

PRELIMINARY NATIONAL RAIL PLAN



**Preliminary
National Rail Plan**

**The Groundwork for Developing
Policies to Improve the United
States Transportation System**

October 15, 2009

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Preliminary National Rail Plan

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Executive Summary

The Passenger Rail Investment and Improvement Act of 2008 (PRIIA) directed the Administrator of the Federal Railroad Administration (FRA) to develop a Preliminary National Rail Plan (PNRP or Preliminary Plan) to address the rail needs of the Nation. The PRIIA also directed FRA to provide assistance to States in developing their State rail plans in order to ensure that the Federal long-range National Rail Plan is consistent with approved State rail plans. Subsequent to PRIIA, the American Reinvestment and Recovery Act of 2009 (Recovery Act) sets the framework for the development of true high-speed rail in the United States. This Preliminary Plan is, therefore, an important first step in an ongoing process.

This Preliminary Plan lays the groundwork for developing policies to improve the U.S. transportation system. Its goals are consistent with the top goals of the U.S. Department of Transportation’s (DOT): to improve safety, to foster livable communities, to increase the economic competitiveness of the United States, and to promote sustainable transportation. The important attributes of rail—safety, fuel efficiency, and environmental benefits—can meaningfully assist in achieving these goals.

CURRENT RAILROAD BENEFITS TO THE TRANSPORTATION NETWORK		
	FREIGHT	PASSENGER
SAFETY	Rail and intermodal rail can enhance safety in competitive corridors	Average fatalities per year from 2002-2008 = less than 9
ENERGY	1.9 to 5.5 times more fuel efficient than truck	Consumes 21% less energy per passenger mile than automobiles
LIVABLE COMMUNITIES	Mitigates urban congestion	Encourages efficient land use
ECONOMIC GROWTH	Reduces logistics costs	Improves regional interconnectivity
ENVIRONMENT	Reduces greenhouse gases and pollutants	Reduces greenhouse gases and pollutants

Today, rail is part of a complex national system for the movement of people and goods. Passenger and freight transportation are closely interlinked in that people and goods use the same infrastructure for transportation by highway and rail. Therefore, a National Rail Plan must be developed with an awareness of the transportation needs and demands of both passengers and freight, both of which increasingly move “intermodally,” that is they use the most suitable mode of transportation for each segment of a particular journey. The long-range National Rail Plan will assist in developing strategies that exploit the

strengths that are inherent in each mode of transportation, and leverage those strengths to improve U.S. transportation as a whole.

The traditional role of the FRA has long been to promote and oversee railroad safety, and safety remains a focus of FRA. Legislative directives in the last year, most notably PRIIA and the Rail Safety Improvement Act of 2008 (RSIA), have given FRA additional broad responsibilities to administer and manage funds that will improve rail transportation. The new scope and direction provided by PRIIA and RSIA, in combination with the Recovery Act, has made FRA’s participatory role in rail transportation projects comparable to that of other modal administrations in the Department.

This Preliminary Plan sets forth the FRA's proposed approach to developing the long-range National Rail Plan, including our goals and objectives for the greater inclusion of rail in the national transportation system. Although this Preliminary Plan does not generally offer specific recommendations, it identifies a number of issues that this agency believes should be considered in formulating the National Rail Plan. In short, it is designed to create a springboard for further discussion. The FRA especially looks forward to input from the States, and freight railroads, who are expected to provide valuable information and perspectives. The end focus is on the shippers and riders who use the rail system. We welcome the participation of all transportation stakeholders on these issues as well as others that may be presented, as we develop the long-range National plan. Outreach efforts such as the Rail Safety Advisory Committee and the high-speed rail development efforts have been very successful. These and other activities have given FRA a reputation for strong and extensive outreach; the development of a National Rail Plan will be in line with this model.

Background and Context of the Plan

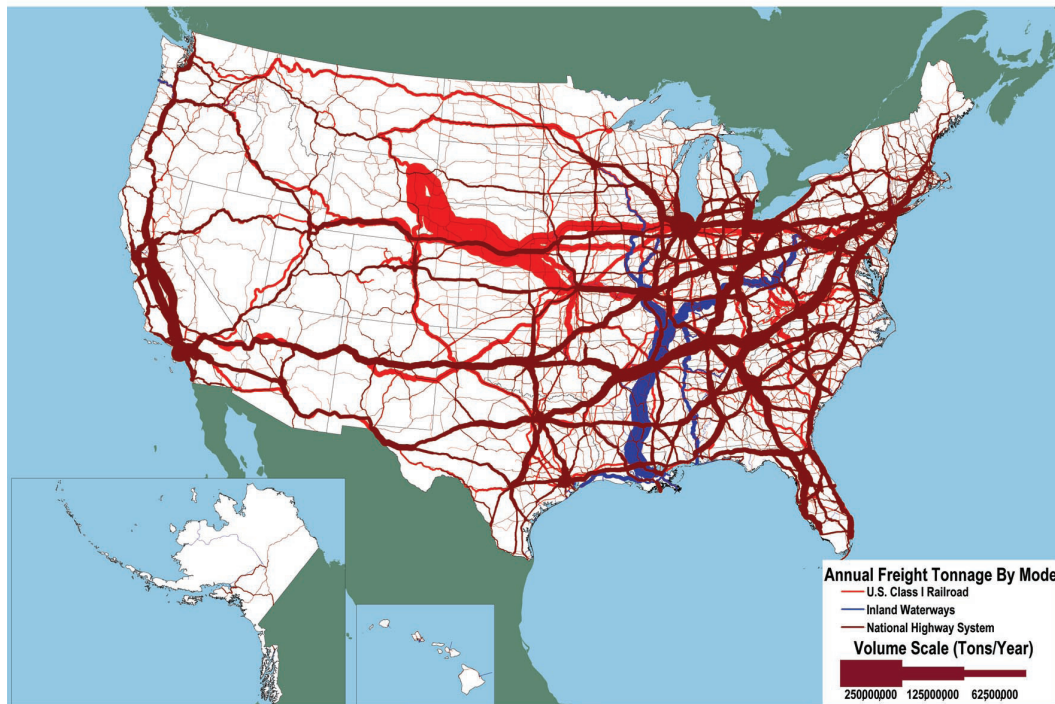
The RSIA reauthorized FRA and the current safety program through 2013, and it proposes initiatives to enhance rail safety by adding inspectors and new programs. The RSIA also advances high-speed rail by opening avenues for Federal investments in infrastructure improvements. Companion legislation, PRIIA, was enacted on October 16, 2008. Section 307(b)(j) of the Act directs the Administrator of FRA to: (1) provide assistance to States in developing State rail plans, (2) develop a long-range National Rail Plan consistent with both approved State rail plans and the rail needs of the Nation, and (3) develop a PNRP within a year of the date of enactment.

