into GPS data from over 350,000 trucks that are traversing our Nation's roadways on any given day. We hope to expand this data to include over 400,000 trucks by 2009. We use this data to calculate travel speed and time reliability throughout twenty-five corridors across America. This helps the Department gain insight into system performance, so that we can better focus our efforts in increasing network capacity.

These system performance measures allow every entity involved in transportation, public and private, to better manage its resources. Performance measures are driven by data—data that are absolutely vital for the Department to conduct accurate analysis, simulation, and modeling. The Department's Research and Innovative Technology Administration has several programs that have been critical to our efforts to collect data and assess our Nation's freight movement performance and needs.

The largest of these data programs, the Commodity Flow Survey (CFS), provides primary national and state-level data and forecasting on domestic freight shipments and exports by American establishments, with the latest data expected to be released at the end of the year. The CFS is also the main data engine that supports the Federal Highway Administration's Freight Analysis Framework (FAF). The FAF commingles the CFS data with a broad array of publicly available freight data to create the complete picture of freight flows you see here.

We are also supporting private sector investment in freight transportation through our Private Activity bond program, authorized by section 11143 of SAFETEA–LU. This provision allows private investors to benefit from tax-exempt financing of transportation infrastructure. We have received three applications for intermodal freight transfer facilities totaling $2.2 billion, and capable of handling more than 2 million containers per year.

As noted earlier, the complexity of supply chains and the multi-jurisdictional nature of freight movement complicate our institutional ability to address stresses on the transportation system. As part of its Congestion Initiative, the Department announced the Corridors of the Future Program which will challenge agencies to work collaboratively to develop dynamic financial and operational mechanisms to improve the flow of goods and people.

The PierPass program in Southern California is an excellent example of how congestion pricing can improve to the flow of goods at our Nation's ports. The PierPass program charges a traffic mitigation fee of $50/TEU (this equals a $100 charge for an average 40-foot container) to encourage the pick-up of containers during off-peak hours (6 p.m. to 3 a.m.). The off-peak shift now handles about 65,000 truck trips a week, or 37 percent of the container moves at the two ports. Since its inception in July, 2005, over 8 million truck trips have shifted to off-peak hours.

The independent evaluators of this program from the University of Southern California noted: "Like the handful of experiments with congestion pricing, it demonstrates that price incentives are powerful tools for managing the transportation system."

Pipelines are a transportation system that can be used to relieve congestion on the railroads. Seventy percent of oil and petroleum products and close to one hundred percent of natural gas is transported by privately owned pipelines. Large volumes of anhydrous ammonia, carbon dioxide, and other chemicals are moved by pipeline. It is expected that in the near future, large amounts of ethanol, which is currently carried by rail, may be moved by pipeline as well.

Congestion pricing is an excellent example of how businesses can change their patterns to use existing capacity more efficiently. While we are on our way to addressing the challenge of maintaining a resilient, secure, and efficient transportation system for the movement of freight, more has to be done to use our existing resources, and to develop innovations that will enable America's transportation system to support the growing demand for goods and services.

One such example is America's Marine highway, which includes our coastal waters, our inland waterway system and the Great Lakes. Although the United States already transports one billion tons of domestic cargo on our domestic waterways each year, this 25,000 mile network of navigable waters can help us expand our way out of landside congestion. The Energy Independence and Security Act of 2007 directed the Secretary of Transportation to establish a Marine Highway Program to encourage this transformation and identify the disincentives that keep the congestion on the highways and railroads. The Department of Transportation's Maritime Administration is working with their many stakeholders to implement this promising program as quickly as possible.

The key for our national freight strategy is to have a broader, more in-depth understanding of supply chains and the interstate and multi-national dynamics that impact the flow of goods across the transportation network. This will take greater cooperation between stakeholders, better institutional arrangements for planning and implementing multi-state projects, effective performance measures, and operational improvements to the transportation system.

Thank you again for inviting me to testify. I would be happy to answer any questions that the Subcommittee members might have.

FREIGHT IN THE SAFE, ACCOUNTABLE, FLEXIBLE, EFFICIENT TRANSPORTATION EQUITY ACT: LEGACY FOR USERS (SAFETEA–LU) P.L. 109–059

Table 1.—Direct Expenditures for Freight Infrastructure in SAFETEA–LU

Projects of National/Regional Significance	$1.779 billion over 5 years	Rulemaking to solicit and select new projects in review; 20 of 25 originally identified projects underway or in review
National Corridor Infrastructure Improvement	$1.948 billion over 5 years	28 of 33 identified projects underway or in review
Coordinated Border Infrastructure Program	$833 million over 5 years	Apportioned program to border states
Freight Intermodal Distribution Pilot Grant Program	$30 million over 5 years	3 of 6 identified projects underway or in review
Truck Parking	$25 million over 4 years	Multiple year funding combined into one request for proposals and projects submitted through the Corridors of the Future initiative
Total	$4.615 billion	

Source: USDOT, *2006 Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance,* page 14–7, at *www.fhwa.dot.gov/policy/2006cpr/chap14.htm*.

Table 2.—Other Freight Provisions in SAFETEA–LU

Transportation Infrastructure Finance and Innovation Act (TIFIA) Program	Eligibility expanded for financing freight projects	Examples include Reno rail project ($51 million) and Louisiana highway access to water terminals ($66 million)
State Infrastructure Banks	Program extended	Example includes truck diesel retrofits on West Coast
Private Activity Bonds	Tax code modified to encourage up to $15 billion private investment in freight facilities	Examples include 3 intermodal yards ($2.2 billion) and the Miami port tunnel ($900 million)
Freight Professional Capacity Building	$3.5 million over 4 years	Several courses and distance-based learning programs initiated
National Cooperative Freight Research Program	$15 million over 4 years	Current projects listed in table 3
Hazardous Materials Cooperative Research Program	$5 million over 4 years	Current projects listed in table 3

Source: USDOT, *2006 Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance,* page 14–7, at *www.fhwa.dot.gov/policy/2006cpr/chap14.htm*.

Table 3.—Cooperative Freight and Hazardous Materials Research Projects through 2008

NCFRP 01	Review and Analysis of Freight Transportation Markets and Relationships
NCFRP 02	Impacts of Public Policy on the Freight Transportation System
NCFRP 03	Performance Measures for Freight Transportation
NCFRP 04	Identifying and Using Low-Cost and Quickly Implementable Ways to Address Freight-System Mobility Constraints
NCFRP 05	Framework and Tools for Estimating Benefits of Specific Freight Network Investment Needs
NCFRP 06	Freight-Demand Modeling to Support Public-Sector Decision Making
NCFRP 09	Institutional Arrangements in the Freight Transportation System
NCFRP 10	Separation of Vehicles: Commercial Motor Vehicle Only Lanes
NCFRP 11	Current and Future Contributions to Freight Demand in North America
NCFRP 12	Specifications for Freight Transportation Data Architecture
NCFRP 13	Developing High Productivity Truck Corridors
NCFRP 14	Truck Drayage Practices
NCFRP 15	Understanding Urban Goods Movements
NCFRP 16	Representing Freight in Air Quality and Greenhouse Gas Models
NCFRP 17	Synthesis of Short Sea Shipping in North America
HMCRP 01	Hazardous Materials Commodity Flow Data and Analysis
HMCRP 02	Hazardous Materials Transportation Incident Data for Root Cause Analysis
HMCRP 03	A Guide for Assessing Emergency Response Needs and Capabilities for Hazardous Materials Releases
HMCRP 04	Emerging Technologies Applicable to Hazardous Materials Transportation Safety and Security
HMCRP 05	Evaluation of the Potential Benefits of Electronic Shipping Papers for Hazardous Materials Shipments
HMCRP 06	Assessing Soil and Groundwater Environmental Hazards from Hazardous Materials Transportation Incidents

Source: *www.trb.org/CPR/NCFPR/NCFRPProjects.asp* and *www.trb.org/CPR/HMCPR/HMCRPProjects.asp.*

Senator LAUTENBERG. Thank you very much, Mr. Brubaker.

Ms. Glynn, please.

STATEMENT OF HON. ASTRID C. GLYNN, COMMISSIONER, DEPARTMENT OF TRANSPORTATION, STATE OF NEW YORK; AND CHAIR, STANDING COMMITTEE ON RAIL TRANSPORTATION, AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

Ms. GLYNN. Thank you, Senator. Thank you, Mr. Chairman and Senators. My name is Astrid Glynn and I want to thank you for the opportunity to be here today on behalf of AASHTO. I would like to describe the freight transportation problem as we see it, focus on the public sector's role, particularly the Federal Government's role, describe some of the states, and then close with a brief summary of AASHTO's freight policy recommendations, all of which are set forth in greater detail in the written testimony.

As you have said, the United States still has the most productive transportation system in the world. But that transportation system is starting to show its age and limitations. Later in this century, the U.S. economy will no longer be the world's largest. Investment in a 21st century transportation system is one of the actions we need to undertake if we are to avert economic decline.

Growth in trade and change in freight traffic, combined with limited growth in system capacity for all modes, mean more congestion, increased costs, and less reliable trip times. This in turn means added manufacturing costs, higher import prices, and a need for businesses to hold more inventory. Over time these costs add up to a higher cost of doing business and a higher cost of living for Americans.

We are starting to see a disturbing rise in total logistics costs, the first in 25 years. In 1980 logistics costs were approximately 16 percent of the GDP. They had dropped to less than 9 percent a few years ago, a significant spur to economic growth. Now we are headed in the opposite direction, with logistics costs at about 10 percent, and this estimate is prior to the recent and dramatic changes in fuel costs.

Clearly the public sector has an immense social, economic, and environmental stake in our freight system. The performance of the network directly affects our jobs, our standard of living, our community, and our national security. We have tremendous responsibilities also because we as the public sector own, operate, regulate, or secure much of the system.

The Federal Government must continue to lead the public sector in that role. At each of the transportation policy commission hearings held over the last couple of years, Vice Chair Jack Shannendorf asked each panel whether the Federal Government should continue to have a major role in transportation. The answer was a unanimous and unqualified yes, and this answer holds even more true for freight since America's ability to compete in the global economy is directly tied to the health of our freight system.

States have recognized the need for our action. Four of the most notable State initiatives are: the Chicago CREATE Program that will help address the transfer time that you alluded to, Mr. Chairman; the FAST Corridor in Washington State and the Alameda Corridor in California, both to provide improved port access; and

the I–95 Corridor Coalition that coordinates freight information for the East Coast. More information on these initiatives are in my written testimony.

But I'd like to spend a couple of minutes if I may talking about some of New York's initiatives, because we are also, like many States, working to address exponential growth in freight. I'd like to focus on two areas, transit and borders. Transit may not seem like it relates to freight, but it does. The greatest challenge for freight is the last mile. In areas such as Upstate New York, this could be a railhead or a bridge that, weight limits willing, allow a farm to ship his apples cost effectively or that allows a factory to invest in its workforce rather than in extra inventory.

But the last mile is also a challenge to major metropolitan areas, where highway congestion threatens freight mobility. New York City is one of the most truck-dependent and transit-dependent cities in the Nation. The more we are able to move people by transit, the more scarce urban highway capacity can we make available for trucks. Unfortunately, we lack the rail connections that provide us—that might provide us with alternatives.

The relationship between transit and efficient goods movement is not unique to New York City. It is a factor in every major metropolitan area in the country.

More than ever, international trade drives demand. So I want to focus for a minute on land-side borders. Nearly one-quarter of all U.S.-Canadian trade, the largest bilateral trading relationship in the world, passes through New York State's northern and western ports of entry and on to our road and rail systems. Nearly 80 percent of this trade either originates in or is destined for States outside of New York, and this is a story that my sister border States will tell you again and again.

The Federal Government needs to share in the costs of maintaining and improving this international access. Localities cannot be primarily responsible for this infrastructure. It is unrealistic to think that they can bear that burden. We know that there is a Federal interest and we hope that that Federal interest will be translated into facilitation and support.

I just want to close briefly by summarizing AASHTO's policy recommendations, which focus on not just the need for funding, but also a strong Federal partnership and a request that the Federal Government help us find ways to address projects that have benefits for an area larger than a State and help us find ways to work together and address those regional needs that are so pressing.

Thank you, Mr. Chairman.

[The prepared statement of Ms. Glynn follows:]

PREPARED STATEMENT OF HON. ASTRID C. GLYNN, COMMISSIONER, DEPARTMENT OF TRANSPORTATION, STATE OF NEW YORK; AND CHAIR, STANDING COMMITTEE ON RAIL TRANSPORTATION, AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

Good afternoon, I am Astrid Glynn, Commissioner of the New York State Department of Transportation. Thank you for the invitation to speak today on an issue of critical importance to the nation—current and future challenges facing the efficient movement of freight throughout our Nation's transportation system and national strategies to address these challenges.

I am appearing on behalf of the American Association of State Highway and Transportation Officials (AASHTO). I chair AASHTO's Standing Committee on Rail

Transportation and am a member of AASHTO Freight Transportation Authorization Policy Team. I will also touch on some New York State issues and the activities of the I–95 Corridor Coalition.

Since the publication of the AASHTO Freight Rail Bottom Line Report in 2002, AASHTO and its members have worked hard to respond to the increasing freight sector demand for safe, reliable, efficient and affordable transportation. Despite these efforts, the condition and performance of the transportation system is not keeping up with the increasing demands of the freight sector.

AASHTO has undertaken a number of freight transportation activities. Specifically, AASHTO has:

- Published *America's Freight Challenge,* a report with recommendations submitted to the National Surface Transportation Policy and Revenue Study Commission;
- Organized a Transportation Vision Conference in Spring, 2007 which included substantial attention to freight transportation needs; and
- Updated the *Freight Rail Bottom Line Report* to a comprehensive freight report, currently in final draft, which contains analyses of the major freight modes as well as an overview of freight demand and logistics.

These and other materials will be provided to the Committee staff for use by the Committee.

For the Spring, 2007 Vision Conference, AASHTO convened a predominantly private sector group to produce a report. That group's report was titled *"The U.S. Freight Transportation System in the Global Economy: Anchored in the Past—Adrift in the Future."* The conclusions and recommendations were on two dimensions—the improvements needed in the freight transportation system and, changes needed in politics and government to accomplish these improvements.

In the first of these dimensions they recommended:

- Expanded and targeted highway capacity;
- Integration of private supply-chain management and public infrastructure;
- Increased freight rail capacity;
- More efficient port operations;
- Improved intermodal connections;
- Coordinated multimodal/multistate corridors; and
- Strategically located intermodal facilities.

But, they said, it will not be possible to achieve these objectives unless political and institutional obstacles are overcome, including:

- Lack of national leadership;
- A weak Federal role;
- Absence of a clear consensus on a vision of the freight system and its performance;
- Fragmented Congress;
- U.S. DOT modal stove pipes;
- A disconnect between business and government;
- Lack of multi-state collaboration;
- Projects which have a national benefit of transportation projects, but whose costs are borne locally; and
- Local fragmentation and parochialism.

Business has entered the 21st century, while the U.S. freight transportation system that supports it was built for the 18th, 19th, and 20th centuries. While the United States still has the most fully developed, efficient, and productive transportation system in the world, it is showing signs of age, over-use, obsolescence, and fragmentation. Although transportation and logistics are fundamental elements of the manufacturing and retail sectors, the transportation system is not well-integrated with contemporary supply-chain management practices.

Emerging world economies are investing in transportation and intending to leap into the future while the United States patches up the past. Every mile of highway, railroad, and waterway, every acre of seaport is operating in the global economy and, depending on its condition and performance, either helps or hinders America's global competitiveness.

Some say that by the middle of this century, the U.S. economy will no longer be the world's largest. Is America in decline? Investment in a 21st century transpor-

tation system is one of the actions needed to avert decline. The challenge now is to think differently and to execute that new way of thinking effectively and expeditiously.

For nearly a decade we have been dwelling on the national freight transportation problem. By now, everything has been said *and* everyone has said it. We must translate the agreement that there is a problem into a commitment to action. Now is the time to solve it. If we don't we will pay a high price.

The demand for freight transportation to support economic growth will nearly double between 2005 and 2035 (see chart). Measured in tons, freight demand will grow from 15 billion tons today to 26 billion tons in 2035, an increase of 89 percent. Measured in ton miles (a ton of freight moved a mile counts as one ton-mile), freight demand will grow from 6 trillion ton-miles today to 11 trillion ton-miles in 2035, an increase of 92 percent. The table attached shows the freight tonnage forecast by mode for 2005 through 2035.

The effects of rapid growth in demand and limited growth in system capacity for all modes are increased congestion, increased costs and less reliable trip times. This, in turn means increased costs for manufacturers, higher import prices, and a need for businesses to hold more expensive inventory to prevent stockouts. The effect on each individual shipment or transaction is usually modest, but over time these costs add up to a higher cost of doing business for firms, a higher cost of living for Americans. And it makes it more difficult for our Nation to compete in the global marketplace.

Constraints on freight transportation infrastructure for all modes have contributed to a disturbing rise in total logistics costs—the first in 25 years. In 1980 these costs totaled about 16 percent of the gross domestic product (GDP). Infrastructure investment, deregulation, and advanced logistics practices combined to reduce logistics costs to less than 9 percent in the first years of this century, reflecting increases in efficiency and capital released for other investment that produced a significant spur to economic growth. Now we are headed in the opposite direction, with logistics costs now at about 10 percent—before the recent significant increase in the price of diesel fuel.

The performance of the Nation's freight transportation system is critically important. It directly affects:

- *Economic Development and Jobs*—Cost-effective and reliable freight transportation gives industries and businesses a competitive advantage in the global economy by providing them the ability to deliver products at lower cost and reach larger markets. This translates into more jobs, greater profitability, and better growth prospects. Poor freight transportation performance means smaller markets, fewer jobs, and limited economic development opportunities.
- *Standard of Living*—The freight transportation system delivers an immense range of food, clothing, tools, materials, and services to our homes and businesses. Consumers enjoy an unprecedented variety and quality of products because producers are able to manufacture, trade, and distribute across local, national, and global markets. Poor freight transportation performance means higher costs, less choice, and a lower standard of living for all citizens.
- *Communities*—Freight transportation is heavy industry. A well-performing and innovative freight transportation industry means less congestion, fewer air pollutants and greenhouse gas emissions, quieter operations, and greater safety in our communities. Poor freight transportation performance leads to degradation of community health and safety.
- *Military Capability*—The freight transportation system that supports the Nation's civilian economy also supports the Nation's military. It ensures a ready and reliable supply of material and gives the military the mobility to operate effectively at home and abroad. Poor freight transportation performance means less mobility, higher cost, and greater risk.

The public sector has a major role in the freight transportation system: it owns and operates the highways; owns and manages most of the Nation's ports, waterways, and airports; regulates the rail and pipeline systems; and oversees the security of all freight transportation facilities and freight carriers. It has an immense social, economic, and environmental stake in the condition and performance of the freight transportation system.

The nation is entering the early stages of a freight transportation capacity crisis. But the public sector is poorly positioned to deal with the emerging crisis because there is:

- No clear and consistent description of the national freight transportation system, its performance, and investment needs;

- Insufficient public sector knowledge of freight transportation and supply chain management and their importance to businesses and economic growth;
- Lack of coordinated public and private actions on freight transportation policies, programs, and finance; and
- Lack of public sector focus on transportation operations.

As a Nation, we rely upon a legacy of 300 or more years of transportation investment to deliver the promise of an economy of the future. Our most recent major investment, the 50-year old interstate highway system, was laid on top of a 19th century rail system. As a direct result of that Federal investment, the rail system adapted and shrank, leaving thousands of modal disconnects that would be unjustifiable and inconceivable if the network were designed today. The reduction in rail track mileage, the increase in rail traffic (both passenger and freight), and changes in the operating strategy of the freight railroads have resulted in more and longer trains operating at reduced speeds, creating more conflicts with highway movement, increased safety risks, bifurcation of communities, and exacerbation the problems of urban traffic circulation. Some of the best-known freight projects or programs—the Alameda Corridor, CREATE, and the Seattle-Tacoma FAST Corridor—are largely grade separations and crossing upgrades that also benefit highway operations and safety. In areas fortunate enough to have robust commuter rail and inter-city passenger rail, the conflicts are between passenger and rail customers each trying to use the same constrained system.

Most of the Nation's gateway seaports and other major modal and intermodal freight traffic generators established over the past three centuries are now embedded in densely populated urban areas. Most cannot be moved. Their efficiency has been compromised by the characteristics of their surroundings which present obstacles to linking with these important freight gateways with the national highway and rail systems. The lack of connectivity leads to substantial negative environmental impacts on local communities. Many of those negative impacts can be mitigated by improving the transportation connections between these freight gateways and the core national transportation system. Deficient intermodal connectors were identified at the time the National Highway System was designated in the mid-1990s. In the decade since there has not been a systematic, national strategy to address the local burden of transportation facilities which provide national benefits.

Since the interstate highway system was originally envisioned and built in the 1950s, the Nation's population has increased, population growth has shifted, the number of vehicles and vehicle miles travelled (VMT) has increased disproportionately, and the trucking industry has grown and evolved in ways that no one did or could have predicted. Today, we have a number of interstate highway chokepoints, principally at the intersection of Interstate highways and in major metropolitan areas, which produce sizable costs to the economy in the form of delay and unreliability in freight shipments. The highway chokepoints also affect the movement of people. Individual states and localities cannot absorb the full burden of financing the maintenance, operations, and improvements to the highway system that is the foundation of interstate commerce.

It is important to note that each of these examples involves both freight and passenger mobility. It is impossible to separate the freight and passenger transportation issues and our dual-use infrastructure compels us to seek solutions that are beneficial to both. That is why AASHTO made the following recommendation to the National Surface Transportation Policy and Revenue Study Commission:

> Establish a National Rail Transportation Policy. Intercity passenger and freight rail are critical components of the Nation's surface transportation system. Current rail capacity is not sufficient to meet passenger or freight needs. It is imperative that a national rail policy be developed which addresses institutional roles, passenger and freight capacity, and new non-Highway Trust Fund funding and financing options.

We are competing in the global economy, and the health of our national transportation network is critical for our competitiveness.

Growth in trade volume has been substantial and is continuing (see chart). From a transportation perspective, however, what is equally important is the changing trade patterns which affect freight movement. Trade is not simply growing—it is coming from different origins, bound for different destinations, requiring a response to both the growth in volume and the shift in trade patterns. A look at the changes in the ranking of national economies around the world makes clear the challenge of investing in transportation infrastructure that will meet import and export needs in the future. (see chart)

One of the important drivers of the growth of the economies of other nations is infrastructure investment. China and Europe, our two largest competitors and with very different governmental/political systems are carrying out national programs of transportation infrastructure investment in support of their economic objectives. China, with a population of 1.3 billion, is building a 53,000-mile National Expressway System which, when complete in 2020, will rival the 47,000-mile U.S. Interstate Highway System. India, with a population of one billion, is building a 10,000-mile national expressway system. Europe, with a population of 450 million, is spending hundreds of billions of euros on a network of highways, bridges, tunnels, ports, and rail lines.