Additionally, PRIIA directed the Administrator to develop partnerships with the freight and passenger railroad industry concerning public rail development, support intermodal rail development and high-speed rail development, ensure that programs and initiatives developed under this section benefit the public, and support regional and national transportation goals. The Administrator was also directed to assist providers of rail service and owners of rail infrastructure in integrating passenger-freight service on shared rights-of-way in response to joint requests to help assess operations and capacity, capital requirements, and operating costs.

The directives of this section of PRIIA are numerous, and while certain provisions will require additional time due to new requirements, they nonetheless need to be considered in this Preliminary Plan. This PNRP sets forth the issues, methodology, and framework that must be taken into account in the future development of the first long-range National Rail Plan, which, as noted above, must be consistent with the approved State rail plans. This PNRP also presents background material on various aspects of our current system of rail transportation, and addresses the key issues that must be resolved in order to develop a modern and efficient passenger and freight rail system that works in harmony with other modes of transportation. Such a system will enable DOT to meet future national needs as well as achieve current departmental goals.

The railroad industry today is a major component of a mature transportation network that also includes highway, waterway, transit, pipeline, and air (see Figure 1 for rail, highway and waterway tonnage). Together these systems provide, singularly or intermodally, the transportation that is required for freight and passengers. Over the past decades, the network has improved in response to shippers and travelers who have demanded more efficiencies from both the transportation modes and the intermodal connections. As a result, freight shippers and their customers have been able to extract logistic costs from the supply chain, and commuter and intercity rail passengers can sensibly choose the type of transportation that best meets their expectations in terms of time and cost. As this trend continues, higher quality rail service will attract an increasing share of business from shippers and from traveling passengers.

Figure 1. - Tonnage on Highways, Railroads and Inland Waterways: 2002



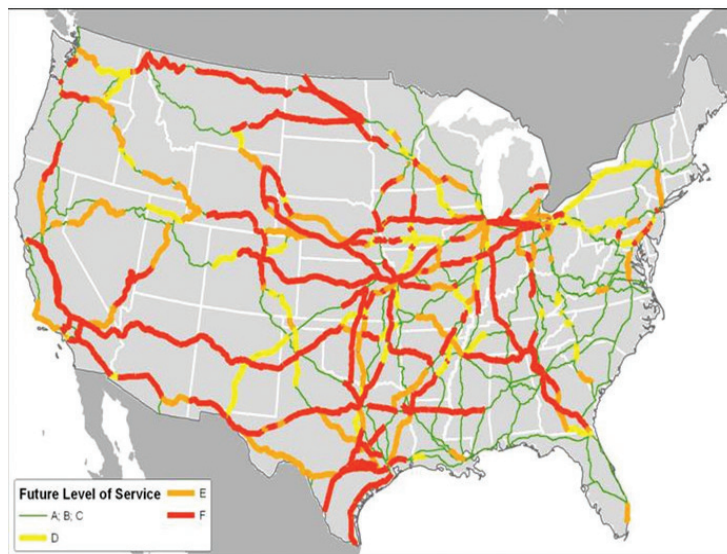
Sources: Highways: U.S. Department of Transportation, Federal Highway Administration, Freight Analysis Framework, Version 2.2, 2007. Rail: Based on Surface Transportation Board, Annual Carload Waybill Sample and rail freight flow assignments done by Oak Ridge National Laboratory. Inland Waterways: U.S. Army Corps of Engineers (USACE), Annual Vessel Operating Activity and Lock Performance Monitoring System data, as processed for USACE by the Tennessee Valley Authority; and USACE, Institute for Water Resources, Waterborne Foreign Trade Data, Water flow assignments done by Oak Ridge National Laboratory.

In the United States today, two distinctly different rail systems exist: freight railroads and passenger railroads. Freight railroads are privately owned and operated; they are in business to make a profit for their stockholders. Passenger railroads are publicly subsidized by taxpayers; they provide a public service by offering a safe and environmentally friendly travel option. These two different types of rail transportation usually occur in the same corridor and on the same infrastructure.

By many measures, the U.S. freight rail system is the safest, most efficient and cost effective in the world. Generally speaking, and in relative comparison to other modes, freight railroads perform their functions and maintain the freight rail infrastructure without the need for government funds. Freight rail infrastructure maintenance and capacity enhancements, however, can only occur with Federal legislation and policies that allow rail carriers to earn revenues that are sufficient to encourage their continued investment in the system. Their investment meets National needs by enhancing safety, reliability, and capacity. Before 1980, when railroads were partially deregulated, they focused on survival. In recent years, they have been thriving and privately funded freight railroads have focused on enhancing the reliability of their service and their intermodal capacity. The recent economic downturn has slowed but not eliminated targeted projects that will enhance freight railroads capacity and competitiveness, thereby positioning them to better handle traffic as the economy recovers.

These investments are important to meet future growth. The Department estimates that tonnage on the railroad system will increase by 88 percent through 2035. Taking this growth into consideration, Figure 2 shows future rail volumes based upon current corridor capacity. Levels of service “A, B, and C” are corridors operating below capacity. Levels of service “D and E” are operating near capacity and level of service “F” is operating above capacity with congestion affecting the network.

Figure 2. - Future Corridor Volumes Compared to Current Corridor Capacity - 2035 Without Improvements



Source: National Rail Capacity Study, 2007

Our Nation’s intercity passenger rail service is provided by the National Railroad Passenger Corporation (Amtrak), which was created in 1971 to relieve the freight railroads from their common carriage obligation to provide passenger service. The current passenger services, (see Figure 3), which serve as an important component of a national transportation system, must be improved and intermodal connections enhanced. The PRIIA reauthorized Amtrak for 5 years and provided funding to improve the U.S. rail passenger network. To better develop high-speed rail service, whether operated by Amtrak or another entity, the Recovery Act, signed into law by President Obama on February 17, 2009, contains funding and sets forth requirements for the development of high-speed intercity rail. This investment will serve as an important economic stimulus, while improving intercity passenger rail service in urban areas and paving the way for high-speed rail.

Figure 3. - Amtrak Passenger Routes



Currently, there are more than 20 commuter rail systems that serve 25 major metropolitan areas. During the 10 years between 1997 and 2007, annual commuter rail ridership increased by 28 percent—by almost 100 million riders—and in 2007, these commuter rail systems operated 7,000 route-miles and carried approximately 1.7 million daily riders. These systems are supported by State, local, and Federal funding, and they operate over rights-of-way that may be publicly owned, or owned and maintained by freight railroads. As commuter services grow, and as high-speed intercity rail brings more passengers directly into city centers, the importance of easy access to local transit services will increase. The number of rail corridors that reach through metropolitan areas and into the heart of cities, however, is limited.

Long-term trends demonstrate that the growth in intercity and commuter passenger rail services will continue. Most passenger service, however, occurs on rail infrastructure that is owned and operated by freight railroads; only a small amount of rail infrastructure is owned by passenger carriers. Although some rail infrastructure is passenger-only, the vast majority of rail route-miles are traversed by freight.

Passenger and freight rail needs are vastly different. Yet because they are inescapably linked and amenable to economies of scale and joint benefits, the development of a National Rail Plan cannot consider one method in isolation from the other. Both passenger and freight rail operations can interfere with one another, and the delay of either passengers or freight seriously diminishes productivity and customer satisfaction.

Moreover, the rail plan must be developed in consideration of all other modes of transportation within the entire network. With proper policies and positioning, rail can better serve its role as a complementary component of that network. Shippers and passengers benefit from options that include intermodal freight and passenger transportation. Therefore, any plan must consider how to improve efficiencies not only within that particular mode, but also on how the system can collectively work together to provide service enhancements for all users of transportation services.

The National Rail Plan must be vigilant of the dynamic transportation needs of the Nation and remain flexible to accommodate changes in trade patterns and market conditions. For example, the completion of the Panama Canal expansion project in 2014 could significantly alter U.S. and international trade patterns and shift current freight flows to or from different port facilities with subsequent increases in traffic on corridors which are not accustomed to such intensive use.

By recognizing that the individual modes of transportation form an integrated transportation system, the Nation can utilize the strengths that are inherent in each mode, thereby optimizing the entire system.

Objectives for Rail as part of a National Transportation System

Increasing Passenger and Freight Rail Performance Will Improve National Transportation System Performance

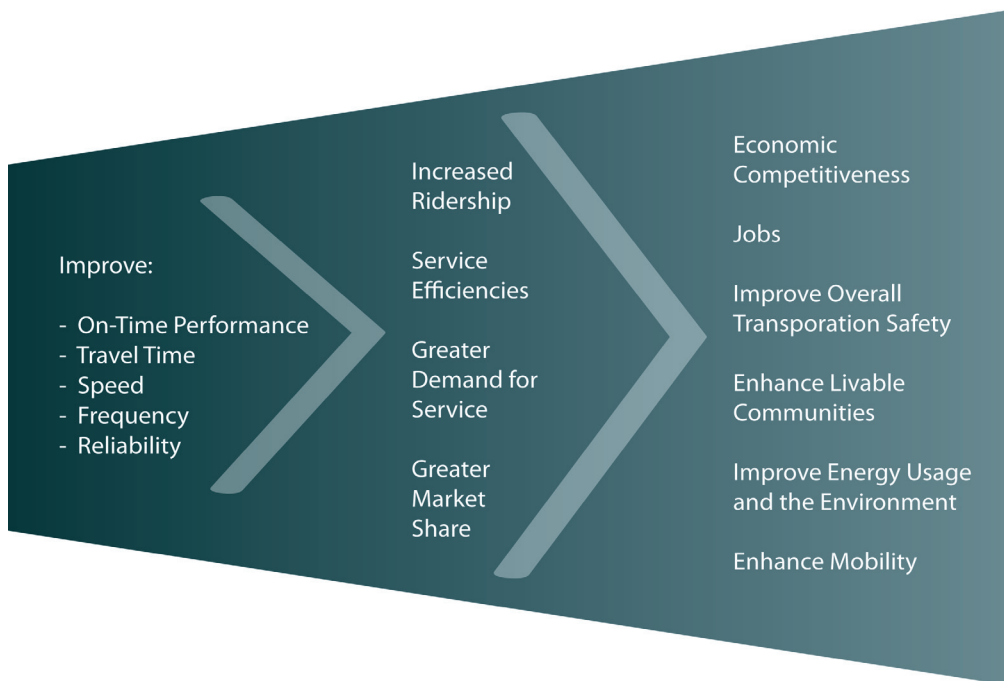
The demand for rail passenger transportation depends on the performance of the system. Late passenger trains and inadequate amenities drive away customers, while on-time, frequent and comfortable trains draw increased patronage. Passengers switch to rail when the combination of the positive attributes (safety, speed, reliability, comfort, and convenience) outweighs the cost of transportation alternatives, that is, when the “total package” is viewed as preferable. For this reason, improving rail’s performance will enhance the performance of the national transportation system as a whole. Experience around the world has shown that high-speed and intercity passenger rail systems will require a sustained investment.

Freight shippers, for example, consider not just the cost of rail, but its reliability and convenience. Shippers of freight, and particularly high-value freight, cannot afford slow or undependable transportation services, and when these difficulties result in lost market share, arguments about the superior safety and fuel efficiency of rail fall on deaf ears. If freight rail is to play a larger role in the national transportation system, its performance must improve. This will require expanding capacity, improving connections, reducing chokepoints, and providing new and expanded services. And where rail does not provide direct service to the originator or end-user, seamless service for the “last mile” is also key. At the same time, regulatory and institutional factors that increase costs and impose unequal burdens on performance may have to be revised to better serve the transportation industry and the Department’s goals. Finally, industry and government, working together, must develop and harness new technologies to further improve rail safety, productivity, and performance.

Integration of All Transportation Modes: A More Complementary Transportation System

The inclusion of new transportation options will allow people and companies to make smarter choices regarding costs and services. Greater integration of rail into the transportation network, where it makes sense to do so, will help the Nation to achieve its ambitious goals. When relative costs and services lead to the increased use of rail, society will experience improved safety, reduced congestion, and a reduction in the need for petroleum with subsequent reductions in pollution and greenhouse gas emissions. In many cases, measures to improve rail performance beyond current levels will further increase rail’s capacity to expeditiously move additional freight and passengers.