The United States must significantly increase its financial commitment to her transportation system if we are to remain a world economic power.

State Freight Initiatives

State Departments of Transportation, local governments, and the freight transportation industry have collaborated on many important projects and programs to nudge the freight transportation system into the 21st century. Three of the most notable are the Chicago CREATE program, the FAST Corridor and the Alameda Corridor.

Chicago's CREATE Program—The seven Class I railroads, Amtrak, Metra, the City of Chicago and the State of Illinois are cooperatively planning and financing a program of projects including 15 new overpasses to separate motor vehicles from train tracks, six new overpasses to separate freight-rail trains from passenger-rail trains, and extensive upgrades to tracks, switches, and signals. The program, which costs $1.5 billion will greatly reduce the time needed to transfer freight between the eastern and western railroads and will address the freight and passenger transportation problems arising from 19th century infrastructure operating in the 21st century.

The FAST Corridor—In the Seattle-Tacoma Washington region, the FAST corridor network seeks to tie together overcrowded port, highway, and rail connections at the Nation's third busiest international freight portal. The Puget Sound ports serve the entire nation with up to 75 percent of the containers entering its ports moving to rail with destinations outside of Washington State. More than $60 billion in imports and $12 billion in American exports used the Washington State ports in 2004. The Washington State DOT, the Puget Sound Regional Council, and the freight industry developed and are carrying out a multiyear, multimodal program of projects. Since 1998, the public-private coalition has invested $568 million of public and private funding for strategic freight mobility infrastructure improvements in the FAST Corridor. Another $300 million is needed to complete the remaining 16 of the 25 of the priority Corridor projects.

The Alameda Corridor—The Alameda Corridor is the grandmother of the intermodal connector projects. The ports of Long Beach and Los Angeles handle more than 64 percent of Asian container imports and nearly 25 percent of all U.S. imports. The Alameda Corridor project built a state-of-the art rail access network to the ports. It consists of a 20-mile long rail expressway—basically a large-grade separation project—linking the Ports of Long Beach and Los Angeles to the Nation's rail network near downtown Los Angeles. It consolidated four branch line railroads and eliminated more than 200 at-grade crossings. The financing for the $2.4 billion project, which included a $400 million Federal loan, was backed by a fee on every container moved. Traffic exceeded the projections, making it possible to retire the original Federal loan 28 years early. Trains moving through Corridor in 2006 hauled about 5 million TEUs, up by 32 percent from 2005.

New York State Freight Initiatives

New York exemplifies a multi-modal approach to address to the projected exponential growth in freight.

It is often said that the greatest challenge for freight is the last mile. This is particularly true in major metropolitan areas, where highway congestion is the greatest threat to freight mobility. New York City is one of the most truck dependant major cities in the Nation. This is directly attributable to its geography. New York City is an archipelago—a series of islands. Of the five boroughs, only the Bronx is on the mainland. Goods need to reach this huge consumer market through a very constrained highway, transit and rail network serving both the consumers and the goods that they want. The more we are able to move people by transit, the more scarce urban highway capacity we can make available for trucks. The interrelationship between transit and efficient goods movement is not unique to New York City—it is a factor in every major metropolitan area across the country.

New York is also working with Class I railroads and shortline railroads to improve rail freight service. In our draft statewide rail plan, New York is proposing the following goals for 2020:

- Increase freight market share by 25 percent, reducing growth in truck traffic and energy consumption;
- Increase state investment in intermodal facilities and in "last mile" connections;
- Allow modern freight cars to access the New York metropolitan area and Long Island, eliminating 300,000 truck trips from the region's highways each year;
- Develop at least three new intermodal facilities/inland ports across the state serving the rapidly growing container segment of freight movement;
- Increase the use of rail to transport hazardous commodities, taking advantage of the well-documented safety benefits of rail; and
- Establish the first "green" shortline locomotive fleet in the nation, by deploying a fleet of Low Emission Locomotives. Low emission locomotives have been developed for light duty yard operations. Low Emissions Locomotives can reduce fuel usage by 25 to 35 percent and reduce emissions by up to 80 percent.

New York has a strong commitment to transportation system operations to support the movement of freight. New York, working through the I–95 Corridor Coalition, is undertaking the first multi-agency permanent demonstration and deployment of Commercial Vehicle Infrastructure Integration (CVII) in the Nation. The Vehicle Infrastructure Integration (VII) Program is a cooperative effort between the USDOT, State governments and the automobile industry to develop and test an information technology that uses the most advanced communications technologies to exchange real-time information between the roadside and vehicles to improve safety and mobility. VII systems can warn a driver when it is not safe to enter an intersection, or when a vehicle is following too close behind another vehicle. Vehicles can serve as data collectors and anonymously transmit traffic and road condition information from major roads in the transportation network. Such information can help transportation agencies and emergency responders implement active strategies to reduce congestion and save lives. New York's CVII project, developed under real-world conditions, will involve driver identification and verification using the Transportation Worker Identification Card (TWIC) and biometrics integrated with the operating system of the truck. It will demonstrate and test additional dashboard safety indicators with more direct vehicle safety data such as tire pressure and brake status. It will also provide real-time safety warning to the truck driver such as work zones and speed reduction zones. The New York State CVII will be features at the ITS World Congress in New York City this November.

New York is committed to moving goods safely. Working closely with the New York Motor Truck Association, New York State DOT developed the One Stop Credentialing and Registration system, known as OSCAR, the gateway to New York's motor carrier safety system. Five state agencies collaborated to design a one-stop shopping website which allows the industry a single point of contact to apply, change, pay for, and receive operating credentials for Highway User Tax (HUT), International Fuel Tax Agreement (IFTA) , and International Registration Program (IRP). OSCAR is also the gateway for truckers to apply for oversize/overweight permits, and it provides a link to the Department of Motor Vehicles for commercial driver's licenses.

Finally, New York is working with other states, neighboring Canadian provinces, as well as Federal agencies to address the impacts of land border crossings on the movement of goods within our regional marketplace. We are particularly interested in making sure that the gains of faster travel and fewer tariffs are not lost to the needs of greater security. Transportation supports a global economy. Increased Federal support for infrastructure improvements at major ports of entry for trade and travel is critical to our Nation's ability to compete in the global economy. This includes the major seaports, airports and international border crossings that carry global trade to/from the U.S.

In New York City, the impact of global trade is evident. JFK International Airport ranked first in the Nation in a 2004 ranking of all U.S. freight gateways with $125 billion in shipments. The Port Authority of New York and New Jersey (PANYNJ) handled 4.8 million TEUs (twenty foot equivalent units) in 2005—third-largest in the U.S. after Los Angeles and Long Beach. Of all the U.S. trade by vessel and air ($1,773 billion), 16 percent ($283 billion) moves through the New York-New Jersey region. This trade does not stay within the New York City metropolitan area. It travels throughout the region, the country and around the world. About half of the international cargo at PANYNJ originates from or is destined for locations beyond the 26 county PANYNJ region.

Similarly, nearly one quarter of all U.S. Canadian trade (the largest bilateral trading relationship in the world) passes through New York State's northern and western ports of entry. Nearly 80 percent of this trade either originates in or is destined for states outside of New York.

The Federal Government needs to bear a share in the cost of maintaining and improving transportation access through these facilities in relation to the benefits that accrue to the national economy. Localities should not be solely responsible for the cost of infrastructure at these ports of entry. While the direct impacts are local, much of the benefit of this trade is received elsewhere. Gateway projects can cost hundreds of millions, even billions of dollars. To expect states to fund these improvements through existing resources is unrealistic. There is a national role in funding national benefits.

Multi-State Freight Initiatives: The I–95 Corridor Coalition

Freight has always been a multi-state enterprise and New York is fortunate to be able to collaborate with transportation agencies along the entire Eastern Seaboard on freight issues through the federally-funded I–95 Corridor Coalition. New York was a founding member of the I–95 Corridor Coalition, a coalition of transportation agencies from Maine to Florida plus the Canadian provinces of Quebec and New Brunswick. The 15 states on the I–95 corridor also contain 40,000 national highway system miles, 31,000 miles of rail lines, both freight and passenger, 46 major seaports, and 103 commercial airports.

Population growth and economic growth have put an increasingly heavy burden on all modes of transportation. In response the I–95 Corridor was formed, initially as a means of coordinating on intelligent transportation systems initiatives across states lines. It has evolved into an institution that "provides a forum for key decision and policymakers to address transportation management and operations issues of common interest," with a high priority for relieving congestion on the region's highways by enhancing the capability of other modes to shoulder a greater share of freight movements in the region. The I–95 Coalition has undertaken a number of studies to assess capacity and performance of its highway, rail, and maritime modes. The Coalition is an excellent example of a coordinated effort to address the transportation challenges arising from increasing congestion and constrained capacity in a large region.

Under the auspices of the I–95 Corridor Coalition all modes of transportation within the Corridor have been analyzed. These analyses include the following:

- Highway Bottlenecks Study—Analysis currently in progress will identify the passenger and freight highway bottlenecks that are most severely impacting regional, long-distance travel in the Coalition region.
- Mid-Atlantic Truck Operations Study (MATOps)—Will provide a detailed analysis of truck movements through the Mid-Atlantic region and identify bottleneck/chokepoint locations that impede the flow of truck traffic through the Mid-Atlantic region.
- Mid-Atlantic Rail Operations Study (MAROps)—An examination of rail system performance through the Mid-Atlantic Rail Operations Study (MAROps), involving five states (Delaware, Maryland, New Jersey, Pennsylvania, and Virginia), and three railroads (Amtrak, CSX Transportation, and Norfolk Southern).
- Northeast Rail Operations Study (NEROps)—The Coalition is studying the rail network in New York and the New England states (Maine, New Hampshire, Vermont, Massachusetts, Connecticut, and Rhode Island). The NEROps study is describing the current and future demand for freight and passenger rail service in the region as well as examining the current and planned supply of freight and passenger rail service.
- Southeast Rail Operations Study (SEROps)—The Southeast Rail Operations Study (SEROps) is completing the rail picture in the Coalition region by identifying and describing key rail issues, activities, and initiatives as well as the trends and issues affecting freight movements and freight and passenger rail transportation in the Southeastern states (North Carolina, South Carolina, Georgia, and Florida).
- Short-Sea and Coastal Shipping Options Study—Provided to state DOTs and MPOs a better understanding of how short-sea shipping fits within local, statewide, and regional transportation systems. One of the key outcomes was a preliminary identification of commodity types and general traffic lanes that could be amenable to short-sea shipping operations.

- The most substantial and notable of these analyses has been the Mid-Atlantic Rail Operations Study (MAROps) The study identified over 70 major rail choke points within the Mid-Atlantic rail system. These included:
  - Antiquated and undersized bridges and tunnels.
  - Lack of capacity on critical segments of freight and passenger lines.
  - Inadequate vertical clearances for double-stack container traffic on freight mainlines.
  - Inadequate connections between rail lines. Congested grade crossings, stations, yards, and terminals.
  - Outmoded and inadequate information and control systems.

  The MAROps study defined a 20-year, $6.2 billion program of rail improvements aimed at improving north-south rail transportation for both passengers and freight in the Mid-Atlantic region and helping reduce truck traffic on the region's overburdened highway system. In a follow-up study in 2004, the benefits from the MAROps program improvements were estimated at $12.8 billion—about a 2-to-1 benefit-cost ratio. The benefits included:
  - $2.9 billion in direct shipper benefits due to reduced freight transportation costs;
  - $6.3 billion in direct savings due to reduced highway congestion for vehicles still on the road—$0.8 billion for trucks, $0.7 billion for work-related auto trips, and $4.8 billion for non-work auto trips; and
  - $3.7 billion in indirect economic benefits generated throughout the economy by these transportation savings.

Other State Freight Initiatives

In addition to these well-known initiatives, virtually every state is actively planning, organizing, collaborating and investing to make the freight system more efficient and productive. States are planning, organizing, collaborating, and investing.

Planning—States such as Minnesota, Washington, Ohio, Oregon, California, New Jersey, Vermont, and Virginia have completed or initiated freight transportation to plans as a basis for establishing investment priorities.

Organizing—A number of states have established a unit within their departments of transportation through which to develop and carry out a freight transportation program. They include Louisiana, Maryland, Maine, Pennsylvania, Minnesota, Washington, and Oregon.

Collaborating—Because freight transportation operations and much freight transportation infrastructure lie in the private sector, states are initiating freight advisory committees to strengthen the link with government. They are well-established in Oregon, Colorado, and Minnesota and in the early stages in a number of other states.

Investing—Florida, New York, Virginia, Mississippi, Pennsylvania, Oregon, and California have recently created or expanded freight financing programs that either focus on rail or are available for investments in all freight modes.

States are acting to address the challenges of moving freight more efficiently, economically, and reliably, but our efforts do not aggregate into a national strategy and our resources are not sufficient to meet the national need.

AASHTO Policy Recommendations

We need to move forward as a nation, but to do so with confidence we need a better map. The fact that we agree on the problem (*i.e.,* that we have severe, costly, constraints on efficient freight movement) does not automatically yield a well-funded, strategic nationwide freight investment program. AASHTO's Bottom Line work has produced maps that show the most serious chokepoints for highway, rail, and port landside connections and corridors (maps attached). We need to consolidate this and other analyses into a fully-funded nationwide investment strategy that identifies and stages the investments that will produce the maximum benefit for the national system. This is no small task, but it should be undertaken now. A national strategy, involving Federal, state, and local Governors and the private sector requires a common national understanding to guide investment.

In closing, I want to outline several of AASHTO's policy recommendations.

Surface transportation investment needs to be increased to the levels required to keep the United States competitive in the global economy and meet America's 21st century mobility needs. It means increasing highway and transit funding toward the "cost-to-improve" goal estimated by the U.S. DOT. Expressed in "year of expenditure

dollars" the 2025 goal for highways would be $242 billion per year and transit would be $49 billion per year.

The only way those levels of funding can be achieved, is for all levels of government—Federal, state, and local—to continue to fund their historical shares of what is needed. Over the past decade the Federal Government has provided approximately 45 percent of highway and transit capital funding, while 55 percent has been provided by state and local governments. A significant increase in Highway Trust Fund revenues will be required to avert a major cutback in highway and transit funding, restore the program's purchasing power, and enable future improvements.

AASHTO also supports an increase in Federal transportation funding assistance to states and their local governments through tax credit bonding. This mechanism could be particularly helpful new source of Federal revenue to allow states to make investments in rail passenger and freight improvements.

AASHTO supports additional Federal Government financing for freight-related investments, including freight gateways, connectors, corridors, and border crossings. With state involvement, AASHTO also supports tax incentives for new investment in freight-rail infrastructure by rail companies, with state involvement, and funding to states for participation in public-benefit rail improvements.

As a nation, we must ultimately transition to a diversified portfolio of Federal revenue sources. We must examine, analyze, and select alternative funding mechanisms to meet the financial needs of the Nation's transportation systems into the foreseeable future. A comprehensive, sustainable, diversified portfolio of Federal revenue is needed to address the diverse investment needs of the Nation's surface transportation system, *i.e.,* its highways, transit systems, railroads, and ports.

Because freight moves irrespective of local, state, and national borders the Federal Government should provide support for a multi-state/regional investment mechanism to fund and finance improvements to regionally and nationally significant freight projects, where costs are in a single state, but benefits accrue to several states.

The Federal Government should encourage the private sector to invest in operational and capacity improvements that can relieve freight bottlenecks and improve the flow of goods and services. The Federal Government should also provide support for state efforts to relieve critical freight chokepoints through investment in projects such as truck lanes and intermodal connectors.

AASHTO's Board has also concluded that the states, in collaboration with the freight transportation industry and the Federal Government, should investigate the feasibility of regional adjustments in truck size and weight in particular corridors that demonstrate important economic benefits and meet safety, pavement/bridge impact and financing criteria.

Given the realities of the current state of the Highway Trust Fund and the necessity to maintain and improve the existing infrastructure through the core programs currently authorized by SAFETEA–LU, revenues for major freight investments such as those identified above will necessarily be derived from sources other than the current fuel tax. We should calculate the value that freight transportation adds to the economy and devise means of tapping that value for the needed capital investment.

Mr. Chairman, Members of the Committee, the importance of the subject you have under discussion today would be hard to exaggerate. It is in the interest of us all to take on the challenge as vigorously and effectively as we can. On behalf of the AASHTO member states, I promise that we will work with you in that effort.

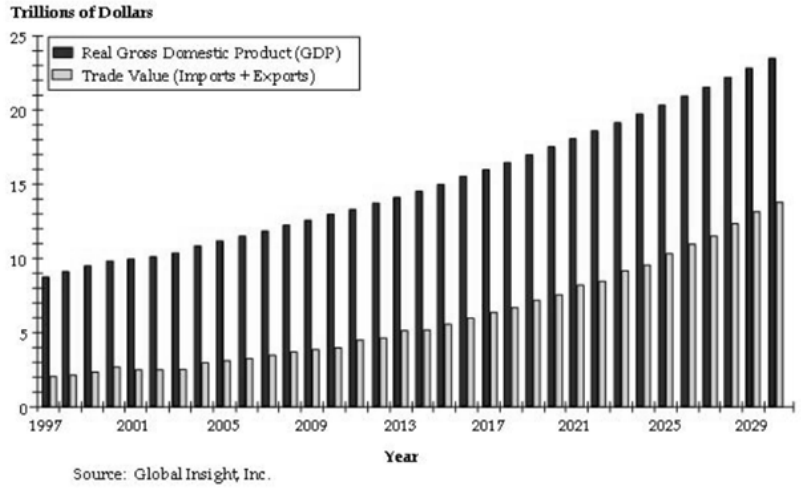
CHARTS

Freight Demand by Tons and Ton-Miles 2005 to 2035

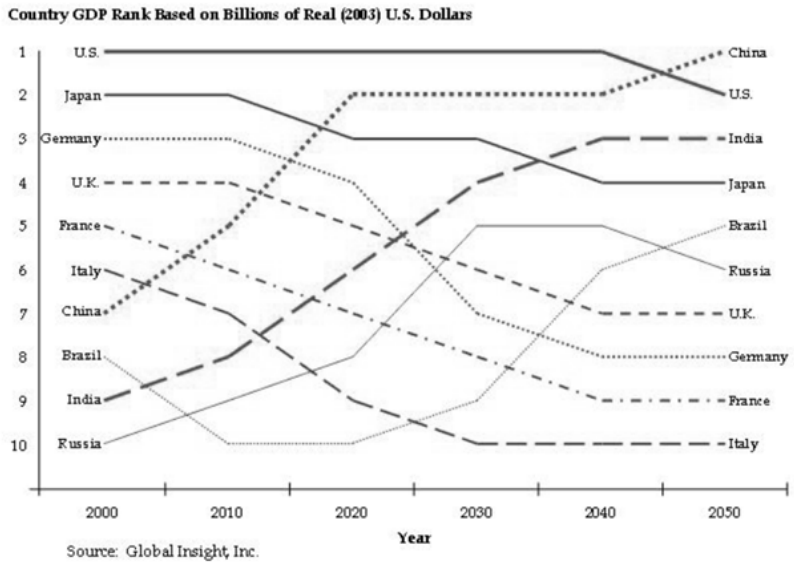
	2005	2015	2025	2035
Freight Tons				
Air, truck, rail, and water	15.3 Billion	19.0 Billion	23.0 Billion	29.0 Billion
Growth from 2005		23.5%	50.1%	88.9%
Modal Shares of Tonnage				
Air	0.1%	0.1%	0.1%	0.1%
Other (pipeline, multiple modes)	1.3%	1.3%	1.2%	1.1%
Water	7.4%	7.0%	6.5%	6.0%
Rail	14.2%	14.2%	13.5%	12.8%
Truck	77.1%	77.4%	78.7%	80.1%
Total	100.0%	100.0%	100.0%	100.0%
Freight Ton-Miles [a]				
Air, truck, rail, and water	5.84 Trillion	7.12 Trillion	8.70 Trillion	11.23 Trillion
Growth from 2005		22%	49%	92%
Modal Shares of Ton-Miles				
Air	0.3%	0.3%	0.3%	0.3%
Other	2.7%	2.7%	2.4%	2.0%
Water	11.4%	10.6%	9.6%	8.4%
Rail	25.1%	25.7%	25.1%	24.1%
Truck	60.6%	60.7%	62.6%	65.2%
Total	100.0%	100.0%	100.0%	100.0%

Source: Global Insight, Inc., TRANSEARCH 2004, with Global Insight economic forecasts.

Value of U.S. Global Trade Compared to U.S. GDP



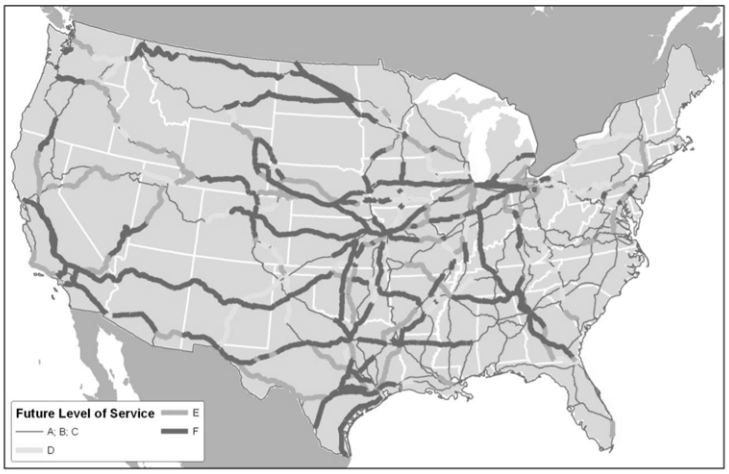
Projected GDP Growth Rates for Top Ten Global Economies



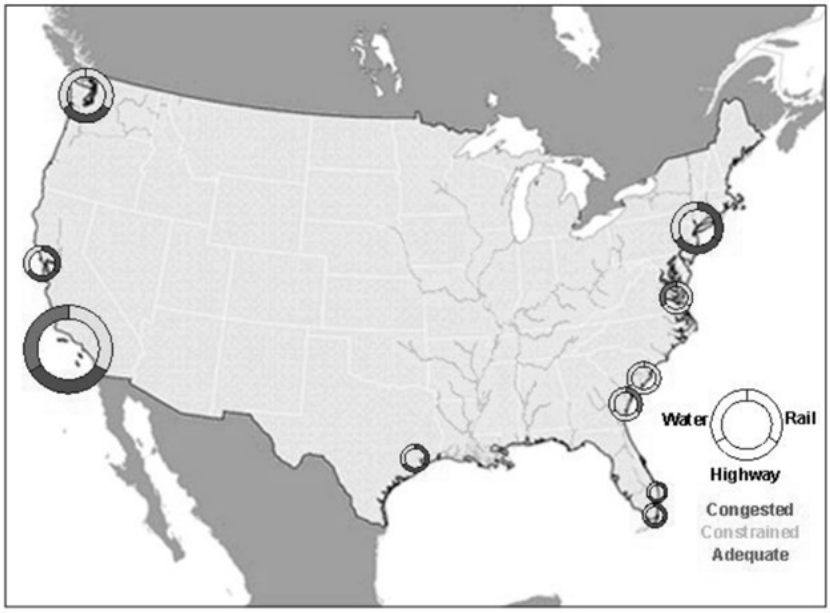
Source: Global Insight, Inc.