Using information provided by the States and other stakeholders, including freight railroads and passenger rail operators, the National Rail Plan will set forth a methodology that can more accurately determine what capacity is needed and where intermodal connections need to be improved. This final Plan will recommend strategies to fund capacity enhancements, as well as identify public benefits and consequences. The plan will strive to identify and encourage choices in transportation that help achieve the Nation’s and the Department’s goals.



Identify Projects of National Significance

One purpose of this plan is to consider how to achieve those critical improvements in the rail system that cannot be realized solely through current public or private arrangements. Rail projects such as the Kansas City Flyover and the Alameda Corridor are examples of successful public-private partnerships

that are funded by various means, including substantial funding from private sources. As in the case of the Alameda Corridor, user fees can be used to repay a portion of the initial outlays by government. Such projects mirror the manner in which early highway projects were financed by a variety of funding and recouped much of the cost of the project through user fees in the form of tolls.

The privately owned freight rail system, however, must generally finance improvements through current cash flow based on expectations of future demand. Corporate railroads have a responsibility to generate income for their shareholders and look for ways to maximize their return on investment. However, activities that may provide a broad public benefit may not adequately contribute to (and may even harm) efforts to increase revenue or reduce expenses. By comparison, the national highway system, designed to be maintained by user fees in the form of fuel taxes, is not, and has never been, expected to “turn a profit” for its owners. Nonetheless, the national highway system provided speed and flexibility, and revolutionized travel and freight transportation during the 40 years of its development.

There are critical rail projects that might be pursued if additional resources were available. This is particularly true for joint freight-passenger improvements, where the benefit for either mode (when viewed independently) may not be enough to justify a project, although the total benefit would warrant it. New high-speed intercity rail projects provide another example where coordination will be needed among a number of different local jurisdictions. The long range National Rail Plan will consider methods of identifying these “projects of national significance” and propose financing mechanisms. In addition, the Plan will evaluate alternative strategies for financing freight and passenger rail needs.

Just as the formation of the interstate highway system took shape in concert with the development of corridors, rail service enhancements and additions to infrastructure must be coordinated within the context of traffic flows, corridors, and route structures that are in harmony with State and regional transportation plans. As an integral part of the national transportation system, improvements to rail service should be harmonized with existing and future highways, transit systems, airports, and ports.

Provide Increased Public Awareness

The achievement of these goals will require public support and awareness of all modes of transportation. It is therefore vital to stimulate public awareness of the issues and potential benefits from improvements in various modes of transportation, including rail. With this in mind, the long range National Rail Plan will include an extensive public outreach effort. Moreover, the Department will undertake efforts to develop and disseminate material to the public on the potential of rail transportation in partnership with other modes. This is consistent with the Department’s resolve to form a cohesive and efficient multimodal transportation network. Consequently, the long range National Rail Plan will include provisions for ongoing education and feedback on the numerous transportation issues involved.

Need for a National Rail Plan

As the Nation seeks to rebalance its transportation system, much attention has been focused on rail. In the last year, Congress has enacted several important pieces of legislation: RSIA, PRIIA, and the Recovery Act. Efforts are currently underway for legislation for surface transportation reauthorization. A National Rail Plan, developed in harmony with the states, can provide direction by developing a common understanding and aligning goals.

The Recovery Act contains more than \$48 billion in vital transportation funding to help bring about economic recovery and make lasting investments in our Nation's infrastructure. This Act provides an investment in our Nation's transportation infrastructure and in jobs for Americans. The resources made available for transportation infrastructure in the Recovery Act will primarily be used for the modes of transportation that have been traditionally funded publicly. However, the Recovery Act specifies that certain investments, funded through the Federal Highway Administration or the Office of the Secretary of Transportation, can be used for meaningful transportation enhancements regardless of mode; these funds, therefore, are available for rail infrastructure improvements. In addition, for the first time, the Recovery Act designated \$8 billion specifically for the development of high-speed intercity rail in the United States.

Rail can deliver on the Department's goals. For both passenger and freight, rail transportation is a safe, fuel efficient, and environmentally friendly mode of transportation. How rail transportation contributes to the Department's goals is further explained below.

Development of Passenger High-Speed Intercity Rail: A New Transportation Vision

To help address the Nation's transportation challenges, the Federal Government is determining how and where to invest in an efficient, high-speed intercity passenger rail network, which would consist of 100–600 mile intercity corridors that connect communities across America. (See Figure 4.) This vision builds on the successful highway and aviation development models by adding a 21st century solution that focuses on a clean, energy-efficient option (even today's modest intercity passenger rail system consumes 21 percent less energy per passenger-mile than automobiles, for example). But developing a comprehensive high-speed and intercity passenger rail network would require a long-term commitment at both the Federal and State levels. In addition to the \$8 billion in the Recovery Act, consideration is currently being given at all levels of government to increase funding for high-speed rail.

Over the past two decades, the Federal Government has taken small steps to lay the groundwork for an expansion of high-speed intercity rail and intercity passenger rail. The funding provided in the Recovery Act represents a significantly greater Federal commitment to high-speed intercity rail development in the United States.

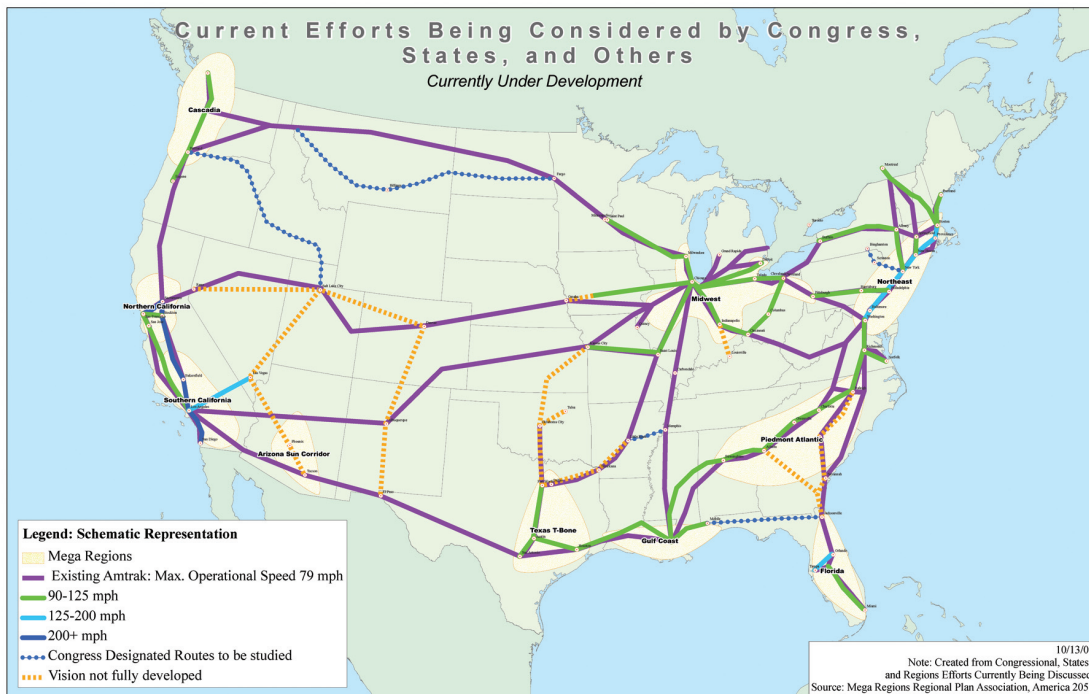
The first steps to advance passenger rail will emphasize strategic investments that will yield tangible benefits to intercity rail infrastructure, equipment, performance, and intermodal connections over the

next several years, while also creating a “pipeline” of projects to promote future corridor development. Federal and State governments face a difficult fiscal environment in which to balance critical investment priorities, and many will have to ramp up their program management capabilities.

The United States has a dwindling pool of expertise in the field of passenger rail and a lack of manufacturing capability. But future investment in passenger rail could lead to a resurgence of this industry and require new technologically advanced designs. Equipment could be constructed in manufacturing plants, requiring advanced subsystems along with primary materials such as high-quality steel.

This presents a challenge, but also an opportunity. Along with the renewed Federal commitment proposed here, the country’s success in creating a balanced and sustainable transportation future will require that we work to overcome these challenges through strong new partnerships among State and local governments, railroads, manufacturers, and other stakeholders.

Figure 4. - High-Speed/Intercity Rail Corridors under Consideration by Multiple Entities



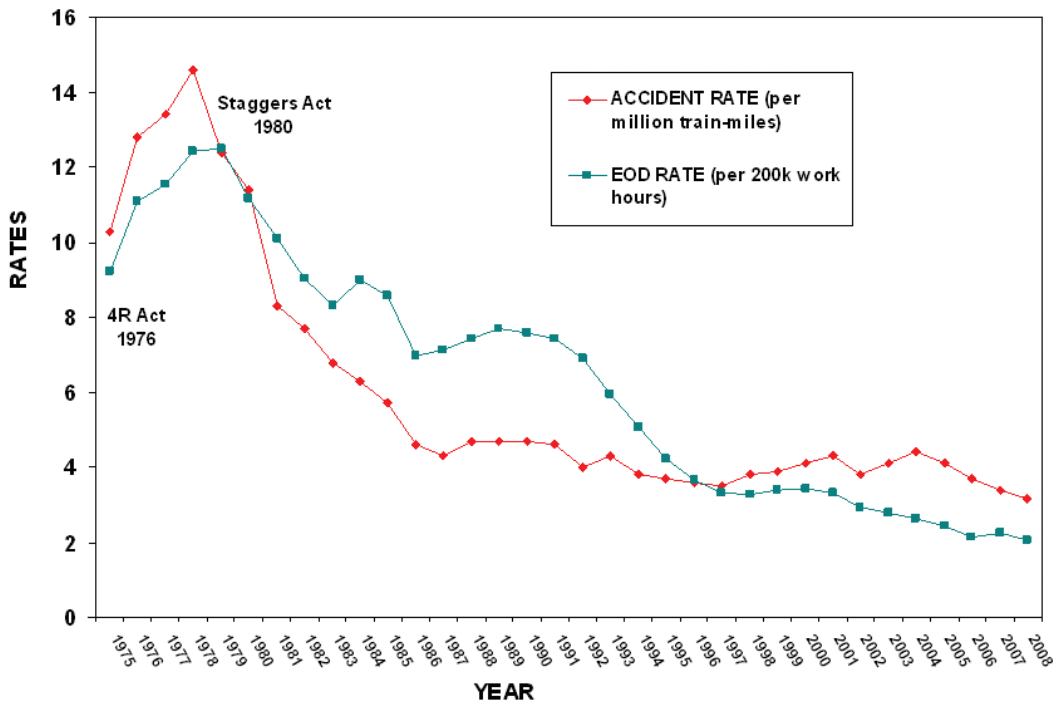
To Improve Safety

In numerous ways and on many levels, FRA has played a key role in the ongoing development and progression of safety in rail transportation. Although a strong safety culture already exists in the freight and passenger railroad environments, there is always room for improvement. Owing to the fact that rail transportation occurs on private rights-of-way and away from the public domain for most of its journey,

it largely avoids interacting with the public. In fact, the preponderance of casualties, both injuries and fatalities, involve traffic at grade crossings and/or people trespassing on railroad property. Due to this separation between railroads and other traffic, shippers and passengers who use rail in lieu of public infrastructure accrue measurable safety benefits. Railroad passengers are significantly safer because of safety regulations, standards, and technology that are designed and built into passenger equipment and operations. On a per-mile basis, rail passengers are exponentially safer than automobile occupants. Whether hauling freight, taking commuters to work, or moving intercity passengers, rail is one of the safest modes available. The railroad environment, however, is not without its dangers; indeed, it can be unforgiving in certain situations. Because of this, FRA's most critical mission is safety.

The railroad industry has experienced considerable improvement in safety over the past several decades, with significant annual declines in casualties and rail-related accidents and incidents, including train accidents, highway-rail grade-crossing incidents and employee accidents. These promising trends are all the more impressive because they occurred during an era of ever-increasing train-miles. Since 1980, train-miles, a measure of exposure, have increased by 27 percent while accidents per million train-miles have declined by 71 percent. (See Figure 5.)

Figure 5. - Train Accident and Employee on Duty Casualty Rates



Over the past decade, both the accident rate and the employee-on-duty casualty rate have flattened. To build upon these successes, FRA began the Risk Reduction Program (RRP), an initiative to reduce accidents and injuries beyond the current downward trend. The program capitalizes upon strong safety cultures already in place by helping the rail industry establish voluntary programs that identify and address risk, and which include measurable goals and corrective actions. Congress later mandated the use of the RRP in the Railroad Safety Improvement Act of 2008.