Major Freight-Truck Bottlenecks
2004

Future Rail Corridor Volumes Compared to Current Corridor Capacity
2035 without additional investment



Approximate Water, Rail, and Highway Access Conditions at Top U.S. Container Ports



AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

Freight Transportation Policy

Basic Propositions

- Efficient and reliable freight transportation is critical for global economic competitiveness and essential for domestic economic prosperity and an improving quality of life.
- International trade as a percentage of the Nation's GDP has doubled in the last two decades and will increase by at least another 50 percent by 2020, adding to the volume of freight, the distance of freight trips, and significant change and volatility in origins and destinations of freight traffic.
- In recent years a number of "red flag" events have demonstrated that the Nation's freight transportation system requires immediate, sustained, and significant action.
- The infrastructure capacity—physical and operational—of all modes of transportation has not expanded with increasing demand and will fall far short of meeting future demands of freight transportation.
- Substantial investment and improved operations by both private business and government will be required to avert even more severe capacity constraints.
- State and local transportation officials are confronted with the challenge of providing infrastructure to address large and shifting traffic increases generated by ports, inland terminals and mega-distribution centers.
- States are central to the effort to strengthen the national freight transportation system as a result of their ownership and management of the highway system that carries the largest portion of freight and makes the essential connections to the other modes.
- States are increasingly engaged and active in response to the freight transportation challenge and their efforts should be strengthened and expanded.
- SAFETEA–LU contains a number of authorizations important for freight transportation which should be implemented in a coordinated and energetic fashion.
- Investment in the major elements of the freight transportation system—highway, rail, port, waterway, and air—through current programs must be increased, but these programs will not be sufficient to meet the need.
- New sources of revenue and new forms of financing must be developed and deployed.
- The Federal Government should be responsible for the "national" benefits share of investment resulting from trade agreements, international ports, border crossings, major national freight transportation gateways, and substantial security requirements mandated for freight facilities.
- New forms of Public-Private and Public-Public Partnerships will be needed to address challenges that do not conform to government jurisdictions, geographic boundaries, or the traditional dividing line between government and business.
- Plans and projects for freight transportation investments must fully incorporate environmental, community-impact, land use and energy considerations.

Senator LAUTENBERG. Thank you very much, Ms. Glynn.

Mr. Hamberger, your testimony, please.

STATEMENT OF EDWARD R. HAMBERGER, PRESIDENT AND CEO, ASSOCIATION OF AMERICAN RAILROADS

Mr. HAMBERGER. Mr. Chairman, thank you, and Members of the Subcommittee, thank you for the opportunity to be here on behalf of the Association of American Railroads and our member rail companies.

Before I begin, I'd just like to make three points outside of my prepared remarks, Mr. Chairman. Number one is—and I do this with great sensitivity—I need to correct your chart. We just got in the 2007 numbers. In 2007 freight railroads averaged 436 miles per gallon. That is to say, we on average moved one ton of freight 436

miles on one gallon of fuel. So I hate to disagree with the Chairman, but I thought that we better update the data.

Senator KLOBUCHAR. That's always a good way to start.

[Laughter.]

Mr. HAMBERGER. Yes. I was sitting here pondering what to do.

Senator LAUTENBERG. Correcting the record is not uncommon around here.

Mr. HAMBERGER. Number two, I would like to point out for the subcommittee, if you haven't gotten the news, that the UTU has notified me this morning that they did ratify the agreement with the freight railroads, so we now have over 95 percent of our employees with a contract and we're very pleased that over 85 percent of UTU members have voted to ratify that contract.

Third, while this is a hearing about freight, in my written testimony I touch on it, but I would be remiss with the House right now taking up the Amtrak authorization bill—at least I hope right now they're taking it up—and your leadership of this Committee has led to the passage of the Amtrak authorization bill.

At $135 a barrel, this country has to take advantage of the inherent efficiency of steel wheel on the steel rail. It's efficient to get 436 miles per gallon on the freight side, but it's just as efficient on the passenger side. We need policies that provide enough capacity for both freight and passenger rail. I hope in the months and years to come we can talk more about that as well. But I've already used up half of my time.

But anyway, if I can get back to the freight issue and the issue of this hearing. The National Surface Transportation Policy Commission did note in its recent report that congestion is affecting every mode of surface transportation for lengthy periods each day as a result of the mismatch between supply and demand of limited capacity.

Freight railroads are not exempt from that assessment. 2006 was the best year on record, 2007 the second best year on record in terms of commodities flowing over the freight rail system. Today we carry twice as much freight per route mile as we did in 1990. This has led to capacity constraints along the rail network and all forecasts project increases in demand. The Department of Transportation forecast is 88 percent by the year 2035.

To meet that demand, it is clear that we will have to invest in expanded capacity, we're going to have to do a number of things, and we've already begun doing those. One is hiring new employees, 11,000 more employees today than just 3 years ago. New technology has been deployed to increase capacity, including more sophisticated signaling systems, higher capacity freight cars, and more powerful locomotives. We've also entered into alliances with our customers and with each other to improve utilization and the efficiency of the freight flows.

But ultimately, at the end of the day it all comes down to money. We are going to have to invest to expand capacity, and we've been doing that. Since 1980 the industry has spent $420 billion on infrastructure and equipment. That includes maintaining and expanding the infrastructure. That is 40 cents out of each revenue dollar goes into capital expenditures or maintenance expenditures.

To place that into perspective, each of the two largest freight rail companies spends more to maintain and improve their track and roadway than all but three of Secretary Glynn's members at AASHTO spend on their State highway programs. The next two largest railroads would be ranked in the top ten in comparison to what an individual State spends on its highway network.

The ability of the railroads to continue investing obviously will depend upon their ability to make an adequate rate of return. As the Congressional Budget Office noted in its report 2 years ago, profits are key to increasing capacity because they provide both the incentive and the means to make those new investments.

In order to meet the projected demand, Cambridge Systematics did a study for the Department of Transportation report which estimated that $148 billion will need to be spent on capacity expansion alone, not maintaining, not replacing, capacity expansion, between now and the year 2035, just to maintain the freight rail market share.

The Cambridge Systematics report projects that all of that money will probably not be coming from the freight railroads. We believe that there is a role for government to play because of the public benefits of moving freight by rail. Those benefits include fuel utilization, less CO_2 emissions, and obviously congestion mitigation.

Because of the public benefits, I would like to suggest a couple of policies that Congress may consider.

Senator LAUTENBERG. Your full statement will be in the record and in order to move things along I would ask you if you have a few-second summary.

Mr. HAMBERGER. I will wrap up very quickly, thank you, Mr. Chairman. One would be enactment of the infrastructure tax credit, which Senator Smith is a lead sponsor; enactment of the short line rail investment tax credit; encouragement of public-private partnerships, such as the FAST Corridor, the Alameda Corridor; and four, do no harm, that is do not enact policies that would prevent railroads from earning the very money needed to invest at a time we need to invest it.

Thank you and I apologize for running over.

[The prepared statement of Mr. Hamberger follows:]

PREPARED STATEMENT OF EDWARD R. HAMBERGER, PRESIDENT AND CHIEF EXECUTIVE OFFICER, ASSOCIATION OF AMERICAN RAILROADS

Introduction

On behalf of the members of the Association of American Railroads (AAR), thank you for the opportunity to discuss strategies for efficient freight movement. AAR members account for 75 percent of U.S. freight railroad mileage operated, 92 percent of employees, and 95 percent of revenue.

Comprehensive, reliable, and cost-effective freight railroad service is critical to our Nation. Today, freight railroads account for more than 40 percent of U.S. intercity ton-miles—more than any other mode of transportation—and serve nearly every industrial, wholesale, retail, agricultural, and mineral-based sector of our economy. And in the words of the former Railways Adviser at the World Bank, "Because of a market-based approach involving minimal government intervention, today's U.S. freight railroads add up to a network that, comparing the total cost to shippers and taxpayers, gives the world's most cost-effective rail freight service."

Looking ahead, the United States cannot prosper in an increasingly-competitive global marketplace if our freight is not delivered efficiently and cost effectively. Having adequate freight rail capacity is critical to this effort. Freight railroads must be

able to both maintain their extensive *existing* infrastructure and equipment and build the substantial *new* capacity that will be required to transport the significant additional traffic our economy will generate.

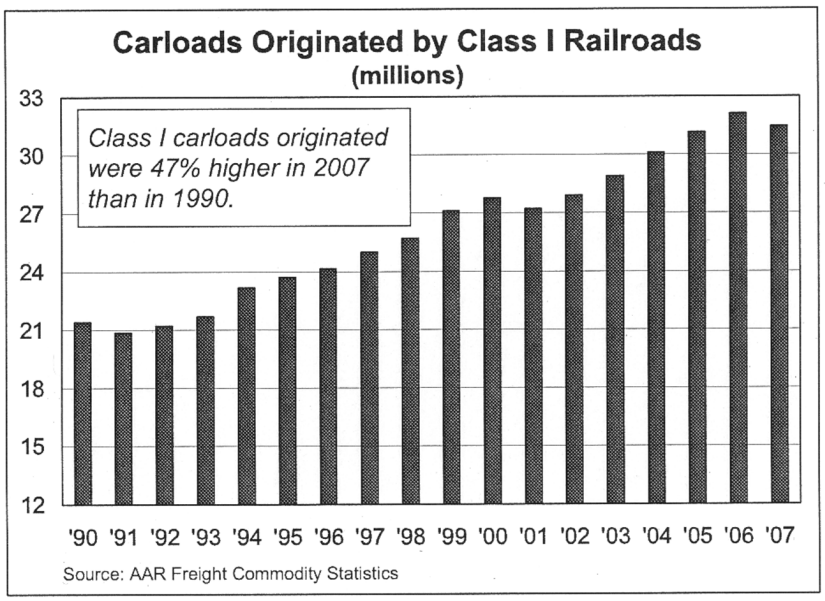
I respectfully suggest that Members of this Committee, your colleagues in Congress, and other policymakers have critical roles to play. Indeed, a primary obligation of policymakers is to take steps that assist—and, just as importantly, not take steps that hinder—railroads in making the investments needed to provide the current and future freight transportation capacity our Nation requires.

Capacity is a Challenge Everywhere in Transportation, Including on Railroads

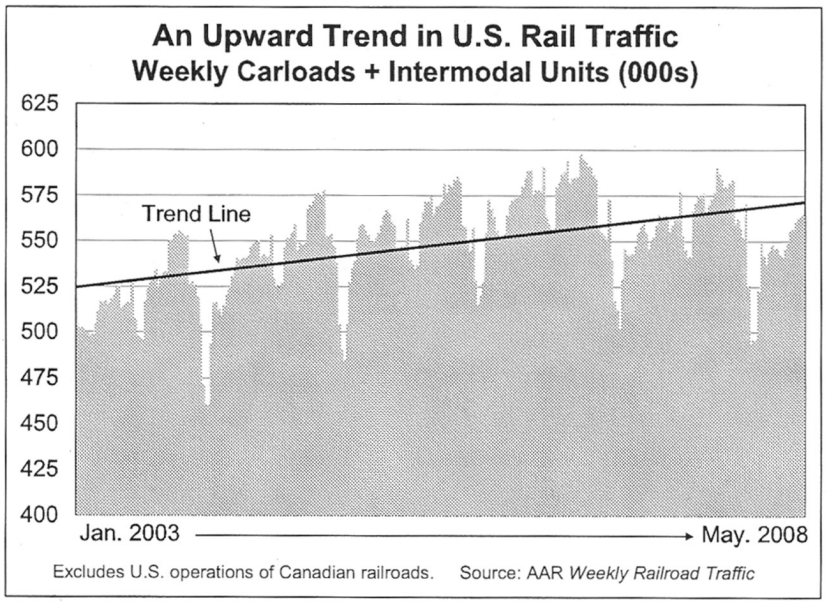
As the National Surface Transportation Policy and Revenue Study Commission noted in a recent report, "Congestion [is affecting] every mode of surface transportation for ever-lengthening periods each day, as a result of the mismatch between demand and supply of limited capacity." [1]

To be sure, there is a tremendous amount of strength and flexibility in our Nation's transportation systems, and the freight is still being delivered by all of the modes. But it is clear that all freight transportation modes are facing capacity challenges today.

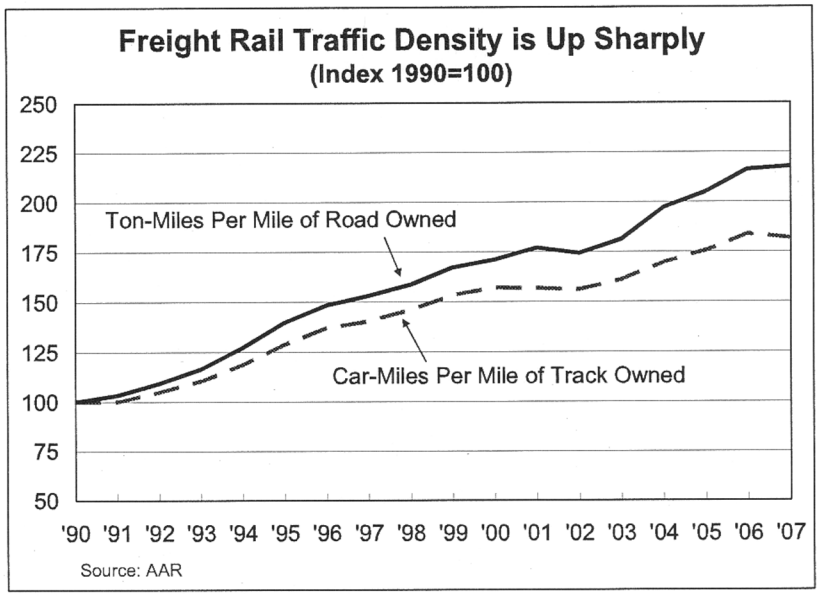
Freight railroads face capacity challenges thanks largely to substantial and sustained increases in rail traffic. From 1990 to 2007, Class I tons originated rose 36 percent, carloads originated rose 47 percent, and revenue ton-miles rose 71 percent. In each successive year from 1998 through 2006, Class I railroads originated more tons than ever before. Growth in intermodal traffic—truck trailers and shipping containers traveling on rail cars has been especially rapid. Beginning with the second quarter of 2002, U.S. rail intermodal traffic rose for 20 consecutive quarters, sometimes by double-digit amounts compared with the same period in the previous year.



[1] *Report of the National Surface Transportation Policy and Revenue Study Commission,* Volume 1, p. 4.



There was a slight decline in rail traffic in 2007, due mainly to the severe problems in the housing and automotive sectors. Even so, railroads operating in the United States moved more freight in 2007 than in any previous year except 2006.

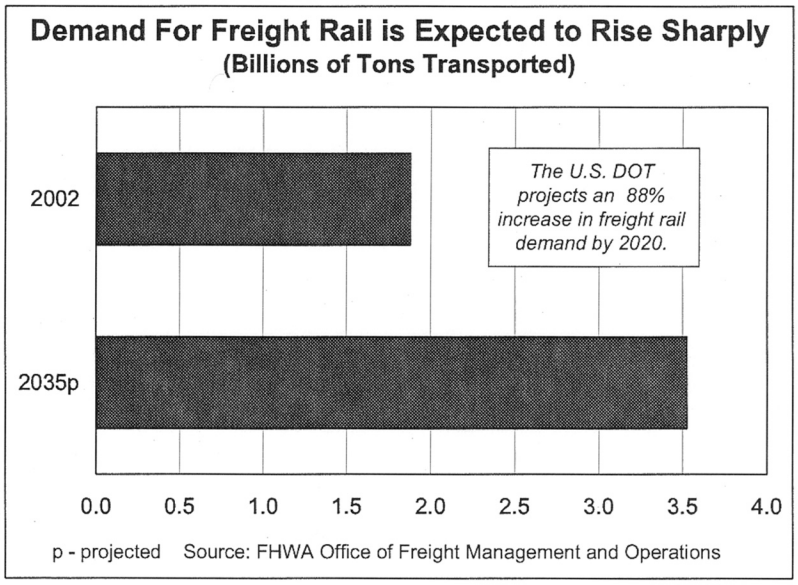


As a result of these substantial traffic increases, average freight rail traffic density has increased sharply. Just from 1990 to 2007, Class I car-miles per mile of track owned rose approximately 82 percent; revenue ton-miles per mile of road owned rose some 118 percent.

The increase in traffic and traffic density have led to capacity constraints on some rail corridors and points on the rail network. Railroads may differ in the degree to which their capacity is constrained, but there is no question that there is much less room on the U.S. rail network today than there was even a few years ago.

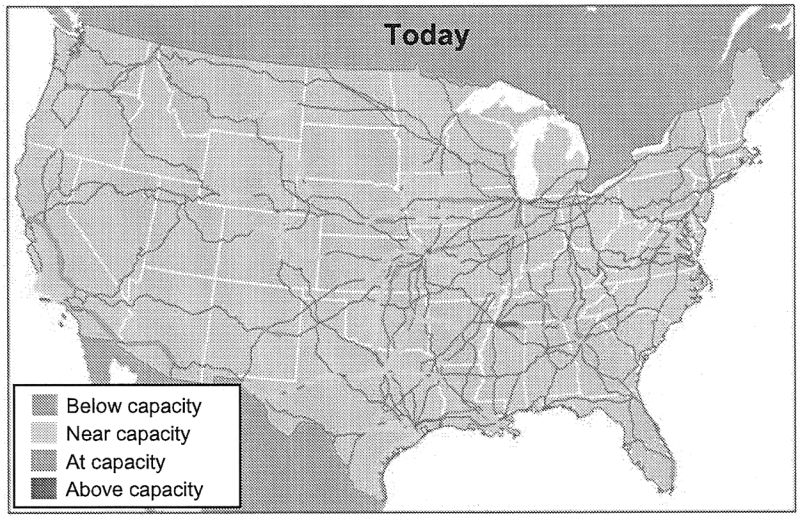
In recent years, solid growth in the economy (the current slowdown notwithstanding) and population, improved rail service offerings, expanding international trade, increasingly-congested highways, sharply higher fuel prices, and other factors have pushed more and more freight to railroads. Even when taking into account the current lessened traffic demand due to the present economic conditions, analysts generally expect market forces to continue to encourage more freight to move by rail in the years ahead.

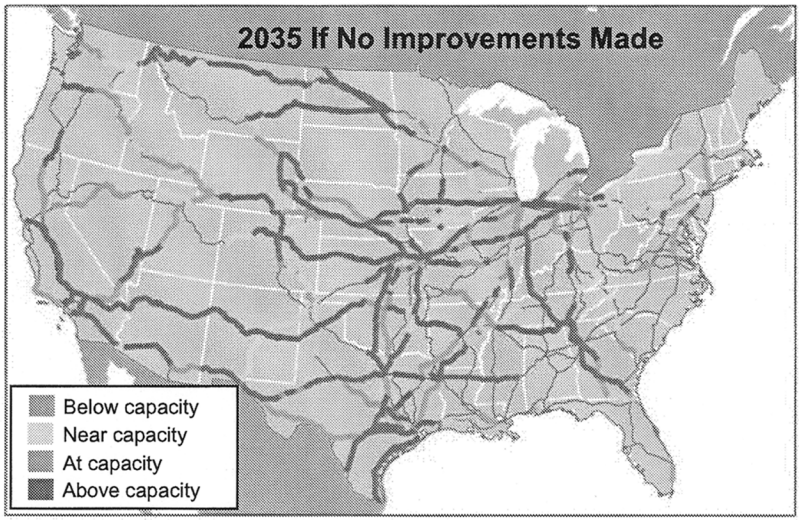
As a result, the long-term forecast is for freight rail traffic to trend steadily higher. For example, Global Insight recently projected a 28 percent increase in U.S. freight rail tonnage from 2006 through 2018. The U.S. Department of Transportation recently forecast that freight railroad demand will rise 88 percent by 2035. If the increase in rail traffic in the 15 years following 2007 simply matches the rate of growth over the comparable period prior to 2007, by 2021 Class I carriers will be originating more than 41 million carloads—up from 31.5 million in 2006.



The magnitude of the looming freight rail capacity issue was also borne out by a recent study by Cambridge Systematics, a prominent economic and transportation consulting firm. The purpose of the study, which focused on 52,000 miles of primary rail corridors, was to estimate the cost of the expansion in capacity necessary for U.S. freight railroads to handle the 88 percent increase in freight rail traffic forecast by the DOT for 2035, assuming no gain in rail's market share of intercity freight movements.

The study found that if rail capacity needs are not properly addressed, by 2035 some 16,000 miles of primary rail corridors—nearly one-third of the 52,000 miles covered in the study—will be so congested that train flows would be unstable and congestion and service delays would be persistent and substantial. Because the rail system is so interconnected, this outcome would mean that the entire U.S. freight rail system would become, in effect, disabled.





The significance of the network aspects of rail operations cannot be overemphasized. As rail lines are operated at or near full capacity, efficiency (including operational predictability) becomes more critical. Service disruptions caused by inefficient asset utilization can have impacts not only on the railroad involved but potentially throughout the entire rail network.

All of this means that the characteristics of the U.S. freight railroad industry today are significantly different than they were in the past, when traffic levels were much lower and capacity was rarely an issue. The rail network faces capacity challenges now and could face a capacity crisis in the future if the necessary investments are not made. Looking ahead, as their traffic continues to grow, railroads will increasingly need to concentrate on building new capacity and finding ways to better utilize their existing capacity—while continuing to maintain existing capacity at high standards.

Railroad Networks Are Extremely Complex to Plan and Operate

In 2006 (the most recent year for which data are available), the approximately 560 U.S. freight railroads originated 36.5 million carloads of freight—equal to approximately 100,000 carloads, on average, every day of the year. Each day, dozens

of different types of freight cars are used to haul a huge variety of products between thousands of different origin and destination pairs on journeys that might be only a mile or two—or could cover several thousand miles.[2]

And unlike other network industries which transmit fungible products (*e.g.,* electricity is the same, no matter who generates it) or products that can readily be routed to particular customers using automated equipment (*e.g.,* electronic signals for telecommunications), railroads must move specific railcars carrying specific commodities from specific origins to specific locations. Railroads can accomplish this only because they devote enormous resources to plan and operate their networks to meet their customers' needs safely and efficiently.