New technologies have the potential to increase safety even further; two notable examples are positive train control (PTC) and electronically controlled pneumatic (ECP) brakes. PTC systems integrate command, control, communications, and information systems in order to control train movements with safety, precision, and efficiency. These PTC systems will improve railroad safety by significantly reducing the probability of collisions between trains, “overspeed” accidents, and casualties to roadway workers. With FRA guidance and involvement, railroads have tested and demonstrated different types of PTC in signaled and non-signaled territory. The Rail Safety Improvement Act requires the installation of PTC by 2015 on all Class I¹ mainline track where certain hazardous materials are transported, and on mainline track over which intercity or commuter rail passenger transportation is regularly provided. The FRA has begun the rulemaking process for PTC implementation.

Another proven technology, ECP brakes, can significantly enhance rail safety and efficiency. Under some conditions, trains operating with ECP brake systems can stop in approximately half the time and distance as compared to trains equipped with conventional brakes. With ECP brakes, locomotive engineers have better control of their trains because they can gradually apply or release the brakes. In addition, the use of ECP brakes may offer major benefits in fuel savings, train handling, car maintenance, and network capacity. Over the long term—and, in part, because of shorter stopping distances—ECP brakes will allow longer trains to safely operate closer together, permitting greater traffic flow and thereby increasing capacity on existing infrastructure.

To Improve Fuel Efficiency

Railroads offer low rolling resistance, even at high speeds. This inherent feature of rail transportation saves fuel when transporting freight and passengers. Petroleum consumption is, of course, a growing national concern, not only as an economic drain, but also because increasing global competition for petroleum supplies raises national security concerns. Moreover, when petroleum is consumed in transportation, greenhouse gases (GHG) are released into the atmosphere; more efficient methods of transportation will reduce GHG and other harmful emissions.

¹ As defined by the Surface Transportation Board, Class I railroads are rail carriers with operating revenues greater than \$359.6 million per year.

According to a U.S. Department of Energy study, depending on a number of factors including passenger load-factor, distance traveled and weight, passengers traveling by rail use 21 percent less BTUs² per mile on average than those traveling by automobile, and 17 percent less BTUs per mile than those traveling by air for short-haul flights on average. Importantly, passengers riding on intercity trains that are powered by electricity in the Northeast consume zero petroleum. Electricity for this region of the Nation is generated from a variety of energy sources. Examining information provided by the Energy Information Administration for the States in which electrically-powered intercity passenger trains operate (MA, CT, NY, PA, RI, DE, and MD) for the month of June 2009, indicates that in total, over 36 percent of the electrical power was generated by nuclear energy. Natural gas and hydroelectric power accounted for about 24 percent and 7 percent, respectively. About 30 percent of the energy was generated from coal. The balance is from other sources, such as wind. Technologies such as regenerative braking, which captures the electrical energy that is generated by decelerating a train, can further increase energy efficiency.

The railroad industry is one of the most fuel-efficient freight transportation modes in the Nation. A 2009 study comparing rail and truck fuel efficiency³ demonstrated that, depending on the route and the commodity carried, railroads are 1.9 to 5.5 times more fuel-efficient than trucks. According to Oak Ridge National Laboratory, on a BTU per ton-mile basis, rail is 1.7 times more efficient⁴ than domestic waterborne commerce.

Railroads have worked to improve their fuel efficiency and have shown gains of over 23 percent from 1990 through 2007, measured as average gallons of fuel consumed per revenue ton-mile. Most of these improvements were realized before the significant rise in fuel prices in 2008. These gains are the result of a mix of technical improvements in railroad infrastructure and improvements in equipment and operations. As new locomotive technologies are perfected, including hybrid systems and techniques to reduce aerodynamic drag, further gains are being realized.

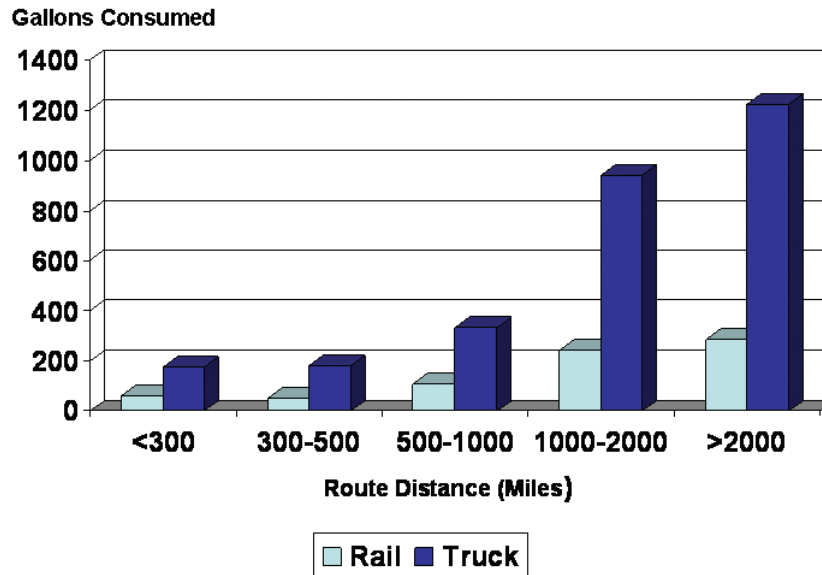
Freight rail is much more fuel efficient than transportation by truck, although the level of rail fuel efficiency varies considerably by freight corridor and commodity when making a direct comparison. The 2009 fuel efficiency study found that the benefits of shipping by rail increase with route distance. As route distance increases, the advantage of rail's fuel efficiency is compounded. Similarly, as commodity volume and weight increase, it takes more trucks to replace a single rail carload of freight. Figure 6 shows the average gallons of fuel consumed when shipping by rail compared to equivalent shipments moving by truck.

² BTU is an abbreviation of "British thermal unit."

³ *Comparative Evaluation of Rail and Truck Fuel Efficiency on Competitive Corridors*, ICF International, published by the Federal Railroad Administration (2009) pp. 1-9.

⁴ Table 2.16 Transportation Energy Data Book, 28th Edition (2009).

Figure 6. - Rail vs. Truck Fuel Savings by Distance Traveled



On average, for comparative moves within the mileage blocks and commodities studied, the fuel consumed for shipments traveling less than 300 miles is 58 gallons on rail, while truck consumes 173 gallons. For shipments studied travelling 300–500 miles, rail consumption is 49 gallons and trucks use 180 gallons. Figure 6 illustrates that the results are similar for the 500–1,000 mile range with rail consuming 107 gallons to truck’s 333 gallons. When moving to the 1,000-2,000 mile range, the fuel consumption between the modes widens with rail using 241 gallons to truck’s 943 gallons. The largest fuel savings are realized for moves over 2,000 miles. Here, rail consumes 284 gallons but the equivalent move using trucks would consume 1,227 gallons.

Fuel savings for an entire long-distance freight train are particularly impressive. Depending on the type of the freight and the distance hauled, a single cross-country intermodal double-stack train⁵ can replace 280 trucks and save up to 80,000 gallons of fuel.

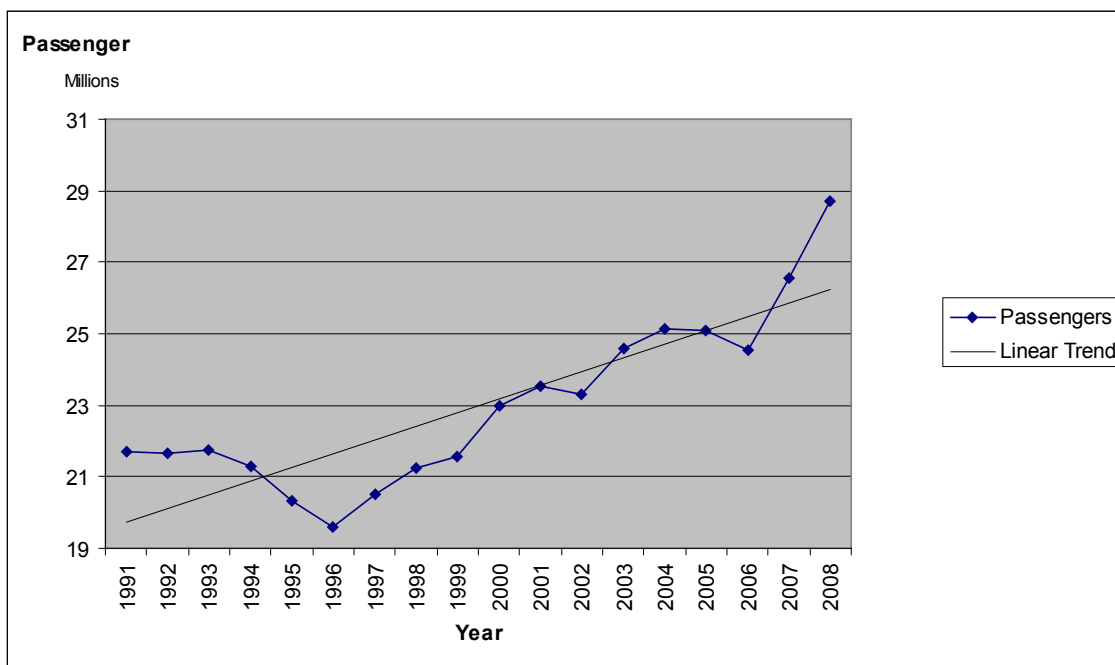
⁵ Intermodal freight is hauled in containers moved by truck, rail, barge, or container ship. On intermodal double-stack trains, the containers are stacked two containers high, doubling the amount of trucks this type of train can replace.

To Foster Livable Communities

By providing enhanced intercity and commuter passenger rail transportation options, rail can increase a community’s vitality and livability. Rail corridors offer the use of private rights-of-way into city centers, putting intercity passengers within easy walking distance of their destinations or convenient transit connections to reach those destinations. From large cities to small towns, restaurants and shops often locate near center-city train stations that can serve as hubs of retail and business activity.

Although Amtrak ridership has declined recently due to the economy, it has generally increased at a steady pace during the last 10 years. (See Figure 7.) As high-speed intercity rail services are expanded beyond the Northeast, the livability of cities will be enhanced. City centers are often the focus of transit systems and generally have the highest concentration of destinations, whether business or personal. By connecting city centers with convenient rail links, center city accessibility is leveraged exponentially, permitting residents of one city to easily enjoy the opportunities of neighboring cities without the need for automobile or air travel, which may be inconvenient for moderate distance trips between city centers. Moreover, the rail mode is often more environmentally friendly. Intercity rail can also work synergistically with transit by encouraging more people to use transit to get to rail stations. The result will be better use of transit services, which will stimulate growth of development more attuned with livable communities not relying on auto access.

Figure 7. - Amtrak Ridership



New stations, platforms and rail passenger cars are being constructed with ease of accessibility built into the design. Using rail passenger services, people with disabilities can travel between cities and connect to accessible transit services.

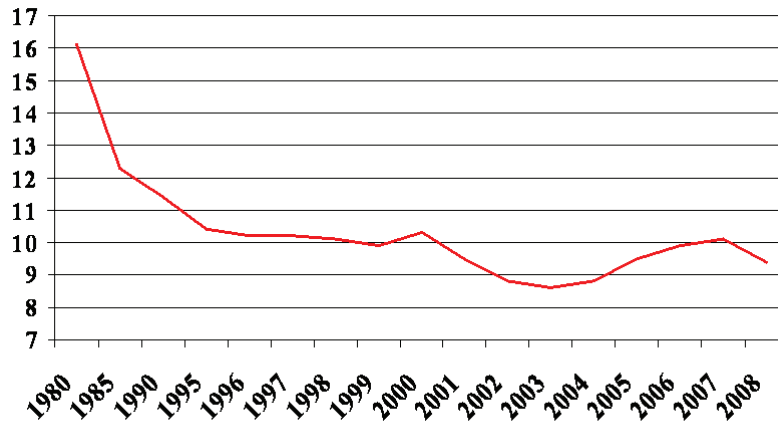
Freight rail also plays a role in livable communities. By using the long-haul efficiencies of rail, roadway congestion can be reduced, allowing commuters and shoppers to use their automobiles more efficiently. By tailoring their services to community and shipper needs, small freight railroads can preserve, and often improve, local rail service to communities that are not directly served by Class I railroads. And when freight rail service can provide businesses and factories in small communities with cost-effective transportation options, they, too, become more competitive.