Different Train Types Create Different Demands on the Rail Network

Managing the current and future use of rail network capacity is an extraordinarily complex process that involves a wide variety of elements. These include current and expected traffic volumes; the types of trains to be moved (*e.g.,* unit trains vs. manifest trains, passenger trains vs. freight trains, etc.), their speed, and priority status; the quantity and quality of available assets; the availability of funds for new investments; pertinent laws and regulations; and much more. Sophisticated analytical processes (*e.g.,* advanced computer modeling) help railroads understand and incorporate many of these factors into rail decisionmaking. No computer program, though, is sophisticated enough to incorporate everything that could impact how well a rail network runs at any point in time. Thus, railroads depend critically on the experiences and judgment of their employees.

The mix of train types determines the speed and spacing of trains on a track. All else equal, a corridor that serves a single type of train can usually accommodate more trains per day than a corridor that serves a mix of train types. Trains of a single type can be operated at similar speeds and with more uniform spacing between the trains, in part because they have similar braking and acceleration capabilities. This increases the total number of trains that can operate over a track segment each day. When trains of different types—each with different length, speed, and braking characteristics—share a track segment, greater spacing is required to ensure safe braking distances and accommodate different acceleration rates. As a result, the average speed drops and the total number of trains that can travel over the corridor is reduced.

Moreover, different train types and customer segments have different service requirements. For example, premium intermodal movements demand high levels of delivery reliability, timeliness, and speed; bulk trains (*e.g.,* coal or grain unit trains) may need consistent, managed service with coordinated pick-up and delivery, but high transit speed is often less important; customers who own or manage their own fleet of freight cars may require railroads to undertake network strategies which help them minimize these costs, such as maximizing the number of annual loaded trips rail cars make; passenger trains require high speed and reliability within a very specific time window; and so on. In addition, a railroad must be able to move empty freight cars through the network in a manner which positions them to provide service based on continually-changing levels of customer demand.

The extent to which all of these sometimes-conflicting demands seek to use the same portions of the rail network defines the complexity of the management problem. The more complex the demand base, the greater the mixture of differing train types; the more complex network management will be; and the greater the required capacity investment.

Rail Network Planning

Like firms in every other industry, railroads have limited resources. Their ability to meet customer requirements is constrained by the extent and location of their infrastructure (both track and terminal facilities); by the availability of appropriate equipment and employees where they are needed; and by the availability of funds necessary to augment what they already have. The constraints railroads face—particularly those involving their physical network—cannot be changed quickly. It can take a year or more for locomotives and freight cars to be delivered following their

[2] Rail traffic is not uniformly distributed each day, so on some days considerably more than 100,000 carloads are originated. In fact, the carloadings on the heaviest business day of the busiest season may exceed by 40 percent those of the lightest business day of the lightest season. The variance is caused in roughly equal parts by seasonal demand and the five-day work week of most rail customers. These demand variations have a significant impact on rail capacity requirements.

order; 6 months or more to hire, train, and qualify new employees; and several years to plan, permit, and build new infrastructure.[3]

In light of these factors and many more, railroads must design effective operating plans that meet customer requirements within the confines of the physical constraints they face.

The complexity of such a plan is enormous. For example, it must incorporate the differing types of demand placed on various portions of a network, as well as the changes in that demand. Sometimes these changes evolve over several (or more) years and are based on changes in underlying markets—*e.g.,* the emergence of the Powder River Basin as the premiere source of domestic coal, the growth of imported goods from the West Coast, or the development of ethanol markets. At other times, these changes are relatively sudden—brought on, for example, by natural events (*e.g.,* floods or hurricanes), economic factors (*e.g.,* export surges due to a weaker dollar), or the loss or gain of traffic flows of a major customer or group of customers through plant openings or closings or the competitive bidding process. Sometimes these changes can be foreseen; at other times, they are wholly unexpected.

A railroad's operating plan must allocate this demand across a network that has terminal processing constraints (*e.g.,* the number of yard tracks, locomotive facilities, configuration, etc.); line-haul capacity constraints (*e.g.,* number of main tracks and crossover points between them; location and frequency of sidings; types of signaling systems; speed limits; connections with other routes; etc.); locomotive availability (*e.g.,* the number, their horsepower, availability of support facilities for fueling and maintenance, etc.); and employee constraints (*e.g.,* number, location, crew support facilities, equipment maintenance and servicing personnel, etc.).

On every major railroad, all of these factors must be combined to develop a plan to move traffic safely and efficiently 24 hours per day, every day of the year.

Sophisticated computer models are available to assist in the network planning process. However, these simulation results must be interpreted and validated by knowledgeable railroad personnel who use their judgment and experience as to what works and what does not.

Because of its complexity, the development of a new network operating plan to accommodate substantially-changed conditions typically takes months or years, not days or weeks. (However, refinement of an existing plan is a continuous improvement process.) In essence, the overall planning process must create a number of "mini plans" for each of the various train types (such as premium intermodal, international intermodal, coal, grain, other bulk, automotive, manifest, local, passenger, etc.) that overlay and share the physical network. Each network use plan also attempts to bring resolution to the thousands of competing customer interests that make daily use of the railroad resources.

Managing an Operating Plan

Implementing and managing an operating plan in the field is also challenging. When dealing with networks of this complexity, even the best plans will have gaps that must be filled with the managerial experience of knowledgeable personnel. Moreover, the operating situation is always fluid—day-to-day fluctuations in volume, weather, crew and equipment availability, and more can have an enormous impact on the ability of a railroad to manage to the dictates of its operating plan. Even in the best operation, trains may be late (or early), customers may not release cars on time, bad weather may ensue, grade crossing accidents may happen, and delays may occur.

Although operating plans often build in some flexibility, where possible, to accommodate these variances, no plan can either predict or accommodate all eventualities for all portions of a rail network. Moreover, accommodation is much more difficult when capacity is constrained. In fact, when capacity is tight, disruptive incidents are more common and recovery takes longer than when the network is not fully utilized. And because the rail system truly is a network, disruptions in one portion of the system can quickly spread to distant points.[4]

The need for safe operations trumps everything else, and proper line maintenance is essential for safe rail operations. However, the need for maintenance adds still another level of complexity to rail planning. In fact, because of higher rail volumes and a trend toward heavier loaded freight cars, the maintenance of the rail network has become even more important. Railroads have no desire to return to the days

[3] Railroads typically have a number of projects far enough along in the planning process that construction can be initiated quickly if funding become available.

[4] Unlike airline networks, where the period after midnight can usually be used to recover from the previous day's problems, a rail network operates 24 hours a day. Thus, incident recovery must be accomplished while current operations are ongoing.

when maintenance "slow orders" (speed restrictions below the track's normal speed limit) were one of the most common causes of delay on the rail network. That's why one of the most important parts of any railroad operating plan is the accompanying maintenance plan with which it is integrated, and minimizing the impact of maintenance disruptions on rail operations is one of the major reasons for the additional main track capacity that is being added to the rail network today.

Terminals and their operation are another key consideration for preserving fluidity in a rail network. A train may operate without delay over a segment of main line. However, if it cannot enter a terminal due to congestion, then it must remain out on the main line or in a siding where it could block or delay other traffic. The ability of a terminal to hold trains when necessary and to process them quickly is one of the key elements in preventing congestion and relieving it when it does occur. Thus, one of the most important factors in increasing capacity for the rail network is enhancing the fluidity of terminals.

Unfortunately, terminals are often one of the more difficult areas in which to add capacity. They are frequently in, or near, urban areas. Expansion generally means high land and, potentially, high mitigation costs. And as discussed further below, even in less urban areas, a rail terminal is rarely considered positive by nearby residents, and its development or expansion to accommodate freight capacity growth is usually the subject of intense debate.

Four-Stage Railroad Capacity Upgrade Process

Railroads typically have four stages in the process of upgrading their capacity. They are explained sequentially below, but in actual practice tend to be used in parallel:

1. *Identify and implement process changes that can enhance capacity.* This includes a wide variety of steps, such as redesigning the railroad's transportation and operation plans (described above); redesigning, negotiating, and implementing new interchange plans with connecting railroads; redesigning yard and terminal operations; working with customers to improve their inbound or outbound flow processes; changing a maintenance plan; redesigning the process utilized to inspect and maintain equipment, rethinking and implementing new freight car distribution strategies; and redeploying locomotives for more effective utilization.

   Some of these process improvements can be designed and implemented in weeks or months. Others may require a year or more.

2. *Develop and deploy improved information technology and processes for utilizing that technology.* This includes improvements in such areas as dispatching and control systems; terminal management systems; maintenance planning systems; transportation planning systems; work assignments; locomotive and freight car monitoring; track defect identification and diagnostic systems; and locomotive maintenance management systems. Some of these improvements too can be implemented in only a few months, while others are more complex and may take several years to develop and implement.

3. *Acquire and deploy assets that can be used "flexibly."* This includes assets such as locomotives, freight cars, and higher-capacity maintenance machinery. These items are not restricted to any particular portion of the rail network, but can be deployed where and when needed. Trained employees are perhaps the most important of the "flexible" assets. Equipment usually requires at least 6 months to acquire, often after many additional months of planning and design; employees usually require at least 6 months to train.

4. *Adding more infrastructure, or "iron in the ground."* This represents long-term assets that, once in place, cannot be redeployed elsewhere. Usually, they take at least 1 year to deploy, and frequently take three to 10 years to plan, design, permit, and build.

   These include projects such as main line capacity additions (*e.g.,* new main tracks, sidings, and signal systems); new terminal capacity (*e.g.,* intermodal and automotive terminals, freight classification yards, locomotive and freight equipment repair and servicing facilities); large scale upgrades of choke points in urban areas (such as the Alameda Corridor and the series of Kansas City "flyover" projects); new customer access routes; major bridge additions or rebuilds; improving tunnel clearances; and improvements in connectivity between different portions of the rail network.

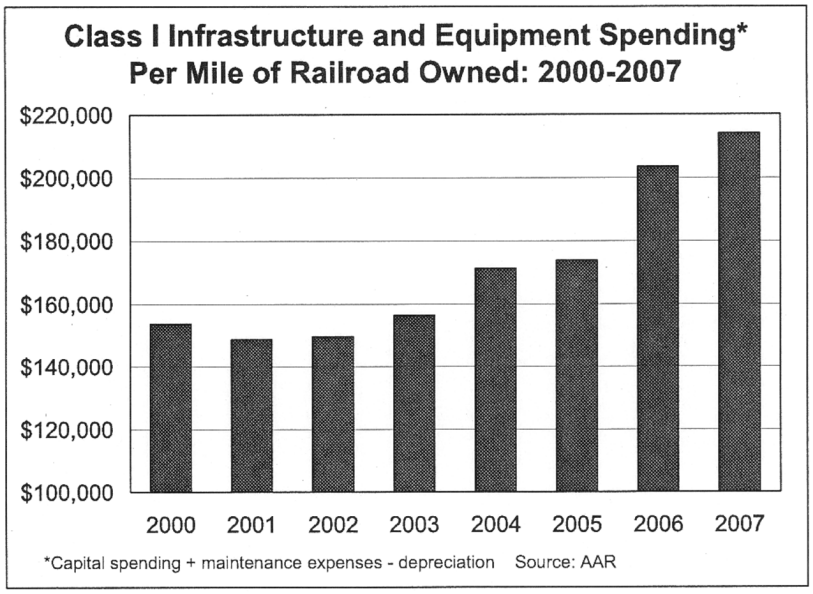
Railroads Are Working on a Variety of Fronts to Increase Capacity

Railroads are committed to working to meet present and projected transportation demands by addressing the host of factors that influence the fluidity and resiliency

of their operations, as well as the operations over the entire rail network. Examples of the railroads' efforts are described below.

Spending on Infrastructure and Equipment

Of the many different factors that affect how well a rail network functions, the basic amount and quality of infrastructure and equipment are among the most significant. For this reason, U.S. freight railroads have been expending, and will continue to expend, enormous resources to improve their asset base. In fact, rail spending for these purposes has never been higher than in recent years, demonstrating the diligence with which railroads are responding to the capacity issue.



Class I capital spending in 2007 was $9.2 billion. In 2003, by contrast, Class I capital spending was $5.9 billion. In addition, in recent years substantially higher percentages of rail investments have been directed to expanding capacity. If maintenance expenses are included in addition to capital spending, from 1980 through 2007, U.S. freight railroads have invested approximately $420 billion—more than 40 cents out of every revenue dollar. In 2006 and 2007, Class I railroads alone devoted more than $19 billion per year to these purposes.

Class I Spending on Infrastructure and Equipment ($ billions)

	Infrastructure				Equipment				Total Infrastructure & Equipment			
	Capital Spending	Mainten. Expenses	Deprec.	Total	Capital Spending	Mainten. Expenses	Deprec.	Total	Capital Spending	Mainten. Expenses	Deprec.	Total
2003	$4.6	$5.8	$2.4	$8.0	$1.3	$7.3	$1.1	$7.6	$5.9	$13.1	$3.5	$15.5
2004	$4.9	$6.4	$2.7	$8.6	$1.3	$7.9	$1.1	$8.1	$6.2	$14.3	$3.8	$16.7
2005	$5.4	$6.5	$3.1	$8.8	$1.0	$8.1	$1.2	$7.9	$6.4	$14.6	$4.3	$16.7
2006	$7.0	$6.8	$3.2	$10.6	$1.5	$8.5	$1.2	$8.7	$8.5	$15.3	$4.5	$19.3
2007	$6.9	$7.2	$3.4	$10.7	$2.2	$8.6	$1.4	$9.5	$9.2	$15.8	$4.8	$20.2

Numbers may not add due to rounding. Source: AAR analysis of individual railroad R-1reports to the STB

The following is just a sampling of the diverse types of capacity-enhancing investments individual Class I railroads have recently made or will soon be making:

- *BNSF* plans a $2.45 billion capital commitment program for 2008, including leasing 200 locomotives at a cost of around $400 million and $200 million in track and facility expansion. The 2008 capacity expansion program comes after a record capacity expansion program in 2007. Major 2008 capacity expansion programs include continuing to double- or triple-track the Southern Transcon route, including a second main line across Abo Canyon in New Mexico; continuing to install double-track on a major coal route in Nebraska and Wyoming;

expanding intermodal facilities in Kansas City, Los Angeles, and Memphis; and adding sidings between Fort Worth and Houston.

- *Canadian National* plans capital spending of around $1.5 billion in 2008, including approximately $1.1 billion on track infrastructure, $140 million on equipment, and approximately $250 million on transload facilities and distribution centers to grow the business. More than $300 million in rail infrastructure projects will be in the United States. Among many other projects, CN plans to complete the multi-year $100 million upgrade of the Johnston Yard in Memphis.
- *Canadian Pacific* plans capital spending of $885 million to $895 million in 2008, about equal to what the railroad spent in 2007. Funds will go to freight cars, locomotives, track renewal, and other key areas.
- *CSX* plans $5 billion in capital spending from 2008 to 2010. The railroad plans to spend some $200 million each year for the next 3 years on new locomotives and more than $100 million per year on freight cars, mainly for coal and automotive traffic. Infrastructure projects include terminal expansions in Atlanta, Buffalo, Charlotte, and Jacksonville, as well as a new intermodal terminal in northwest Ohio.
- *Kansas City Southern* plans capital expenditures of approximately $500 million in 2008. KCS also plans to spend about $65 million to buy 30 new locomotives for U.S. operations.
- *Norfolk Southern* plans to spend, in 2008, approximately $1.5 billion on capital investments (an increase of $148 million, or 11 percent, over 2007). Investments in 2008 will include a new locomotives and freight cars; the construction or expansion of facilities in Columbus and Maple Heights, Ohio; and major investments in expansion projects related to the Heartland Corridor (from the East Coast to the Midwest) and the Crescent Corridor (which will link the Northeast, Mid-Atlantic, and Central Southeast).
- *Union Pacific* plans to invest a total of $3.1 billion for capital projects in 2008. Major investment categories include $840 million to increase network and terminal capacity, especially on coal, ethanol, and intermodal routes and in the Houston region. UP also plans to invest $1.6 billion to maintain and strengthen track infrastructure; $490 million to upgrade the locomotive and freight car fleet, including the acquisition of 175 high-horsepower locomotives and new covered hoppers; and $170 million to upgrade information technology systems.

The massive investments railroads must make in their systems reflect their extreme capital intensity. Railroads are at or near the top among all U.S. industries in terms of capital intensity. In fact, from 1997 to 2006 (the most recent year for which data are available), the average U.S. manufacturer spent 3 percent of revenue on capital expenditures. The comparable figure for U.S. freight railroads was 17 percent, or more than five times higher. Likewise, in 2006, railroad net investment in plant and equipment per employee was $662,000—nearly eight times the average for all U.S. manufacturing ($84,000).

Capital Expenditures as a % of Revenue for Various U.S. Industries: Avg. 1997-2006

Average all manufacturing	**3%**
Food manufacturing	2%
Petroleum & coal products mfg.	3%
Machinery manufacturing	3%
Motor vehicles & parts mfg.	3%
Wood product mfg.	3%
Fabricated metal product mfg.	3%
Chemicals manufacturing	4%
Plastics & rubber products mfg.	4%
Paper manufacturing	4%
Computer & electr. product mfg.	5%
Nonmetallic mineral product mfg.	5%
Electric utilities	13%
Class I Railroads	**17%**

Note: Utilities are 1999-2006
Source: U.S. Bureau of the Census, AAR, EEI

As a further illustration of the magnitude of rail infrastructure spending, the four largest Class I railroads spend far more on capital outlays and maintenance of track and roadway than the vast majority of state highway agencies spend on their respective highway networks. For example, only the highway agencies of Texas, Florida, and California spend more on roadway capital and maintenance than Union Pacific and BNSF each spend on their networks. CSX and Norfolk Southern are in the top ten compared with all states.

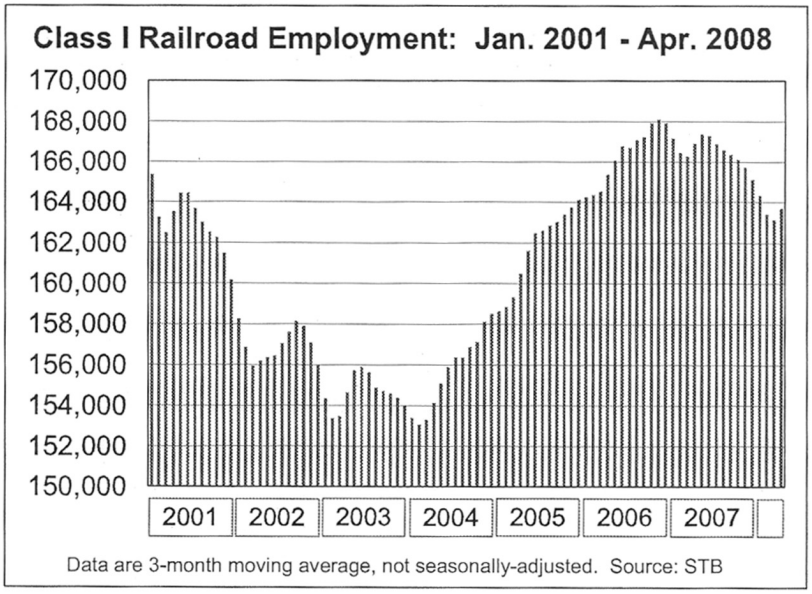
RR Spending on Way & Structures vs. State Highway Agency Spending: 2006 ($ billions)

		Total
1.	Texas	$7.57
2.	Florida	$5.69
3.	California	$4.19
	Union Pacific	**$4.17**
	BNSF	**$3.89**
4.	New York	$3.59
5.	Pennsylvania	$3.30
6.	Illinois	$3.30
	CSX	**$2.62**
7.	Michigan	$2.61
8.	North Carolina	$2.48
9.	Ohio	$2.14
	Norfolk Southern	**$2.12**
10.	Georgia	$1.88

Data include capital outlays and maintenance expenses. Sources: FHWA Highway Statistics Table SF-12 and AAR analysis of R-1 annual reports.

Hiring New Employees

In addition to equipment and infrastructure, personnel are a key determinant of rail capacity, and railroads have been aggressively hiring and training new employees. Class I railroads had 11,000 more employees in December 2007 than in December 2003, when the industry began to reverse a decades-long trend of fewer employees. The number of "train and engine" employees—mainly engineers and conductors who operate trains—was up 11 percent during this period, the number of maintenance of track and structures employees was up 5 percent, and the number of maintenance of equipment employees was up 7 percent.



Infusion of Technology

Technology has always played a key role in expanding rail capacity. Signaling systems have become more sophisticated; trains have become longer and heavier; locomotives have become more powerful and more reliable; and track structures have become more robust and thus less prone to outages for maintenance or because of failure.

Freight railroads have always been at the forefront in the use of computers and information technology, and today railroads are rapidly expanding their use of these technologies to improve overall efficiency and the fluidity of their operations, thereby adding capacity without adding more infrastructure.

For example, railroads use advanced computer modeling software in a wide variety of rail applications, from automating rail grinding schedules and improving customer demand forecasting to optimizing yard operations. CN, for example, is implementing what it calls "SmartYard," complex computer software that identifies and analyzes every possible combination and outcome for sequencing cars in a large classification yard and simultaneously updates and communicates the car processing plan. The result is more efficient, faster yard operations. Other railroads are engaged in similar efforts.

Recognizing that another way to add capacity is to move more trains faster over the same length of track, railroads are also working with their suppliers to design, implement, and improve innovative computerized "trip planning" systems. These highly-complex systems automatically incorporate and analyze a mix of ever-changing variables (*e.g.,* crew and locomotive availability, terminal congestion, the different priority status of loads of freight, track conditions, maintenance plans, weather, etc.) to optimize how and when cars are assembled to form trains, when those trains depart, and how they are sequenced across the railroad in conjunction with the other trains that are operating.

Trip-planning systems, electronically-controlled pneumatic (ECP) brakes, train control systems, heavy-axle load research, and advanced rail car and track defect detector systems are just a few of the many technological tools that railroads are using to improve equipment "cycle time"—*i.e.,* the total time it takes for a freight car to be loaded, hauled to destination, unloaded, returned to the same or a different shipper, and loaded again. These tools also increase the capacity of rail mainlines by allowing more precise braking, reducing the number of rail cars required to move a given amount of freight, and dramatically decreasing train delays due to equipment or track maintenance problems.

The benefits of increased efficiency can be seen through the results of rail efforts to "supersize," automate, and increase the velocity of traffic flows where practical. For example, railroads have offered trainload service to grain customers who have built high-speed "shuttle loader" elevators, which dramatically improve the efficiency of transporting grain by rail. At BNSF, for example, a typical grain car in shuttle service hauls approximately three times as much grain over the course of a year as a car in non-shuttle service.

Expanded over a network, this type of operational efficiency can free up substantial capacity for other uses. Union Pacific, for example, has estimated that a one mile-per-hour increase in system-wide velocity frees approximately 250 locomotives, 5,000 freight cars, and 180 train and engine employees to move additional traffic.

Cooperative Alliances and Collaborations

Railroads are also entering into cooperative alliances with each other and with their customers to improve capacity utilization, lower costs, and improve service.

As just one example, in October 2007, Norfolk Southern and Union Pacific announced new westbound intermodal train service that will shorten by a day the trip for standard intermodal freight from the southeastern United States to Los Angeles. This shift began with the completion of the first phase of improvements on the Meridian Speedway—Norfolk Southern's and Kansas City Southern's joint venture corridor between Meridian, Mississippi, and Shreveport, Louisiana. In establishing this route, the railroads shortened the trip length by 130 miles compared to moving freight via the Memphis gateway.

Challenges to Freight Mobility and Capacity Expansion

The preceding section details many of the ways that railroads are diligently addressing the capacity issue. However, there are a number of serious impediments to meeting the rail capacity challenge which in many cases have prevented, delayed, or significantly increased the expense of realizing the desired capacity improvements.

The National Surface Transportation Policy and Revenue Study Commission, in its final report released in January 2008, stated that, "Simply put, the Commission believes that it takes too long and costs too much to deliver transportation projects, and that waste due to delay in the form of administrative and planning costs, inflation, and lost opportunities for alternative use of the capital hinder us from achieving the very goals our communities set."[5] The Commission's point often applies to rail infrastructure expansion projects, including projects that involve little or no public financial participation.

Under existing law, a comprehensive regulatory regime preempts state and local regulations (with the exception of local health and safety regulations) that unreasonably interfere with railroad operations. Moreover, detailed environmental reviews, when required, identify the impacts of railroad infrastructure projects and determine necessary mitigation measures.

Nevertheless, often some members of the affected local communities still oppose many rail expansion projects, and their opposition tends to be quite vocal and sophisticated. Trains do make noise, rail operations may at times be disruptive to those who live or work nearby, and the regional or national benefits of rail freight service are often not readily apparent to, or deemed important by, the local population. Even those who recognize the benefits of rail freight service may prefer that railroads run their trains near somebody else's building or through some other town. In many cases, railroads face a classic "not-in-my-backyard" problem.

In the face of local opposition, railroads try to work with the local community to find a mutually satisfactory arrangement. These efforts are usually successful. When agreement is not reached, however, projects can face seemingly interminable delays and higher costs. For example, Norfolk Southern had to endure almost 5 years of delay and uncertainty before it was allowed to construct and begin oper-

[5] *Report of the National Surface Transportation Policy and Revenue Study Commission,* Volume 1, page 11.

ating its terminal in Austell, Georgia, needed to handle rapidly-increasing intermodal traffic within the region. More recently, Union Pacific continues to suffer delays in double-tracking its Sunset Corridor in Arizona due to issues with a state agency.

Often, local communities allege violations of environmental requirements to challenge the proposed project. Railroads understand the goals of environmental laws, and appreciate the need to be responsive to community concerns, but community opposition to rail operations can serve as a significant obstacle to railroad infrastructure investments, even when the opposition has no legal basis.

These types of delays can have significant negative affects on the costs of rail projects, and, in turn, the ability of railroads to respond to service requests. Based on railroad cost index data from the AAR, just in the 5-years from the first quarter of 2003 through the first quarter of 2008, railroad wage rates rose 15 percent, wage supplements (fringe benefits, such as health insurance for employees) rose 11 percent, and the cost of materials and supplies (which includes such items as rail, crossties, and ballast) rose 52 percent.

Railroads will continue to advocate that the time required for these review processes be shortened without adversely affecting the quality of that result, but until that happens, rail expansion projects will often be delayed unnecessarily.

Today's Earnings Pay for Tomorrow's Capacity

As described above, the railroads are diligently doing everything they believe to be prudent to maintain and expand their capacity to provide service, including committing record levels of investment.

However, it is important to note that because U.S. freight railroads are overwhelmingly privately owned and must finance the vast majority of their infrastructure spending themselves, capacity investments are accompanied by substantial financial risk. As the Government Accountability Office noted in a recent report, "Rail investment involves private companies taking a substantial risk which becomes a fixed cost on their balance sheets, one on which they are accountable to stockholders and for which they must make capital charges year in and year out for the life of the investment."[6] Accordingly, railroad capacity investments must pass appropriate internal railroad investment hurdles—*i.e.,* the investments will be made only if they are expected to generate an adequate return.

For this reason, adequate rail earnings are critical for capacity investment. As the Congressional Budget Office (CBO) has noted, "As demand increases, the railroads' ability to generate profits from which to finance new investments will be critical. Profits are key to increasing capacity because they provide both the incentives and the means to make new investments."[7] If a railroad is not financially sustainable over the long term, it will not be able to make capacity investments to maintain its existing network in a condition to meet reasonable transportation demand, or make additional investments in the replacement or expansion of infrastructure required by growing demand.

To be sure, railroads in recent years have achieved financial results that are much better than their results since the 1970s. In 2006, U.S. railroads carried more freight than ever before, and their net income was higher than ever before as well. The railroads enjoyed relatively good financial results in 2007 as well.

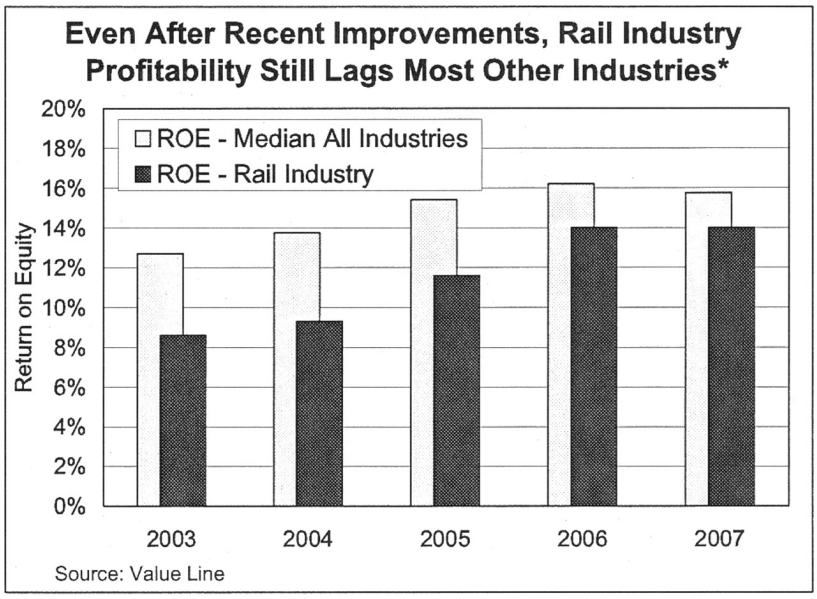
But these financial results need to be kept in context. Statements about railroads' "record profits" often ignore the fact that rail profitability in earlier years was relatively poor. Thus, an improvement from earlier years may be a "record," yet still fall short of the earnings achieved by most of the other industries against which railroads compete for capital. In fact, that is the case with the rail industry. Rail industry profitability has consistently lagged most other industries—and that is still the case today.

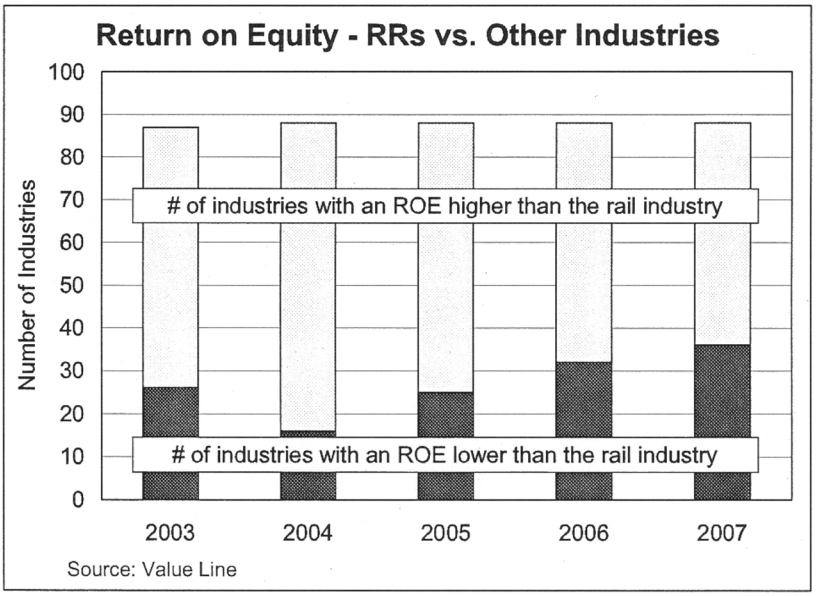
Return on equity (ROE) is a common profitability measure. According to data compiled by Value Line (a financial information firm), the ROE for the U.S. freight rail industry in 2006 was 14.0 percent—possibly the best ROE it has ever had. (Value Line's railroad universe includes BNSF, CSX, CN, CP, KCS, NS, UP, and Genesee & Wyoming.) By contrast, the median ROE in 2006 for the 89 industries (encompassing around 1,700 firms) for which Value Line calculates ROE was 16.2 percent—16 percent higher than the rail figure. In fact, in 2006 railroads ranked tied for 57th among the 89 industries for which Value Line calculates ROE. Value

[6] Government Accountability Office, *Freight Railroads: Industry Health Has Improved, but Concerns About Competition and Capacity Should Be Addressed,* October 2006, p. 56.

[7] Congressional Budget Office, *Freight Rail Transportation: Long-Term Issues,* January 2006, p. 11.

Line data for 2007 indicate that the railroad median (14.0 percent) again fell well short of the median for all industries (15.8 percent).





In other words, while recent years may have been the best financial years ever for railroads, they have not been sufficient to bring railroads even to the mid-point among all industries, and the need for financial sustainability is as pronounced today as ever before—especially in view of the projected investment requirements the industry will be facing.

According to the Cambridge Systematics study noted earlier, an investment of $148 billion in 2007 dollars (of which $135 billion is for Class I railroads) will be necessary for rail infrastructure expansion to keep pace with economic growth, meet the DOT's forecast demand, and maintain (but not grow) rail's current market share. That expenditure is in addition to the hundreds of billions of dollars necessary over this period to maintain and replace existing rail infrastructure, and to maintain and replace locomotives, freight cars, and other equipment.

Class I railroads are anticipated to be able to generate (through earnings growth from the additional traffic and productivity gains) only $96 billion of the $135 billion needed for new capacity identified by the Cambridge Systematics study. That leaves a funding shortfall that could be covered by tax incentives for rail infrastructure investments, public-private partnerships, or other means.

Railroads will continue to spend significant amounts of their own funds to address the capacity challenges described above. However, they are, and will continue to be, unable to pay for all of the capacity that would be required to serve all shippers' needs all of the time. Since the amount of rail capital available for investment is limited, investment decisions in these circumstances focus on which investments to choose between, rather than solely whether a specific investment should be made. In such cases, those investment decisions should be based on projected returns that will most favor the long-term sustainability of the rail network.

Public Involvement in Freight Rail Infrastructure Investment

Freight railroads will continue to spend massive amounts to improve and maintain their systems. But even with their improved financial performance, funding constraints will likely prevent railroads from meeting optimal future rail infrastructure investment needs entirely on their own. This funding shortfall means that many rail projects that would otherwise expand capacity and improve the ability of our Nation's farms, mines, and factories to move their goods to market; speed the flow of international trade; relieve highway congestion; reduce pollution; lower highway costs; save fuel; and enhance safety will be delayed—or never made at all.

I respectfully suggest that it is in our Nation's best interest to ensure that optimal freight railroad capacity enhancements are made. Policymakers can help address the rail capacity funding gap in several ways:

- *Rail Infrastructure Tax Incentives.* S. 1125/H.R. 2116 (the "Freight Rail Infrastructure Capacity Expansion Act of 2007) calls for a 25 percent tax credit for investments in new track, intermodal facilities, yards, and other freight rail infrastructure projects that *expand* rail capacity. All businesses that make capacity-enhancing rail investments, not just railroads, would be eligible for the credit.

  The budgetary cost of a rail infrastructure tax credit (ITC) would be about $300 million per year, but the stimulatory benefit to the economy would be much greater. U.S. Department of Commerce data indicate that every dollar of freight rail infrastructure investment that would be stimulated by a rail infrastructure ITC would generate more than $3 in total economic output because of the investment, purchases, and employment occurring among upstream suppliers. We estimate that new rail investment induced by a rail ITC would generate approximately 20,000 new jobs nationwide.

  The AAR gratefully acknowledges the support many members of this committee have shown toward S. 1125, and congratulates them on recognizing that a rail ITC addresses the central challenge of how to move more freight without causing more highway gridlock or environmental degradation.

- *Short Line Tax Credit.* Since 1980, more than 380 new short lines have been created, preserving thousands of miles of track (much of it in rural areas) that may otherwise have been abandoned. In 2004, Congress enacted a 50 percent tax credit ("Section 45G") for investments in short line track rehabilitation. The focus was on assisting short lines in handling the larger and heavier freight cars that are needed to provide their customers with the best possible rates and service.

  Since the enactment of Section 45G, hundreds of short line railroads rapidly increased the volume and rate of track rehabilitation and improvement programs. For example, the replacement of railroad ties, a key component of handling heavier cars, has increased by half a million ties per year in both 2005 and 2006 as a result of the credit. Unfortunately, Section 45G expired in 2007. Pending legislation in Congress (S. 881/H.R. 1584, the "Short Line Railroad Investment Act of 2007") would extend the tax credit and thus preserve the huge benefits it delivers.

- *Public-Private Partnerships.* Public-private partnerships (PPPs) reflect the fact that cooperation is more likely to result in timely, meaningful solutions to transportation problems than a go-it-alone approach. Without a partnership, projects that promise substantial public benefits in addition to private benefits are likely to be delayed or never started at all because it would be too difficult for either side to justify the full investment needed to complete them. In contrast, if a public entity shows it is willing to devote public dollars to a project based upon the public benefits that will accrue, the private entity is much more likely to provide the private dollars (commensurate with private gains) necessary for the project to proceed.

  Partnerships are not "subsidies" to railroads. Rather, they acknowledge that private entities should pay for private benefits and public entities should pay for public benefits. In many cases, PPPs only involve the public contributing a portion of the initial invest-ment required to make an expansion project feasible—with the railroad responsible for funding all future maintenance to keep the infrastructure productive and in good repair.

  Perhaps the most extensive rail-related public-private partnership envisioned today is the *Chicago Region Environmental and Transportation Efficiency Program* (CREATE), a $1.5 billion project involving the State of Illinois, the City of Chicago, and major freight and passenger railroads serving the region. CREATE's goal is to modernize and improve transportation in the region by separating tracks and highways to speed vehicle travel and reduce congestion and delays for motorists; updating track connections and expanding rail routes to reduce transit times; and adding separate, passenger-only tracks in key locations to remove bottlenecks that have slowed passenger and freight movements in the region for decades. The $330 million first stage of CREATE recently got underway.

- *Say No to Reregulation.* Prior to 1980, decades of government over-regulation had brought U.S. freight railroads to their knees. Bankruptcies were common, rates were rising, safety was deteriorating, and rail infrastructure and equipment were in increasingly poor condition because meager rail profits were too low to pay for needed upkeep and replacement. Recognizing the need for change, Congress passed the Staggers Rail Act of 1980, which partially deregulated the rail industry.

  The record since Staggers shows that deregulation works. Since 1981, rail traffic is up 95 percent, rail productivity is up 163 percent, and average inflation-adjusted rail rates are down 54 percent. And rail safety is vastly improved—the train accident and employee injury rates have plunged since Staggers. Our privately-owned, largely deregulated freight railroads competing fairly in the transportation marketplace have produced the best freight rail system in the world. It is the best for shippers in price and service; best for employees in compensation and safety; and best for the public in reduced pollution and highway gridlock.

  Despite the severe harm excessive rail regulation caused prior to Staggers and the enormous benefits that have accrued since then, legislation has been proposed—most recently, S. 953/H.R. 2125 (the so-called "Railroad Competition and Service Improvement Act of 2007") in the 110th Congress—that would reregulate railroads.

  Reregulation is bad public policy and should be rejected. It would prevent railroads from earning enough to make the massive investments a first-class rail system requires. Under reregulation, rail earnings, and therefore rail spending on infrastructure and equipment, would plummet; the industry's existing physical plant would deteriorate; needed new capacity would not be added; and rail service would become slower, less responsive, and less reliable.

  By perpetuating the myth that service to a shipper by a single railroad is equivalent to unconstrained market power, proponents of reregulation ignore the reality that railroads face extensive competition for the vast majority of their business—including when a customer is served by only one railroad. Railroads do not oppose competition. The truth is, there is plenty of it out there already, either between two or more railroads, from trucks and barges, or from other competitive forces. And where the marketplace cannot support more than single railroad service, legal safeguards exist to protect against anti-competitive railroad behavior.

  The current system of rail regulation works. It allows shippers to pay the lowest possible rates consistent with a privately-owned rail system. It makes no sense to destroy the best freight rail system the world has ever seen in order to move

toward a discredited system that failed in the past and would fail again in the future.

Public investment in freight rail infrastructure projects is justified because the extensive benefits that would accrue to the general public by increasing the use of freight rail would far exceed the costs of public participation. For example:

- *Fuel efficiency*—Railroads are three or more times more fuel efficient than trucks. In 2007, railroads moved a ton of freight an average of 436 miles per gallon of fuel. If just 10 percent of the long distance freight that moves by highway moved by rail instead, fuel savings would exceed one billion gallons per year.
- *Greenhouse Gas Emissions*—Greater use of freight rail offers a simple, inexpensive, and immediate way to meaningfully reduce greenhouse gas emissions without harming the economy. Because of railroads' fuel efficiency, every ton-mile of freight that moves by rail instead of trucks reduces greenhouse gas emissions by two-thirds or more.
- *Highway congestion*—Highway gridlock already costs the U.S. economy more than $78 billion per year just in wasted fuel and time, according to a study by the Texas Transportation Institute. But because a typical train takes the freight of several hundred trucks off our highways, freight railroads reduce highway gridlock, the costs of maintaining existing highways, and the pressure to build costly new highways.
- *Pollution*—The EPA estimates that for every ton-mile of freight carried, a train typically emits substantially less nitrogen oxides and particulates than a truck.
- *Safety*—Fatality rates associated with intercity trucking are eight times those associated with freight rail transportation. Railroads also have lower employee injury rates.

The American Association of State Highway and Transportation Officials (AASHTO) has noted that "Relatively small public investments in the Nation's freight railroads can be leveraged into relatively large benefits for the Nation's highway infrastructure, highway users, and freight shippers."[8] The Congressional Budget Office (CBO) has also concluded that public investment in rail infrastructure should be considered: "Another way of addressing the underpayment of infrastructure costs by railroads' competitors is to provide financial assistance to the railroads." Echoing AASHTO, CBO observed that, "[p]roviding Federal aid for a rail investment might be economically justified if the net social benefits were large but the net private benefits to railroads were insufficient to induce them to make such an investment.[9]

Passenger Railroads and Freight Railroad Capacity

Our Nation's privately-owned freight railroads are successful partners with passenger railroads all across the country. Around 97 percent of the 22,000 miles over which Amtrak operates are owned by freight railroads, and hundreds of millions of commuter trips each year occur on commuter rail systems that operate at least partially over tracks or right-of-way owned by freight railroads.

Freight railroads recognize the potential national benefits of a strong national passenger rail system. The key question is: under what circumstances can freight and passenger interests advance this worthy goal?

As noted earlier, because of substantial and sustained traffic increases, U.S. freight railroads are moving more freight than ever before, and demand for freight rail service is projected to grow sharply in the years ahead. Passenger rail growth would come on top of growth in freight traffic. That's why, going forward, capacity will likely be the single most important factor determining our ability to provide the high quality rail service that will be essential for both freight and passengers.

While recognizing existing Amtrak statutory authority regarding use of freight railroad-owned facilities, the AAR has developed principles which we believe should govern new passenger rail use of freight-owned facilities:

- Freight railroads should not be forced to give passenger railroads access to their property; rather, access should be voluntarily negotiated.
- Freight railroads should be fully compensated for the use of their assets by passenger trains.

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[8] AASHTO, *Freight Rail Bottom Line Report,* p. 1.

[9] Congressional Budget Office, *Freight Rail Transportation: Long-Term Issues* (January 2006), p. 22.

- Freight railroads should be adequately protected from liability.
- Freight railroads should not be asked to pay for capacity increases needed to accommodate passenger service.

These principles are grounded in the tremendous importance of freight railroads to America's producers and consumers. Freight railroads lower shipping costs by billions of dollars each year and produce an immense competitive advantage for our farmers, manufacturers, and miners in the global marketplace. If passenger railroads impair freight railroads and force freight that otherwise would move by rail onto the highway, those advantages would be squandered. Moreover, highway gridlock would worsen; fuel consumption, pollution, and greenhouse gas emissions would rise; and our mobility would deteriorate—outcomes that are completely contrary to the goals of expanding passenger rail in the first place.

As part of its work, the National Surface Transportation Policy and Revenue Study Commission received a report from the Passenger Rail Working Group (PRWG), which provided a long-term vision for passenger rail development in this country. The authors of that report should be commended for helping policymakers focus on the important issue of intercity passenger rail. Freight railroads appreciate that the PRWG concurs that passenger rail progress must be complementary to—not in conflict with—freight rail development.

We believe that future passenger rail initiatives, especially on the scale envisioned by the PRWG, will increasingly require separate assets dedicated to passenger operation, rather than the incremental initiatives most typical of past passenger rail expansion. This more visionary approach would enable faster and more reliable passenger service, and would minimize the substantial operational, engineering, legal, and other impediments that often hinder the ability of freight railroads to accommodate passenger trains.

This approach will be costly, but so will any approach to meaningfully enhancing passenger rail. Policymakers must understand that no passenger system in the world pays for its operating and capital expenses solely from the fare box. But there are substantial public benefits from high-speed intercity passenger rail. Freight railroads believe that the public benefits of a truly attractive and competitive national passenger rail capability will exceed public costs, and look forward to working with all appropriate parties to make those benefits a reality.

Conclusion

America today has the best freight rail network in the world. Still, it is clear that rail capacity will have to increase as the economy and population expand in the years ahead. Railroads are working hard to ensure that adequate capacity exists to meet our future freight transportation needs. Meanwhile, policymakers can help by instituting targeted tax incentives for projects that expand rail capacity, engaging in more public-private partnerships for freight rail infrastructure projects, and ensuring that the legislative and regulatory structure under which railroads operate is conducive to further investment in rail capacity.

Senator LAUTENBERG. Thank you very much.

Mr. Larrabee?

STATEMENT OF REAR ADMIRAL RICHARD M. LARRABEE, (RET.), U.S. COAST GUARD; DIRECTOR OF COMMERCE, PORT AUTHORITY OF NEW YORK AND NEW JERSEY

Mr. LARRABEE. Chairman Lautenberg, Ranking Member Smith, distinguished Members of the Committee: Thank you for the invitation to testify today. I appreciate the opportunity to provide some insight into improving the efficiency of future freight movement. My name is Richard M. Larrabee. I'm the Director of Port Commerce for the Port Authority of New York and New Jersey. In this capacity I'm responsible, along with other private and public partners, for the promotion, protection, and development of the Port of New York and New Jersey, which includes facilities in both New York and New Jersey.

The Port Authority is a bi-state agency which oversees not just seaports, but also other transportation facilities, such as airports,

bridges, and tunnels, and rapid transit commuter systems. From this unique perspective, we have the benefit of a macro view of how different modes of transportation interrelate and work to strengthen the region while moving people and goods safely and efficiently. We also recognize the importance of increasing costs of modernizing and rebuilding infrastructure to ensure continued economic expansion.

With a 4 percent growth last year, the Port of New York and New Jersey outperformed many of the major ports throughout the country. We believe our continued growth is due in part to our location as a gateway to the largest, most affluent consumer market in North America. But location and marine terminals capacity alone will not be able to sustain the movement of over 5 million TEUs a year.

We link increased cargo movement through our port facilities to our strategic investments in port infrastructure, investments in dredging, rail, road, and in some cases in our terminals themselves.

Since September 11, 2001, when formulating the Port Authority's budget our focus first and foremost has been on security. Second is maintaining a state of good repair for our facilities. Once funding for these two items is allocated, only a small fraction of the budget remains for capital investments and new initiatives. We prioritize these projects, focusing on alleviating choke points along the supply chain.

With this in mind, we have embarked on a 10-year $2 billion capital plan to continue to ensure that our facilities in the port are able to handle the forecasted annual growth of 5 to 7 percent over the next 10-year period.

Sustainability, ensuring that we are good stewards of the land, is also a driving factor. One of the agency's goals is to continue to move more freight from the roads to rail. Although approximately 80 percent of the containerized cargo entering our port stays within the region, a significant and growing portion heads to points west and north. About 13 percent of the port's cargo moves by rail today, but we are investing nearly $600 million in our on-dock rail infrastructure to increase that proportion to about 20 percent over the next decade.

However, much of our investment is in jeopardy if other funding sources, public or private, are not identified to expand the freight rail system nationally. According to AASHTO, without sufficient investment by 2020 only half of the forecasted growth in freight rail tonnage can be accommodated by the current freight rail system. Enhancing our Nation's freight system should and must be in the forefront of any discussion of transportation. It's imperative that port authorities and logistics companies have a partner in the Federal Government for this effort, as a local or regional approach will not completely suffice.

To assist in the process of organizing trade and cargo flows, the Federal Government could map the international transportation system from a national perspective and propose national corridors to accommodate the anticipated freight flows. Regional projects could be measured for their national significance, how they would work within that system as a whole.

Such an example can be seen in the *Federal Principles and Guidelines for Water and Related Land Resource Implementation Studies,* which describe the analytical and policy framework for determining the appropriate participation of the Federal Government in dredging projects. At least on a conceptual level, we believe a similar approach could work looking at regional projects for national benefit.

New national investments in freight capacity will need innovative Federal financing systems. A piecemeal approach is not and will not meet the needs of our Nation's crumbling and stressed infrastructure. Just as airports and highways have a reliable source of funding, so must freight infrastructure. The Highway Trust Fund and Passenger Facility Charge at airports have provided a reliable funding source for systems investments in our Nation's roads and airports. Seaports and intermodal connections should have a comparable funding mechanism to provide needed systematic investment.

Our freight transportation system is the blood circulation system of our Nation's economy. We don't want congested arteries.

It's going to take time and a great deal of funding to maintain and enhance the freight movement system in the Nation. While we're working on this, the international trade and demand for freight transportation will continue to grow. The world is not waiting for us. If our system can't keep up, the Nation's economy will become less competitive and we'll suffer. I respectfully urge this committee to formulate and recommend a workable approach before we are truly overwhelmed with congestion and the loss of freight mobility that is so vital to our national economy.

Thank you again for the opportunity to testify this afternoon.

[The prepared statement of Mr. Larrabee follows:]

PREPARED STATEMENT OF REAR ADMIRAL RICHARD M. LARRABEE, (RET.), U.S. COAST GUARD, DIRECTOR OF COMMERCE, PORT AUTHORITY OF NEW YORK AND NEW JERSEY

Good afternoon. Honorable Chairman Lautenberg and Ranking Member Smith and distinguished Members of the Committee, thank you for the invitation to testify before you today. I appreciate the opportunity to provide some insight into improving the efficiency of future freight movement.

My name is Richard M. Larrabee, and I am the Director of Port Commerce for the Port Authority of New York and New Jersey (the Port Authority). In this capacity, I am responsible, along with other private and public partners, for the promotion, protection, and development of the Port of New York and New Jersey, which includes facilities in Bayonne, Elizabeth, Jersey City, and Newark, New Jersey, as well as in Staten Island, and Brooklyn, New York.

The Port Authority is a bi-state agency that oversees not just seaports, but also other transportation facilities such as airports, bridges and tunnels, and a rapid transit commuter system. From this unique perspective, we have the benefit of a macro view of how different modes of transportation interrelate and work to strengthen the region while moving people and goods safely and efficiently. We also have direct expertise of the importance—and increasing cost—of modernizing and rebuilding infrastructure to ensure continued economic expansion.

With 4 percent cargo growth in 2007, the Port of New York and New Jersey outperformed many major ports throughout the country, which declined or grew less than 1 percent in the same period. We believe our continued growth is due in part to our location as a gateway to the largest and most affluent consumer market in North America, with nearly 100 million consumers within a single day's travel. But, location and marine terminals with capacity alone would not be able to sustain the movement of 5,097,496 TEUs.

We link increased cargo movements through our port facilities to our strategic investments in port infrastructure, which have increased our port's ability to handle

future capacity—investments in dredging, rail, road, and in some cases in the terminals themselves. Since September 11, when formulating the Port Authority's budget, our focus, first and foremost, is on security. Second is maintaining a state of good repair for our facilities. Once funding for these two items is allocated, only a small fraction of the budget remains for capital investments and new initiatives. We prioritize those projects, focusing on alleviating chokepoints along the supply chain. With this in mind, we have just embarked on a 10 year $2 billion capital plan to continue to ensure that our facilities are able to handle the forecasted annual growth of 5–7 percent over the next 10 years.

Sustainability, ensuring that we are good stewards of the land, is also a driving factor. One of the agency's goals is to continue to move more freight from roads to rail. For each container we place on a train, we save 1.7 truck trips, reducing emissions and improving congestion on our local roads. Although approximately 80 percent of containerized cargo entering the port stays within the region, a significant and growing portion heads to points west and north. About 13 percent of the port's cargo moves by rail today, but we are investing $600 million in on-dock rail infrastructure to increase that proportion to about 20 percent over the next decade. However, much of our investment is in jeopardy if other funding sources, public or private, are not identified to expand the freight rail system nationally.

According to the American Association of State Highway and Transportation Officials (AASHTO), without sufficient investment, by 2020, only half of the forecasted growth in freight rail tonnage can be accommodated by the current freight rail system. The balance would likely shift to trucks and the highway system.[1] This would have a detrimental effect on our environment, and increase congestion on roads that are shared with local residents.

We recognize that our port facilities—and the Port Authority's bridges and tunnels—are just one link in the global supply chain. The Port Authority can partner with others, but has no authority to invest infrastructure assets beyond its Port District—a 25-mile zone circumscribed around the Statue of Liberty. We are working with our tenants and local partners in state and local government to make strategic investments outside of the gates of our ports—for roads and rail and warehousing—but our efforts alone will not ensure the continued efficiency of national freight movement.

Enhancing our Nation's freight system should and must be at the forefront of any discussion of transportation. It is imperative that port authorities and logistics companies have a partner in the Federal Government for this effort, as a local or regional approach will not suffice.

Working together, as partners, we can develop a consistent policy that the industry can rely on for funding and prioritizing projects.

The Federal Government is providing policy and governance leadership to meet our Nation's security needs; similar policy leadership is desirable in meeting our country's growing transportation needs. The Safe, Accountable, Flexible and Efficient Transportation Equity Act—A Legacy for Users (SAFETEA–LU) took a step in this direction with the creation of the National Surface Transportation Policy and Revenue Study Commission.

To assist in the process of organizing trade and cargo flows, the Federal Government could map the international freight transportation system from a national perspective and propose national corridors to accommodate the anticipated freight flows.

Regional projects could be measured for their national significance—how they work with the system as a whole. Such an example can be seen in the current Federal approach to deepening the channels of the Nation's navigable waters. The importance of ports, channels and inland waterways has been well established as a major means of commercial transportation and as part of national defense. Congress uses a disciplined approach to funding the maintenance and improvement of the Nation's navigation system. Individual navigation channel improvements must be demonstrated to be in the Federal interest before becoming eligible for Federal funding. The *Federal Principles and Guidelines for Water and Related Land Resources Implementation Studies,* which were approved in 1983, describes the analytical and policy framework for determining the appropriate participation of the Federal Government in dredging projects. "Local sponsors", such as port authorities, propose channel-deepening projects and the U.S. Army Corps of Engineers determines the costs and expected benefits of proposed projects as part of its determination of the Federal interest. In the past, the benefits have been almost exclusively determined by estimating the transportation cost savings that would result to the Nation's economy with the proposed improvement. Projects with a positive cost-benefit analysis are el-

[1] AASHTO—*Freight-Rail Bottom Line Report,* 2003.

igible for consideration for Federal funding, but such projects must subsequently be authorized, and funded, by Congress. Additionally, total project costs are typically shared between the local sponsor and Federal Government. At least on the conceptual level, we believe a similar approach could be developed as an equitable framework for determining whether Federal funding should be applied to rail and other projects that could have a significant benefit to the Nation.

New national investments in freight capacity will need innovative Federal financing systems. A piecemeal approach has not and will not meet the needs of our Nation's crumbling and stressed infrastructure. Just as airports and highways have a reliable source of funding, so must freight infrastructure. The Highway Trust Fund and Passenger Facility Charge (PFC) at airports have provided a reliable funding source for system investments in our Nation's roads and at airports. Seaports and their intermodal connections should have a comparable funding mechanism to provide needed systematic investments. The public benefits of these investments require some form of acknowledgement and compensations. The freight transportation system is the blood circulation system of our Nation's economy; we don't want congested arteries.

It is going to take time—and a great deal of funding—to maintain and enhance the freight movement system in the Nation. While we are working on this, international trade and demand for freight transportation will continue to grow. The world is not waiting for us—if our system can't keep up, the Nation's economy will become less competitive and will suffer. This is a very real problem that requires a very realistic solution. I respectively urge this committee to formulate and recommend a workable approach before we are truly overwhelmed with congestion and lose the freight mobility that is so vital to the national economy.

Thank you again for allowing me the opportunity to testify before you today.

Senator LAUTENBERG. Thank you very much.

Mr. Vanselow?

STATEMENT OF GLENN VANSELOW, EXECUTIVE DIRECTOR, PACIFIC NORTHWEST WATERWAYS ASSOCIATION

Mr. VANSELOW. Mr. Chairman, Senator Smith, Members of the Committee: Thank you for inviting me to testify. I am Glenn Vanselow, Executive Director of the Pacific Northwest Waterways Association. PNWA is a nonpartisan, nonprofit. We represent ports, towboat companies, steamship operators, agriculture and forest products shippers in Washington, Oregon, Idaho, and northern California.

Our Nation's economy relies on safe, efficient, and reliable transportation. I will focus on navigation, but please note, efficient water transportation requires efficient land-side transportation. A bottleneck in any one link can prevent American producers from connecting with their domestic and foreign markets.

Annually 2.5 billion tons move by water within, to, and from the United States. $2 trillion moves in international trade and that generates $21 billion in customs revenue to the U.S. Treasury each year.

Pacific Northwest ports ship 90 million tons of cargo worth $60 billion. The Columbia River is the Nation's number one gateway for the export of wheat and barley. Seattle and Tacoma form the country's third largest gateway for containerized cargo.

A typical barge can carry 1,500 tons on the Mississippi and 3,500 tons on the Columbia and Snake Rivers. That compares with 100 tons by rail car or 29 tons per truck. For the Columbia River, loading a typical grain ship with 55,000 tons of wheat for export requires four barge tows or 550 rail cars or 1,900 trucks.

Larger carrying capacity translates into energy efficiencies. The Chairman has already cited the U.S. Maritime Administration's

Texas Transportation Institute study comparing truck, rail, and barges. If I may say, Mr. Hamberger and I had a chance to chat beforehand. 413 ton-miles per gallon, 436 ton-miles per gallon, why quibble? Why quibble? Navigation carries 576 ton-miles per gallon. The details are in my written testimony.

Those fuel savings translate into environmental benefits, with navigation producing fewer air emissions as well.

Each year $1.5 billion is collected from inland and deep draft navigation user fees. The combined collections are far in excess of expenditures. Despite this surplus, navigation needs are not being met. There is a backlog of maintenance and new construction that is multiple billions of dollars.

The Harbor Maintenance Tax was designed to fully fund dredging of deep draft ports. $1.4 billion is collected each year. Only $900 million is spent. The surplus is over $4 billion today. The GAO estimates that it will grow to $8 billion in just 3 years, 2011.

The Inland Waterways Trust Fund collects $80 to $100 million a year. It provides half of the new construction on the inland waterways. That Fund had a surplus for many years, but that surplus will be gone by 2009.

The Administration has proposed a new inland waterway lockage fee. It would increase the tax fourfold for barging on the Columbia and Snake Rivers. The PNWA opposes this new tax as long as the combined navigation user tax collections are in excess of expenditures. Rather than propose new taxes, we urge the Administration to spend funds that are currently being collected.

Underfunding navigation hurts the country and it hurts the Pacific Northwest. The PNWA tracks appropriations for 32 navigation projects in the Pacific Northwest. Those are detailed also in our written testimony. The administration's budget adequately funds only three of our region's top 32 projects. Congressional adds are needed for the other 29, including to maintain the Columbia River channels and the locks on the inland system, dredging and jetty repair at Oregon coastal ports, to meet endangered species requirements at Seattle's Lake Washington Ship Canal, to study and prepare Seattle's Elliott Bay Seawall, and for a long-term sediment management study at Humboldt Bay in California.

Congress has responded with increased funding in past years. Those hard-fought increases are important and they are very much appreciated, but they're not sufficient. We urge Congress to reinvigorate our Nation's infrastructure by funding navigation at levels that match the overall collections of user taxes. That would add $500 million annually nationwide. User fees were instituted to meet specific funding needs. The funds collected must be spent. Congress has the authority. We urge you to exercise that authority.

Thank you for your support. We look forward to working with you to ensure that our Nation's transportation infrastructure provides a solid foundation for a robust American economy. Thank you for this opportunity to testify.

[The prepared statement of Mr. Vanselow follows:]

PREPARED STATEMENT OF GLENN VANSELOW, EXECUTIVE DIRECTOR, PACIFIC NORTHWEST WATERWAYS ASSOCIATION

Mr. Chairman, Members of the Committee,

Thank you for the opportunity to testify today on the important topic of freight mobility. I am Glenn Vanselow, Executive Director of the Pacific Northwest Waterways Association. PNWA is a non-partisan, non-profit association that represents freight mobility interests, including port authorities, towboat companies, steamship operators, shippers of cargo, agricultural producers, forest products manufacturers and other transportation interests in Washington, Oregon, Idaho and northern California.

Our nation's economy relies on a safe, efficient and cost-effective transportation system. That system includes road, rail, water and air. My colleagues on the panel are addressing trucking and rail. I will focus on navigation. But I do so while noting that efficient water transportation requires efficient landside transportation as well. For international and domestic trade, intermodal connections are critically important. A bottleneck in any one link reduces the strength of the supply chain connecting producers with their domestic and foreign markets.

Economic Benefits of Navigation

Annually, more than 2.5 billion tons of cargo move by water within, to and from the United States. Nearly 1.6 billion of those tons move in international trade, with a value of over $2 trillion. Waterborne international trade generates over $21 billion annually in U.S. Customs revenue to the U.S. Treasury. The total direct and indirect economic impact of waterborne commerce is 8.4 million jobs, and over $300 billion in personal income.

In my region, the Pacific Northwest, our ports ship nearly 90 million tons of cargo worth over $60 billion. The Columbia River is the Nation's number one gateway for the export of wheat and barley, and the third largest grain gateway in the world. The Ports of Seattle and Tacoma are the third largest gateway for containerized cargo in the country.

Environmental Benefits of Navigation

A typical barge can carry 1,500 tons on the Mississippi River System and 3,500 tons on the Columbia Snake River System. That compares with 100 tons per rail car and 29 tons per truck.

The modal comparison for the Mississippi River System in Figure 1 is from a 2008 U.S. Maritime Administration (MARAD) study completed at the Texas Transportation Institute at Texas A&M:

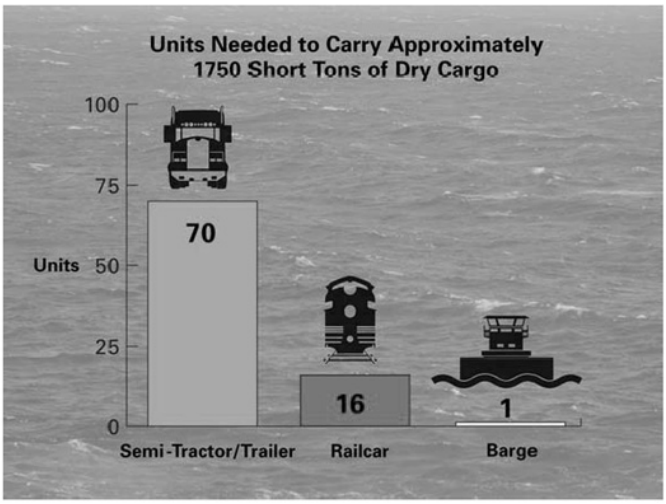

Figure 1

In Figure 2, PNWA prepared the same comparison for the Columbia Snake River System.

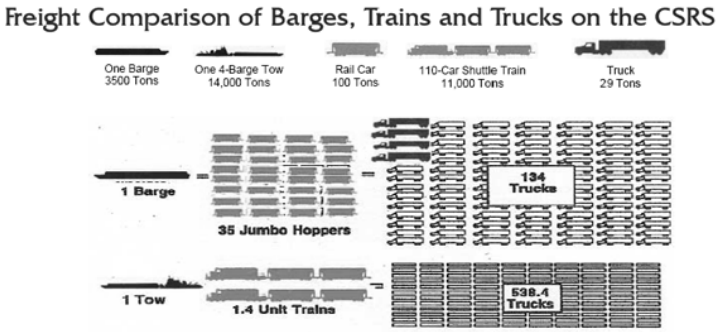

Figure 2

For the Columbia Snake River System, delivering cargo to load a typical grain ship with 55,000 tons of wheat would require 4 barge tows, 550 rail cars, or 1,900 trucks.

The differences in carrying capacity translate into differences in energy efficiency. Below is a chart showing the relative energy efficiencies of truck, rail and barge transportation on the Mississippi River System, courtesy of the MARAD/Texas Transportation Institute study.

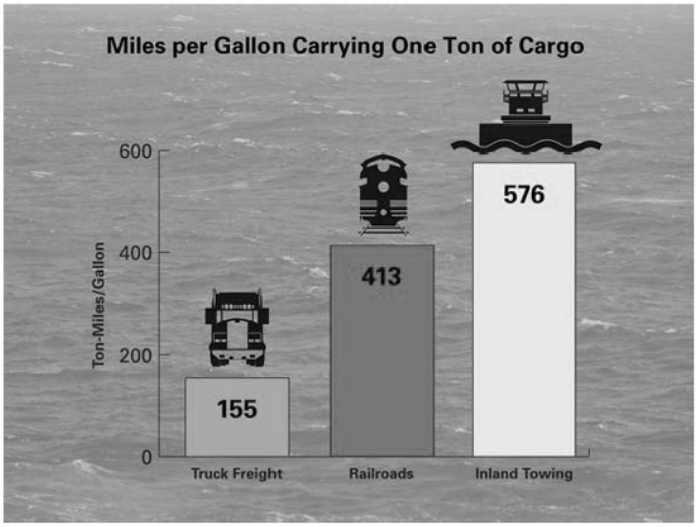

Figure 3

The chart shows ton-miles per gallon, or how many miles a ton of cargo can be carried on one gallon of fuel. Fuel efficiencies are improving for all three modes, yet navigation continues to move more cargo, more miles, for every gallon of fuel.

The fuel savings translate into proportionate navigation benefits for the environment, with fewer emissions of hydrocarbons, carbon monoxide, nitrous oxide and particulate matter. Figure 5 is a table from the 2008 MARAD study showing a comparison of emissions.

Emissions in Grams per Ton Mile

	HC	CO	NO_x	PM
Inland Towing	0.01737	0.04621	0.46907	0.01164
Eastern Railroad	0.02419	0.06434	0.65312	0.01624
Western Railroad	0.0243	0.06445	0.65423	0.01621
Truck	0.020	0.136	0.732	0.018

Figure 4

Navigation Funding

Since 1789, the Federal Government has exerted control over navigation channels and channel improvements. In 1824, Congress delegated authority over the Nation's navigation system to the U.S. Army Corps of Engineers. Operations and maintenance and new construction of navigation projects are funded annually in the Energy and Water Development Appropriations bill. Since 1978 there has been a user fee on the Nation's inland waterways, the Inland Waterways User Fee. In 1986, Congress established a user fee for deep draft coastal ports and harbors, the Harbor Maintenance Tax.

Each year, a total of $1.5 billion is collected from the inland and deep draft user fees. That is in addition to the $21 billion in Customs duties that are collected. Despite the collection of these fees, navigation needs are not being met. There is a significant backlog of maintenance and new construction.

The Harbor Maintenance Tax was established to collect fees to provide 100 percent of the cost of operations and maintenance, primarily dredging, of the Nation's deep draft and coastal ports and harbors. Approximately $1.4 billion is collected each year and symbolically placed in the Harbor Maintenance Trust Fund, but only about $900 million is expended. Currently, the surplus of collections over expenditures is over $4 billion. The GAO reports that the surplus is expected to grow to $8 billion by 2011. Rather than being used for their intended purpose, at least $500 million of these user fees is instead used to balance the Federal budget.

The Inland Waterways Fuel Tax was created to collect fees to provide for 50 percent of the cost of new construction and rehabilitation of locks on the Nation's inland waterways. It collects 20 cents per gallon of fuel used by towboats on the inland waterways. Each year it collects about $100 million, but that has decreased to about $80 million as towboats have become more fuel efficient. The Inland Waterways Trust Fund had a surplus for many years, but now, expenditures are projected to surpass collections in 2009. The Administration has proposed instituting a new inland waterway tax which would replace the fuel tax with a lockage fee for each barge. The proposal would increase the user tax approximately four-fold for barging on the Columbia and Snake Rivers.

PNWA opposes this new tax. Currently, the combined government navigation user tax collections are far ahead of expenditures. That is expected not only to continue, but to grow for the foreseeable future.

Despite collections far exceeding expenditures, the Administration does not propose sufficient funding to maintain the existing navigation system or to meet future needs. For decades, during both Republican and Democratic administrations, we have had to look to Congress for increases over and above the inadequate Administration budget proposals.

As an example of how this affects the Pacific Northwest, I have attached a copy of PNWA's appropriations request for FY 2009. We track 32 navigation projects from Humboldt Bay in California, up the Oregon Coast, along the entire length of the Columbia Snake River System in Oregon, Washington and Idaho, to the Ports of Seattle and Tacoma and the northern reaches of the Puget Sound in Washington. Of those 32 navigation projects, 29 are in need of additional funding. In other words, the Administration's budget proposal provides adequate funding for only three of our region's 32 navigation projects.

Additional funding is needed in all categories . . . general investigations, new construction and routine operations and maintenance. Here are a few examples.

On the Columbia Snake River System, Congressional adds are needed to maintain authorized channel depth throughout the Columbia and Lower Willamette project.

Two of our eight locks need Congressional adds for routine operations and maintenance. Five need adds for major maintenance and repairs. One needs additional funding for dredging to maintain authorized channel depth.

Oregon's coastal ports need funds added for routine dredging to maintain their navigation channels and for jetty repairs.

In Puget Sound, the Lake Washington Ship Canal needs a Congressional add to meet Endangered Species Act requirements. More funding is needed for the Elliott Bay Seawall study in Seattle.

In California, Humboldt Bay needs funding to complete a long term sediment management feasibility study.

Congress has responded in past years. Those hard fought increases have been important, and very much appreciated, but they have not been sufficient to prevent navigation infrastructure from further deteriorating. We encourage Congress to reinvigorate our Nation's navigation infrastructure by funding navigation at levels that match the overall collection of user taxes. That is what is necessary to meet our Nation's vital economic needs. That would equate to an annual increase of $500 million nationally.

Unfortunately, having money in a Federal trust fund does not mean that the money is actually available to be spent for its designated purpose. That is wrong. User fees were instituted to meet a specific funding need. The funds collected from navigation user fees must be spent to meet navigation needs. Congress has the authority to make this happen. We urge Congress to exercise that authority.

We appreciate your past and continued recognition of the ways our Nation's transportation infrastructure provides a foundation for a robust American economy. We look forward to working with you to ensure that our transportation infrastructure is capable of meeting our Nation's needs.

Thank you for this opportunity to testify. I am happy to answer any questions you may have.

(Attachment: PNWA FY 2009 Energy and Water Appropriations Requests)

PNWA FY 2009 Energy and Water Appropriations requests

Deep Draft Navigation

More than 60 million tons of cargo, worth $36 billion, moves in international trade across the docks of Oregon and Washington ports. The Puget Sound and Columbia River gateways are some of the largest in the country for: containers; wheat, barley and corn exports; and automobile imports. PNWA supports continued investment in the development and maintenance of the Federal navigation projects that support this important economic activity.

Construction (CG)	FY 2008	President's FY 2009 Budget Level	Support Additional Funds	Total Request for FY 2009
Columbia River Channel Improvement Project	14,760,000	36,000,000	0	*36,000,000*
John Day Major Rehab Study (funding is located in dam safety program)	1,000,000	2,000,000	0	*2,000,000*
Mt. St. Helens sediment control	9,247,000	1,410,000		*6,410,000*
Evaluate fish passage alternatives, dredge to maintain flood control			5,000,000	
Lower Columbia River ecosystem restoration	1,688,000	1,500,000		*3,080,000*
Water Resources Education Ctr. site, plan/design Sandy River Delta site, plan Vancouver Lake site			1,580,000	
Lake Washington Ship Canal seismic analysis	0	0	450,000	*450,000*
Humboldt Bay Long-Term Sediment Management feasibility study	107,000	0	500,000	*500,000*
General Investigations (GI)	FY 2008	President's FY 2009 Budget Level	Support Additional Funds	Total Request for FY 2009
Elliott Bay Seawall study (Port of Seattle)	590,000	0	1,025,000	*1,025,000*
Lake Washington Ship Canal restoration study	369,000	0	650,000	*650,000*

We are pleased to note that the following critical infrastructure item was included in the President's budget:

- $675K for plans and specs for the Columbia River jetties major rehab (funding is part of the "Columbia River at the Mouth" account)

Operations & Maintenance (O&M)	FY 2008	President's FY 2009 Budget Level*	Support Additional Funds	Total Request for FY 2009
Columbia River at the Mouth (MCR)	14,583,000	14,873,000		*15,273,000*
South jetty beneficial use site study			400,000	
Columbia & Lower Willamette River below Vancouver & Portland (C&LW)	23,461,000	24,973,000		*27,469,000*
Maintenance dredging on C&WL, at Westport Slough ($810K) and the Old Mouth of the Cowlitz ($450K), major maintenance report for pile dikes			2,496,000	
Columbia River between Vancouver & the Dalles	448,000	640,000		*814,000*
Additional maintenance dredging			174,000	
Coos Bay (Port of Coos Bay)	5,609,000	4,769,000		*10,852,000*
Additional maintenance dredging, North Jetty interim repair, jetty major maintenance report			6,083,000	
Yaquina Bay & Harbor (Port of Newport)	1,247,000	1,482,000		*1,972,000*
Maintenance dredging, engineering analysis of north jetty extension			490,000	
Lake Washington Ship Canal	5,506,000	7,554,000		*8,154,000*
Design for modification to diffuser well (for improved passage of ESA-listed fish)			600,000	
Humboldt Harbor & Bay (Port of Humboldt Bay	5,181,000	5,144,000		*5,600,000*
Additional maintenance dredging			456,000	

*The President's budget only specifies funding for O&M on a regional basis. These project amounts were obtained from the U.S. Army Corps of Engineers.

Columbia Snake River System Inland Navigation

Barging on the Columbia Snake River system carries 10–12 million tons of cargo worth $1.5–2 billion annually. Barging feeds 50 percent of the wheat exports and 25 percent of the containers handled at the Lower Columbia ports. It is the lowest cost, most fuel efficient, and cleanest mode of cargo transportation. Ongoing support of this inland waterway is critical to the health of the regional economy and the success of our deep draft ports.

We are pleased to note that the following critical infrastructure needs were included in the President's budget:

- $1.56M for the Lower Monumental downstream lock gate plans & specifications.
- $1M for pintle bearings and $3M for tainter valves at The Dalles.
- $2.5M for tainter valves at John Day.
- $6.7M for the Programmatic Sediment Management Plan for the Lower Snake River.

Operations & Maintenance (O&M)	FY 2008	President's FY 2009 Budget Level*	Support Additional Funds	Total Request for FY 2009
Bonneville Lock & Dam	14,040,000	11,701,000		*12,472,000*
Routine O&M activities			771,000	
The Dalles Lock & Dam	3,680,000	7,696,000		*8,370,000*
Routine O&M activities, replace navlock control system			674,000	
John Day Lock & Dam	4,336,000	7,049,000		*11,646,000*
Design and contract for navlock lift gates friction drum crack repair ($3.5M), rehab spillway crane, rebuild turbine pumps			4,597,000	
McNary Lock & Dam	5,283,000	1,251,000		*5,509,000*
Derrick crane rehabs ($1.1M), dredge Ice Harbor Cut, tainter valve and hydraulic system design, waterstop repair			3,216,000	
Engineering/design for replacement of electrical and mechanical equipment in major maintenance report; funding for miter gate actuating arm repair			992,000	
Repair floating mooring bits			50,000	
Ice Harbor Lock & Dam	3,748,000	1,735,000		*3,060,000*
Planning, engineering and design phase for the replacement of the upstream gate and operating machinery per major maintenance report			700,000	
Repair leaks in the floating guide wall and rehabilitate the upstream navlock gate controls			625,000	
Lower Monumental Lock & Dam	2,962,000	5,241,500	0	*5,241,500*
Little Goose Lock & Dam	1,357,000	1,550,000		*4,000,000*
Navlock waterstop repair, downstream gate pintle parts ($1.5M), and plans/specs for major maintenance report			2,400,000	
Repair floating mooring bits			50,000	
Lower Granite Lock & Dam	3,649,000	5,486,000		*7,801,000*
Repair waterstops in navlock between monolith 3 and 5; repair upstream tainter gate; fund major maintenance report activities			1,215,000	
Dredge federal nav channel near Port of Clarkston ($1.1M)			1,100,000	

Note: Items in gray represent priority needs on the inland Columbia Snake River System.
*The President's budget only specifies funding for O&M on a regional basis. These project amounts were obtained from the U.S. Army Corps of Engineers.

PNWA Member Shallow Draft Commercial and Recreational Ports

PNWA supports full funding for these critical projects. These ports, home to fishing fleets, marinas and significant commercial and recreational facilities, are critical to the economic survival of their communities. Many have small populations, and the ports provide employment for a significant proportion of community.

Operations & Maintenance (O&M)	FY 2008	President's FY 2009 Budget Level*	Support Additional Funds**	Total Request for FY 2009
Oregon				
Tillamook Bay & Bar (Port of Garibaldi)	1,850,000	35,000		*4,932,000*
Jetty repair, major maintenance report, plans & specs; maintenance dredging			4,897,000	
Yaquina River (Port of Toledo)	580,000	0	632,000	*632,000*
Siuslaw River (Port of Siuslaw)	691,000	583,000		*2,650,000*
Dredging, ocean disposal site evaluation, north & south jetties major maintenance report			2,067,000	
Umpqua River (Port of Umpqua)	1,370,000	635,000	784,000	*1,419,000*
Rogue River (Port of Gold Beach)	427,000	587,000		*1,271,000*
Dredging, evaluate north & south jetties			684,000	
Chetco River (Port of Brookings Harbor)	409,000	574,000	448,000	*1,022,000*
Washington				
Swinomish Channel (Port of Skagit County)	467,000	0	691,000	*691,000*
Columbia River at Baker Bay (Port of Ilwaco)	598,000	3,000	840,000	*843,000*
Columbia River b/t Chinook & Sand Island (Port of Chinook)	229,000	6,000	699,000	*705,000*

*The President's budget only specifies funding for O&M on a regional basis. These project amounts were obtained from the U.S. Army Corps of Engineers.
**Unless otherwise specified, additional requested funds are for maintenance dredging needs.

Senator LAUTENBERG. Thank you all for your important testimony.

I'll start with a question for you, Administrator. The 2005 SAFETEA–LU highway bill required the Bush Administration to put together a comprehensive plan for a national intermodal freight policy by last summer. We've not even seen a progress report. What's the status of this plan?

Mr. BRUBAKER. Mr. Chairman, that is an outstanding question. I'm going to have to defer to some of the staff here and get an answer for the record for you on exactly where that is. I will dive into that, though, as soon as I get back and call your staff and find out.

[The information referred to follows:]

STATUS OF THE COMPREHENSIVE PLAN FOR INTERMODAL FREIGHT POLICY

On Friday, August 15, Thomas Bolle and Jeff Onizuk from the Research and Innovative Technology Administration (RITA) staff, met with Subcommittee staffer Stephen Gardner as a follow-up to the June 10 freight hearing. During that meeting, Stephen indicated that in terms of the status of the comprehensive plan for intermodal freight policy, they would like to know where RITA stands now, with a focus on methodology and metrics. He also indicated that following that discussion they would like to discuss the scope, structure, and plan for intermodal activities and the Office of Intermodalism within the Department. It was agreed that the best way to follow-up on these issues was to schedule a meeting with RITA Administrator Paul Brubaker and Subcommittee staff following the August recess.

Senator LAUTENBERG. It's an important program and I would hope that your people would have been able to present it to you with the start of this meeting.

Without a comprehensive national strategy for freight movement, this administration seems incapable of putting good data to use to

craft policy and make investment decisions to meet our transportation challenges. What have you got by way of specific examples of how the data that you collect is being used for shaping Federal transportation policy?

Mr. BRUBAKER. Yes, sir. That was one of the main points in my oral testimony, is the quality of the existing data that we currently have around freight movement from a holistic, multimodal and intermodal way. We don't have the kind of quality complete picture of the existing movement of freight flow that we would like. For example, one of the programs that's under my responsibility is the Commodity Freight Flow Survey and that data by the time we get it, collect it, analyze it, and release it is 18 months to 2 years old.

What we need to have is a real-time picture of the performance of the supply chain. We know that data exists. We know that there are ways to collect that data, leveraging technology. In fact, one of the University Transportation Centers that we fund down at Georgia Tech actually collects that type of information on a private sector-funded project, where they are able to track container shipments across the country, across the various modes. They can tell you real-time exactly where their shipments that they're tracking for a private sector client, like I mentioned, are in the supply chain.

What it's revealing is information that we as a Department really need to know in terms of where the bottlenecks are in the existing supply chain. That's one piece of it.

The other piece of it is we know, based on what information we do have, that there are some significant choke points in the supply chain and we've taken some steps and implemented some programs, particularly Corridors of the Future, where we're looking at freight flow up and down some of the most historically crowded corridors, where you've got freight competing with passenger movement, to try to relieve congestion in those areas.

But the bottom line is from our perspective the data that we currently collect is inadequate and we are undertaking some pretty extensive efforts and reviews to try to assemble the right kind of data sets, understanding what's relevant and trying to revector, fundamentally revector our data collection, so that we can support——

Senator LAUTENBERG. It's a bit disconcerting that this crisis we're facing has been coming on for some time, and I would have thought that someplace in your Transportation Department, this information would have been part of routine management. Very frankly, it's tough to accept the fact that at this point in time that you don't have the facility to do it.

I'm going to go on to my colleagues and we'll have another round of questions. With that, Senator Smith, the Ranking Member of the Subcommittee. Senator Smith?

STATEMENT OF HON. GORDON H. SMITH, U.S. SENATOR FROM OREGON

Senator SMITH. Thank you, Senator Lautenberg.

All of you, thank you. Your testimony has been very helpful. Admiral Larrabee and Glenn, good to see you. Nice to have you. Thank you for coming back here.

I think we're touching on a very, very important issue. Whenever I go to Seattle or Portland or Long Beach—and I'm sure it's the same at the Port of New Jersey and New York—the infrastructure is operating at near capacity, whether you're talking highway, rail, or shipping. I wonder if anyone is looking at our navigation system, if you look at the congestion we're seeing.

Do you know of any estimates to the impact on our economy of congestion in the maritime system? Is anybody focusing on the maritime component? We've talked highway, we've talked rail.

Mr. LARRABEE. Senator, I think a good example would be the labor issues on the West Coast in 2002, when the southern California ports were closed. We estimated that for each day that those ports were closed the U.S. economy was losing about a billion dollars a day. I think most Americans don't understand the vital role that ports play in this logistics, very complex logistics system.

The example that I've given could be substituted by a major storm. It could be substituted by a terrorist event or in many ports congestion, which simply overwhelms the system. Right now, I think from our perspective in New York and New Jersey we believe that we'll see a doubling of cargo in the next 10 years. Our port has taken a very systematic approach to improving access through a 50-foot channel which we're in the middle of constructing right now, spending a good deal on terminals, but primarily right now, from my testimony, spending in excess of $600 million on rail infrastructure and another $400 million on roadways around the port, only to be able to accommodate the kind of growth that we think is coming. Those were all investments being made for the most part locally.

Senator SMITH. Well, that's why I wonder if anybody's broken down the portion of the cost that is attributable to the lack of channel maintenance and port facility expansion. It just seems to me that in all of our conversations here, I think rail is doing a great job, we're certainly investing a lot in highways, and heaven knows we need to do more of both, but the shipping component I think is grossly undervalued in terms of what it's contributing.

Glenn, when you talk about the Snake and Columbia Rivers, four barges, the equivalent of 1900 trucks. Think of what that means in terms of energy use, in terms of congestion on our highways, and the cost imposed on our highways where we could be investing in these port facilities to the great energy advantage of our country.

Mr. VANSELOW. One of the things that I pointed out was an administration proposal to create a new lockage fee on the inland waterways, which would in our area be about a fourfold increase. It seems as though it goes against other administration and other national policies to in essence try to jack up the cost of moving cargo on the most energy efficient and least polluting mode of transportation.

Senator SMITH. As you know, Glenn, every year we get our port budget zeroed out for basic dredging. My point is maybe some of these monies that we're collecting, in the billions of dollars, ought to be used to make sure we're maintaining our channels and expanding our port facilities, to the advantage of all these other modes of transportation. I just don't know that we have a very intermodal kind of planning process.

When you look at the growth that's projected in all of these areas, I think we're leaving out a piece of this. That's what my questioning is meant to highlight.

My point—people say, well, you need to raise some more fees, we've got to raise some taxes. The Harbor Maintenance Tax is an ad valorem tax. It goes to the value. As those values go up, this is going to be creating a tremendous amount of money. As those values go up, why do we need a new tax? Why can't we direct those increased values at both increased capacity and maintenance?

Mr. VANSELOW. For both Republican and Democratic administrations we've had the problem that the Administration in the President's budget underfunds those collections dramatically. Again, we're at $4 billion-plus today. It will be growing by approximately a billion dollars a year over the next few years.

Senator SMITH. Well, my friend the Chairman—it's easy to pick on the Bush Administration. We had the same problem with the Clinton Administration. This isn't a Republican or Democratic problem.

Senator LAUTENBERG. He said that and I heard it. I was disappointed to hear it.

Senator SMITH. This is money that we are taking. We're already collecting enough taxes and we're just simply spending it on other general fund issues. But the point is the inefficiencies that flow from this, the energy waste that comes from this, is a bipartisan shame and I think we ought to fix it.

That probably goes to the Finance Committee. I happen to be on that committee. I'm taking this up there, too.

Mr. VANSELOW. Thank you, sir.

Senator SMITH. But what I would like, my take-home to this is that we have not a Republican problem, not a Democratic problem, not a tax collection problem. We have a tax allocation problem.

Thank you, Mr. Chairman.

Senator LAUTENBERG. Thanks very much.

Senator Carper?

STATEMENT OF HON. THOMAS R. CARPER, U.S. SENATOR FROM DELAWARE

Senator CARPER. Mr. Chairman, thanks very much.

I'm going to be joined here shortly in the anteroom by the President of the University of Delaware, so I'm going to ask some questions and then slip out and then come back for the second round if I could.

I appreciate very much your holding this hearing. This is a very important hearing for us, not just in the Northeast but for our country, and we express our thanks to our witnesses for coming today.

Senator Lautenberg along with former Senator Trent Lott and myself and others have worked on legislation for a number of years that seeks to find a way for us to coexist between passenger rail and freight rail and find ways where the Federal Government and State governments would partner in terms of expanding availability, not just for passenger rail service, but also freight rail service.

As you know, in my old role as Governor, if we wanted to build highways, roads, or bridges, the Federal Government usually put up about 80 percent of the funds, the State would put up 20 percent of the funds. If we wanted to build a transit project, the State would put up about 50 percent, the Federal Government would put up another 50 percent. But if inter-city passenger rail made sense to meet our passenger needs or meet our transportation needs in our state, the Federal Government would put up nada, nothing, and the states would be expected to fund 100 percent.

I know we've made decisions to fund in some case roads, highways, bridges, or maybe transit when it was really more appropriate or more efficient to use intercity passenger rail. We have the opportunity, I think the potential, for creating some partnerships where the Federal Government will put up some money, the states will put up some money, maybe for-profit freight railroads will put up some money, and we could add to their capacity and their capacity that intercity passenger rail could utilize as well.

Let me just ask you to sort of respond to that notion and tell me what you like about it and what you don't.

Commissioner Glynn?

Ms. GLYNN. Well, I think—particularly when it comes to the railroads, which do operate within highly defined and constrained rights-of-way, the type of interplay you're talking about makes a lot of sense for both passenger and the freight rail systems. For this reason, AASHTO has been very interested in some of the ideas, tax credit ideas and others, that would help functionally both the passenger system and the freight rail system.

It is very important as we look at tax credits and we look at benefits to what are private companies that we make sure that the public benefits are identified and realized. Intercity passenger rail as well as transit are two of the places where those benefits can functionally interplay positively with the freight rail operators and relieve one of the major sources of congestion and choke points that right now are a problem for both the freight railroads and the intercity passenger rail system, which has so much to give this country.

Senator CARPER. Thank you.

Others, please? Mr. Hamberger?

Mr. HAMBERGER. Thank you, Senator. Let me thank you for your leadership, Senator Carper, on the floor last week and Beth Osborne, for crafting an amendment that takes recognition of the public benefits of moving freight by rail, moving people by rail, and trying to reduce the vehicle miles traveled both on the passenger side and the freight side.

I think that conceptually we are really trying to head in the same direction. We are supporting the Amtrak bill on the floor of the House this afternoon. Our individual companies are making an individual bilateral effort, in partnership with Amtrak, even as we speak, to pick out individual corridors and trying to address on-time performance, some of which can certainly be tied to the capacity constraints that are out there. Perhaps we can improve operations and get on-time performance where it needs to be.

We are committed to trying to improve on-time performance with Amtrak and trying to expand capacity for both. As we say, the in-

herent advantage of moving freight by rail is just as true for moving people by rail, and we've got to move both, but we've got to have enough capacity for both. It cannot be one in lieu of the other.

Senator CARPER. We have something in Delaware we call DELTRAC, D-E-L-T-R-A-C. You probably have something like this in New York, maybe other states that you are from. But the idea is to use technology to better utilize the true capacity of our road system, whether it's smart signaling or when there's a mishap to clean it up, fix it up, get traffic moving in the right away. We call it DELTRAC and the idea is to get better capacity out of what we already have.

My hope is that we can find a way to do that with rail. If we're smart, maybe we can pull that off.

My time has expired. I want to come back for a second round. I'm going to go meet with our university president and I'll come back. Thank you for responding.

Anybody else have a quick comment on the issue that I raised? Anybody at all? Mr. Brubaker?

Mr. BRUBAKER. I just wanted to mention that I think innovation is something that we believe very deeply can squeeze additional capacity out of existing infrastructure. The comment was made earlier about freight movement by sea. We've actually got a program called Maritime Domain Awareness, where what we're doing is we're actually getting visibility of ships as they're entering ports or nearing ports or even en route to ports, where we can actually help guide them, much in the same way we guide planes into airports, so that they arrive just in time, so that we can better manage capacity at ports. That's an idea that we're looking at.

Similar type things with managing rail capacity. The only difference there is it requires significant cooperation between privately held or quasi-governmental agencies like port authorities, as well as the railroads, in order to squeeze that additional capacity out.

You mentioned sort of that tradeoff between highway investment and rail investment and some other investments in terms of movement of freight. We tend to focus on things we are a little bit more in control of. What we're trying to do is change the paradigm so that we're taking a more holistic look of all the elements of all the modes in the supply chain and having a better understanding of how they interact, and then work and reach out to the private sector and the port authorities to better manage the infrastructure.

Senator CARPER. Thanks for sharing that with us.

Thanks very much, Mr. Chairman. I'll be right back.

Senator LAUTENBERG. Mr. Brubaker, I was a little bewildered, to say the least, when I asked you about the SAFETEA–LU highway bill that required a comprehensive plan and apparently caught you by surprise. The section of the program that you handle is I assume the chief Department responsible for developing that information.

What went wrong? This was due in 2005. It was instructed to be done by last summer, almost a year ago. Were you surprised at all or interested enough to make inquiries about where things were without having now—you'll forgive me, sir—having to search for staff to report on it?

Mr. BRUBAKER. Sir, I will find out exactly what the history of this is.

Senator LAUTENBERG. So you haven't had a chance to look for it before?

Mr. BRUBAKER. No, sir, I have not. Just in the interest of full disclosure, I've been on this job a little less than a year and I've tried to inventory all of my SAFETEA–LU requirements, and apparently that one is not one that has been brought to my attention. I will promise you I will find the answer to that question and get back to you.

Senator LAUTENBERG. Please. It's so important because it's fundamental to our planning.

Mr. BRUBAKER. I agree.

Senator LAUTENBERG. I wanted to ask this question generally. Some have suggested that we could reduce truck traffic on our highways by using barges and ships to move freight between two U.S. ports on marine highways. But a shipment from overseas that then travels between these two U.S. ports, Mr. Vanselow, faces double taxation because it pays the Federal Harbor Maintenance Tax twice.

Now, might removing this tax for the domestic portion of this shipment provide incentive for these so-called short-sea shipping moves to get more trucks off the road?

Mr. VANSELOW. If you don't mind, Mr. Chairman, I'm going to use your question to speak a little more broadly about the Harbor Maintenance Tax. First, industry does not object to a tax. We do believe that it is necessary to fund navigation. These are all Federal channels. They are all maintained by the U.S. Army Corps of Engineers. They are all appropriated by Congress, and it is the user fee that should be paying for that.

The user fee does have some issues. One we've talked about, the surplus. Others, we have had an issue at our north and south borders, where Seattle and Tacoma, for example, are competing with Vancouver, B.C., and they are advertising no Harbor Maintenance Tax here, trying to woo cargo away from U.S. ports. This is cargo destined to U.S. importers, but moving through a foreign country to get there. So there are other issues.

We do believe that we do need to take care of those kinds of movements. If a cargo is taxed once coming into the United States, that ought to be all that it is taxed.

Senator LAUTENBERG. But also the unavailability of the full revenue stream that is developed there has retarded progress.

Mr. VANSELOW. One of the issues that we have is it is the largest ports in the country that need the ability to exercise short-sea shipping because of their capacity constraints. We have a problem through OMB and administration priorities, it is the largest ports in the country that are the top priority for getting funding for expenditure out of that Harbor Maintenance Tax. The smaller ports, which could be the feeder ports, are the ones that Senator Smith just remarked are zero in the Administration's budget proposal. We have to come to Congress to ask for more.

So if we could more broadly spend that—it's not just L.A. and Long Beach that needs money. Their overflow opportunities go to

Oxnard and Port Hueneme and elsewhere on the California coast. We have the same issues in the Pacific Northwest.

Senator LAUTENBERG. Mr. Hamberger, we spend some $40 billion a year on highways, $15 billion on our aviation system, but little to none on rail. What do you think we could do better to balance the Federal transportation policies, to encourage investment in all modes of transportation?

Mr. HAMBERGER. Well, the difference, of course, for freight railroads is that we are privately owned. So I think it would be most appropriate for the Federal Government to provide an investment tax credit, an investment tax incentive, to encourage even more investment than the industry is already undertaking.

As you know, we spent on average about 17 or 18 percent of all revenue over the last 10 years, on capacity expansion. We have done a survey of our members and if the legislation co-sponsored by Senator Conrad and Senator Smith were to pass we believe that an additional $1.5 billion would be spent just by the railroads on capacity expansion. It's new capacity. That would create about 30,000 jobs immediately, not when a government agency says it's OK to start building. But these are projects that are on the drawing board, ready to go, for which capital does not now exist. The tax incentive would move those projects forward. We think it would be helpful in job creation, but it also provides $1.5 billion of more capacity per year.

I would point out one of the reasons that a lot of Mr. Vanselow's members support that legislation and the American Association of Port Authorities supports it is because it would also be available to anybody who invests in new capacity. That is to say if somebody, a private investor, were to want help to finance a new intermodal yard, a land-side facility near a port, the rail pieces of it would be eligible for the investment tax credit.

So I think that that is something that could be done immediately. The second companion piece, of course, is the short line tax credit, which expired at the end of 2007. In the first year it was enacted, half a million additional ties were purchased in comparison to the number from the previous year. And these are short lines that need to upgrade their track to be able to get into the heavier service.

So it works and I think that would be the first thing. The second, of course, is the public-private partnerships that everybody has referenced. I would echo Commissioner Glynn's comments that these are not handouts, this is not a subsidy. The private sector should pay for the private sector benefits and the public sector should pay for the public sector benefits, and in that way it is truly a win-win.

Mr. BRUBAKER. Mr. Chairman, if I might.

Senator LAUTENBERG. Yes.

Mr. BRUBAKER. Just to piggyback on what's been said, there are some programs, one of which was authorized under SAFETEA–LU, which is the private activity bond. We actually received, the Department's received, a couple of applications, actually three applications, for intermodal freight transfer facilities, two of which are in the State of Illinois, with the idea of eliminating bottlenecks in and around Chicago. That amounts, those three applications, total

some $2.2 billion and will, if they're fully funded, are going to wind up adding capacity to handle over two million containers per year.

So there are some activities that we're engaged in, as well as some TIFIA financing as well.

Senator LAUTENBERG. Thank you.

I'm going to turn over the chairmanship to my distinguished colleague from Delaware. Since our interests are so closely connected, I feel safe in saying that I'm sure that Senator Carper will follow up his interest in railroads and freight movement. These two little states of ours represent a lot of seagoing business and a lot of important transportation facilities. So, please.

Senator CARPER [presiding]. Thank you, Mr. Chairman.

I was telling Senator Lautenberg earlier today, when we were on the floor during a series of votes, that normally I take the train from Delaware to Washington almost every day and then back at night. Yesterday I took the train the other way, from Wilmington to Philadelphia in the morning, and then a bit later in the morning from Philly to New York City, and early afternoon from New York back down to Wilmington.

I wasn't surprised—the first train left Wilmington for New York, oh, about 8:05 and it was still rush hour and the train was full, not surprisingly. We left Philadelphia about 10 o'clock going to New York and it was not rush hour and the train was full. We left New York a little bit after 2 o'clock, not rush hour, and the train was standing room only. I thought to myself, something's going on here. Something is going on here. Amtrak is, especially in the Northeast Corridor right now, sort of bursting at the seams in terms of providing capacity.

I know the freight lines throughout the country face a similar situation. It would be great if we could be smart enough to figure out how to address both of these at least to some extent. A friend of mine likes to say "how to kill two stones with one bird." Maybe we can find a way to kill two birds with one stone.

Now that I am the Chair of the hearing, I think I'd like to call up a couple of bills of mine.

[Laughter.]

I'm the only one here, at least for now—six staff just jumped me all at once to make sure I didn't do that.

A question initially for Commissioner Glynn. Do people call you "Commissioner"?

Ms. GLYNN. Yes, sir.

Senator CARPER. All right. That's the same as "Secretary," like a cabinet secretary?

Ms. GLYNN. It is, sir, yes.

Senator CARPER. Ann Canby used to be our Secretary of Transportation in Delaware, but I think she was also once the Commissioner of Transportation in New Jersey.

Ms. GLYNN. She has been many things and I'm sure will be many more.

Senator CARPER. I loved working for her when I was Governor.

[Laughter.]

Ms. GLYNN. We all do.

Senator CARPER. In fact, she was the person who recommended Beth Osborne to us, which was one of the best hires we ever made in my Senate office.

But Commissioner Glynn, I think you mentioned in your testimony that government tends to divide transportation responsibility by mode. Here in the Senate we have, as you probably know, rail and air jurisdiction in this Committee. Over in the Committee on Environment and Public Works, we have jurisdiction over highways. In the Banking Committee we have transit. I serve on all three, so I get to play on all of them. I think I'm the only Senator who serves on all three.

But at the U.S. Department of Transportation, I think each agency focuses on the movement of machines, trucks, trains, planes, cars, and ships. But I have found that people don't necessarily travel in this way. We like to get from point A to point B quickly, we like to get there conveniently, we like to get there in a way that's affordable.

Much of the time, we use multiple modes for one trip. In Wilmington, a lot of people, until recently and even still, will take their car or a bus or a taxi or something to go to the Wilmington train station, will get on the train, will travel to BWI. We take a shuttle from BWI getting off the train to the airport. Then we take an airplane wherever we want to go.

But that's the way people move, and we do that because it's so affordable as a result. Freight movement is similar. You have businesses and consumers who just want to receive their goods quickly, they want to get them safely, they want to receive them affordably.

Here's my question. It's a long lead-in to a fairly short question, but how do we break through what we call government stovepiping to ensure that we institute policies here that facilitate a smooth flow of goods and I suppose of people, too?

Ms. GLYNN. That has been one of the challenges since the various TEA's began. And it is one that remains for us. Looking at the problem from the standpoint of our customers, looking at the problem from the standpoint of functionality, rather than our own jurisdictions, has proved very hard for all of us. Yet it is something that we need to keep working at.

Ports are perhaps the best examples of this because ports are by nature multimodal and intermodal. That is their business. The fact that we have one stream of revenue going to dredging, another stream going to rail improvement or not, a third one going to truck access, and all of this, each coming from an environment where the contribution may be viewed against a finite set of purposes and resources, tends to make each investment a zero sum game.

That is one of the problems that we have been striving against, and I must say that Ann Canby has been very diligent in encouraging us to strive against, so that we do break through those stovepipes and that we look at it from the standpoint of how can we address all aspects of this choke point, not simply the rail aspect, not simply the road aspect, not simply the depth of water—all aspects of each choke point.

If we can address the choke points, that will inure to the benefit of the entire system because the entire system is interdependent.

Senator CARPER. Anyone else on this particular point?

Mr. BRUBAKER. Yes, sir, if I may.

Senator CARPER. Yes, sir, Mr. Brubaker. Do people call you "Administrator Brubaker"?

Mr. BRUBAKER. Yes, that's fine.

My office produced a document called "Transportation Vision for 2030" back in January and the whole notion here was that we would begin to focus exactly how you described, on origin to destination for passenger movement, origin to destination for freight movement and really, because we've got the Office of Intermodal within the Research and Innovative Technology Administration, really focus on cross-modal activities and actually encourage the other modal administrators—and they have been very, very receptive, some of whom sort of refer to their stovepipes as the "silos of excellence." But nevertheless it's important that we break down those silos and begin to work across modes, because truly it is how we move freight and we move people. It is multimodal, as I hope we pointed out here today, and we really need to focus on how people move and how freight moves as well, because that is in essence how we're going to crack the code.

Senator CARPER. Thank you.

Yes, sir, Mr. Hamberger.

Mr. HAMBERGER. People call me Mister Ed.

Senator CARPER. They've probably called you worse, and certainly me too.

Mr. HAMBERGER. Yes.

We have a freight stakeholders coalition that was quite active in the last surface transportation bill. The Association of American Port Authorities was the honorary chair, and it included the American Trucking Association, our association, and others. John Horsley of AASHTO, for this upcoming authorization, has been very active in trying to get everybody in the room together under AASHTO's banner to take a look and make some significant contributions to the National Transportation Policy and Revenue Commission report that Secretary Peters chaired.

So I think there is a recognition that it's not just inside the halls of government, but also those of us in the private sector need to make sure that we're cooperating and working together as well.

Senator CARPER. All right, thank you.

We've been joined in the hearing by my Chief of Staff, Jim Reilly, and he has with him the President of the University of Delaware, Pat Harker. We were just chatting outside the hearing when I was in and out of the room, and the last question I'm going to ask was actually one that he just raised to my own mind.

I was privileged for a while in the late 1990s to serve on the Amtrak Board of Directors. Kind of ironic. I was Governor at the time. I was nominated by the President, confirmed by the Senate, and served on the Amtrak Board. There is now another person named Tom Carper who serves on the Amtrak Board. It's not a real common name and it's caused enormous confusion for people, who say how can Carper be in the Senate and still serve on the Amtrak Board? It's a different guy, a lot smarter guy, I think.

But I was talking with President Harker when I was out meeting with him in the conference room and I was sharing with him a little bit about what we were discussing here. I reflected back on one

of the things we tried to do during my time on the Amtrak board. We said, Amtrak doesn't do badly in terms of paying for its expenses out of the fare box in densely populated corridors. They actually do pretty well, including the Northeast Corridor. But when running these long distance trains in a lot of cases Amtrak loses its shirt, and the taxpayers end up subsidizing a fair amount of that.

We came up with the notion of how do we do a better job of covering our costs on long distance trains, by in some instances putting on a couple of extra cars on the train, to carry, not people, but commodities, in some cases commodities that are time sensitive in terms of their delivery. We negotiated with the freight railroads to make sure that they didn't object and so that we could use their tracks and provide this service.

I left the Board and the idea, which started off with a fair amount of fanfare, kind of died out. I thought at the time that it was a good idea. I'm still convinced it might be a good idea. President Harker said to me that at an earlier time in his life—he came to us from Wharton, where he was the President of the Wharton School until this past year. But he said as an engineer he had worked on a variety of projects involving subway transit systems within large cities, and he came up with the notion, or folks he was working with came up with the notion, of in some cases putting a rail car along with transit, maybe at the back of the train, to carry commodities from place to place where you have such tie-ups. I saw it yesterday in New York City—with trying to move trucks and delivering goods, not just the taxis, but just a lot of trouble trying to move trucks around the city; and suggested that their idea was to use the transit system, get the stuff underground. UPS or whoever is providing the delivery could still be there and run at the transit stops, run a delivery service once the commodities are offloaded from subways.

Anybody want to take a shot at that, either Amtrak's original idea when I was on the Board or what President Harker sort of outlined? I probably didn't do justice to your idea, Mr. President. But would you just react to either of those ideas?

Mr. BRUBAKER. If I could, as good an idea as it is, of course, Senator, it just did not work in application, for two reasons that I'm aware of, and I'll get you more on this. It was a few years ago. But if memory serves correct, one is of course that people and freight move at different times and at different speeds. When the Amtrak train comes into the 30th Street Station there in Philadelphia, it's there for about 5 minutes, which is not nearly enough time to either unload or hook up additional cars.

Senator CARPER. We weren't talking about moving freight in the Northeast Corridor.

Mr. BRUBAKER. Well, in any event, the point being that wherever the train and the passenger is moving it is usually at a different time and a different speed than the freight.

Then second, in many cases the station is not configured to handle additional cars, and so either it would be hanging out onto the main line or they'd have to go somewhere else to pick up. It just conceptually sounded good, but out there in practice did not work, and I think they consequently pulled the plug on it.

Senator CARPER. The stationmaster in Sioux City says: Fred, where are we going to put all these bananas?

Mr. BRUBAKER. Yes.

Senator CARPER. All right. How about the second half of that? This is the idea that I've done a poor job in describing of President Harker's, but an idea of maybe using transit and, if you will, appending to a subway or a MARC train or something, a vehicle or cars that can carry such things other than people? Does that resonate or make any sense? Is anybody doing it? Maybe somebody's doing it and we don't even know about it.

Ms. GLYNN. I'm not aware of anyone who's doing it, but I am acutely conscious of the fact that, at least in the New York City subway system and I believe in most of the larger ones, we're scrounging for track capacity and station capacity. So except on off hours—and in off hours, of course, all things become possible—to give up that platform capacity to a new use would be probably difficult.

There is of course, particularly on off hours and on weekends, a different situation, and I know that some systems have, for instance, started offering different things such as bicycle cars on weekends, so that people who want to travel with their bicycle, go to the beach, whatever, it is easier for them to do it. It's not quite the freight issue, but it does help give us a little more flexibility when it comes to mobility.

Senator CARPER. We have buses in Delaware, people can take their bike to the beach, and take it on a bus.

Yes, sir?

Mr. BRUBAKER. We may also want to examine some of the safety implications of such an arrangement, because obviously passenger rail cars are built for strict safety standards, whereas freight cars are built to lesser safety standards, and what happens when you combine the two. It could be pretty—there could be some pretty significant unintended consequences.

Senator CARPER. Fair enough.

I have one more question. I won't ask it here; I'll ask it for the record, and if you'll take a moment and respond to it. And I think other colleagues of ours may have questions that we'd like to pose to you. If you'd take a few minutes to respond to those questions, we'd all be grateful.

Let me just ask our staff here, any idea how long we leave the record open for questions to be posed for our witnesses? 2 weeks? 2 weeks.

Again, we appreciate very much your being here and responding to our questions. It's been enjoyable and I think highly informative, and as it turns out this is important stuff. So thank you very much.

With that, this hearing is adjourned. Thank you.

[Whereupon, at 3:56 p.m., the hearing was adjourned.]

APPENDIX

PREPARED STATEMENT OF HON. SUSAN M. COLLINS, U.S. SENATOR FROM MAINE

Mr. Chairman, the skyrocketing price of diesel fuel is putting an increasing strain on our trucking industry. To illustrate the problem, consider this fact. In 1999, a Maine truck driver could purchase $500 of diesel fuel and drive from Augusta, Maine, all the way to Albuquerque, New Mexico. Today, a driver who purchases $500 of diesel and leaves Augusta would not even make it to Altoona, Pennsylvania, and because diesel prices continue to increase, the problem is only getting worse.

I recently met with Kurt Babineau, a small business owner and second generation logger and trucker from the Penobscot County town of West Enfield, Maine. Like so many of our truckers, Kurt has been struggling with the increasing costs of running his operation. All of the pulpwood his business produces is transported to Verso Paper in Jay, Maine, a 165-mile roundtrip. This would be a considerably shorter trip except that current Federal law forbids trucks weighing more than 80,000 pounds from driving on Interstate 95 north of Augusta. Instead, these heavy trucks are forced off the modern four-lane, limited-access highway, and onto smaller, two-lane secondary roads that pass through cities, towns, and villages.

This law not only increases the distance that trucks must travel, it increases their travel time and results in a higher consumption of diesel fuel. In fact, Kurt estimates that permitting his trucks to travel on all of Interstate 95 would save him 118 gallons of fuel each week. At approximately $4.50 a gallon, and including savings from his drivers spending less time on the trip, he could save more than $700 a week, and more than $33,000 and 5,600 gallons of fuel each year. These savings would not only be beneficial to Kurt's bottom line, but also to his employees, his customers, and to our Nation as we look for ways to decrease the overall fuel consumption.

To help provide assistance to our truckers, I recently introduced the Commercial Truck Fuel Savings Demonstration Act, with my senior colleague Senator Olympia Snowe as the chief cosponsor. Our legislation would create a two-year pilot program that would permit trucks carrying up to 100,000 pounds to travel on the Federal Interstate system whenever diesel prices are at or above $3.50 a gallon.

Permitting trucks to carry up to 100,000 pounds on Federal highways would lessen the fuel cost burden on truckers in three ways. First, raising the weight limit would allow more cargo to be put into each truck, thereby reducing the numbers of trucks needed to transport goods. Second, trucks carrying up to 100,000 pounds would no longer need to move off the main Federal highways where trucks are limited at 80,000 pounds and take less direct routes on local roads requiring considerably more diesel and extended periods of idling during each trip. Finally, trucks traveling on the interstate system would save on fuel costs due to the much superior road design of the interstate system as compared to the state and local roads.

Trucking is the cornerstone of our economy as most of our goods are transported by trucks at some point in the supply chain. Some independent truckers in Maine have already been forced out of business due to rising fuel costs. More businesses are facing a similar fate if relief is not provided. The Commercial Truck Fuel Savings Demonstration Act offers an immediate and cost effective way to help our Nation's struggling trucking industry, and individual drivers like Kurt Babineau.

Thank you for the opportunity to submit my statement, which I hope will generate increased awareness of the need to address the problems facing the movement of freight by truck throughout the country.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. FRANK R. LAUTENBERG TO HON. PAUL R. BRUBAKER

Question. The Bush Administration has tried to eliminate one of the Federal Government's most powerful public-private partnership tools when it comes to freight investment—the Railroad Rehabilitation and Improvement Financing (RRIF) pro-

gram. This program provides low-interest loans and loan guarantees for rail infrastructure projects and could help fund projects to reduce major chokepoints like in Chicago. Why has the Bush Administration tried to kill this program, given its tremendous potential to help improve our infrastructure?

Answer. The President's 2009 budget does not propose terminating the RRIF program, but instead proposes reforming it to improve its effectiveness. Likewise, the Administration has sent authorizing legislation to Congress to sharpen the program's focus. The Administration continues to accept and process loan applications and administer the Railroad Rehabilitation and Improvement Financing (RRIF) program.

However, the Administration questions the program's current design and purpose for several reasons. First of all railroads—including Class I railroads that generate tens of billions of dollars in annual revenue—are fully eligible for credit assistance under the program. Privately-owned rail companies that have access to the Nation's financial markets have powerful competitive incentives to effectively tap into those markets. The Administration has proposed limiting RRIF eligibility to small railroads only which are most in need of assistance. Second, in the event of a default on a RRIF loan, the Federal Treasury would be responsible for covering consequent losses. Given that Congress expanded the program's size by 10-fold—from $3.5 billion to $35 billion—those losses could be substantial. The Administration would limit the amount of funds a railroad could borrow, corresponding with the focus on small companies. Finally, railroads already benefit from several 2004 changes to the tax code, including relief from diesel fuel taxes. The Administration has proposed legislative reforms for the program to prioritize assistance to meet demonstrated needs and to ensure the efficient use of taxpayers' funds and to better protect the Federal interest. The Department has also recently published a notice of proposed rulemaking as a part of the process for administratively addressing some of the concerns with the program.

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