To Increase the Economic Competitiveness of the United States

Safe and efficient passenger and freight transportation systems are essential to support our economy, and when properly maintained and strategically expanded, rail can be a catalyst not only for personal mobility but also for robust economic growth. Moving freight quickly and economically enables our Nation's industries and markets to meet the demands of domestic consumers and helps U.S. products to compete in the global marketplace. Given that even the most successful commercial enterprise can be stifled by inefficient transportation, easy access to U.S. ports is an important factor in facilitating more cost-effective international trade. Economic forecasts continue to indicate a burgeoning demand for freight transportation in the future; industry and the Nation must aggressively plan ahead now if we hope to maintain the competitiveness of the United States in light of the future demands of a challenging global environment.

To that end, transportation providers and shippers have worked to lower total logistics costs. Over the years, more efficient use of the transportation network and targeted investments have lowered those costs, but recently they have begun to rise. This has led shippers to demand more improvements in transportation and better intermodal connections to reduce additional costs. Figure 8 shows logistics costs as a percent of gross domestic product (GDP). These costs fell after transportation industries were deregulated in the early 1980s; however, in 2003 they began to rise, a development that lasted until the recent economic downturn. While much of this increased cost can be attributed to a booming economy that placed capacity constraints on the transportation network, rising fuel prices also played a role. The result has been that logistics costs have formed a larger part of GDP, putting a drag on economic activity, making goods more costly, and diminishing the U.S. competitive position. In 2008, logistics costs ended their 4-year rise, falling to 9.4 percent of GDP. This was likely due to significant reductions in inventory cost from the slumping economy. Transportation costs as a percent of GDP, however, have continued to increase.

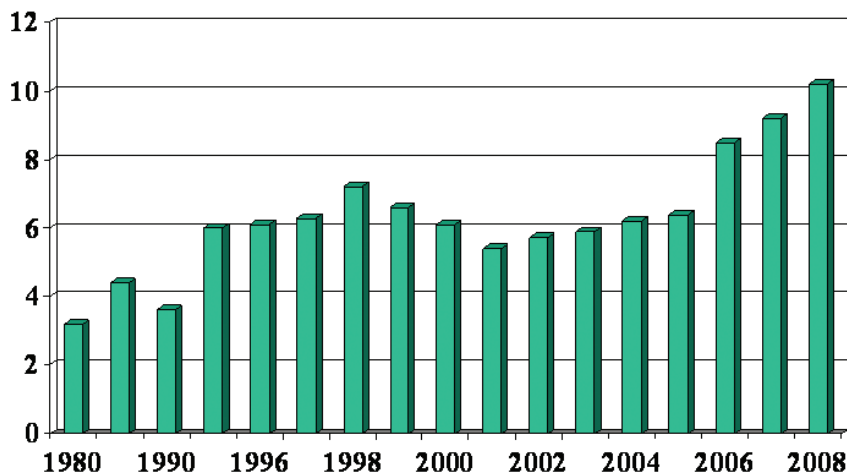
Figure 8. - Total Logistics Costs as a Percent of GDP



Source: Annual State of Logistics Report; Council of Supply Chain Management Professionals

Congestion causes delays, diminishes productivity, and adds extra costs to virtually all goods and services produced in the economy. Investments in transportation infrastructure that expand capacity and relieve congestion points will facilitate the movement of goods over the network and reduce logistics costs. The freight railroad industry invested over \$148 billion from 1980 through 2008. In recent years investment to expand capacity rose from \$6.4 billion in 2005 to \$10.2 billion in 2008. (See Figure 9.)

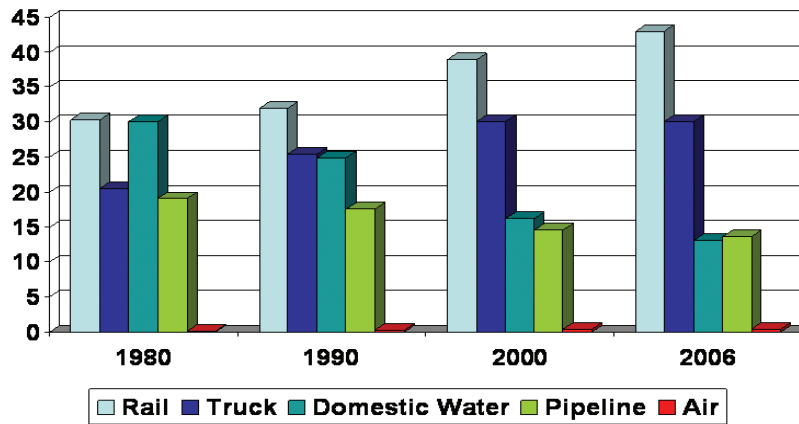
Figure 9. - Class I Railroad Capital Expenditures



Source: Association of American Railroads; "Railroad Facts," various editions for historic results

The financially healthy and viable rail system that was created after the partial deregulation in 1980 allowed the railroads to regain market share, and helped ease the increasing burden that the economic boom imposed on the highway system. From 1980 through 2006, the railroad’s mode share measured in revenue ton-miles grew from 30 percent to 43 percent. (See Figure 10.)

Figure 10. - Trends in Freight Mode Share



Source: Bureau of Transportation Statistics--2008

At the same time, rail intermodal shipments (shipping containers and truck trailers on rail flatcars) grew from 3 million trailers and containers to over 11.5 million. (See Figure 11.) Even though down from the 12.3 million trailers and containers in 2006, intermodal transportation is, nonetheless, the fastest growing segment of traffic on the rail system. (See Figure 12.)

Figure 11. - Intermodal Growth

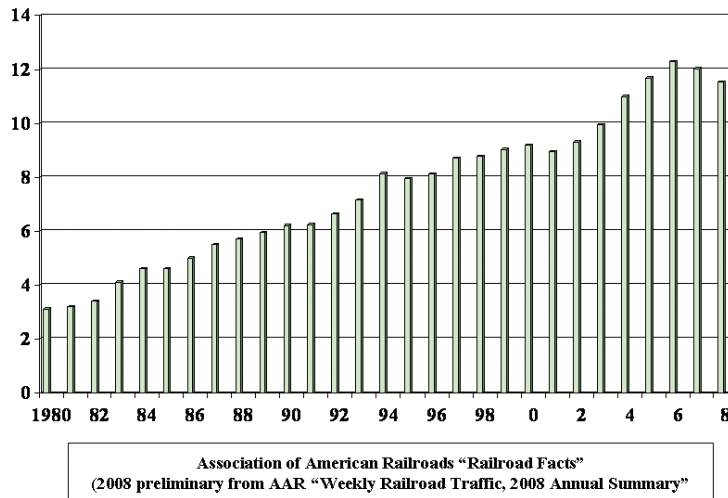
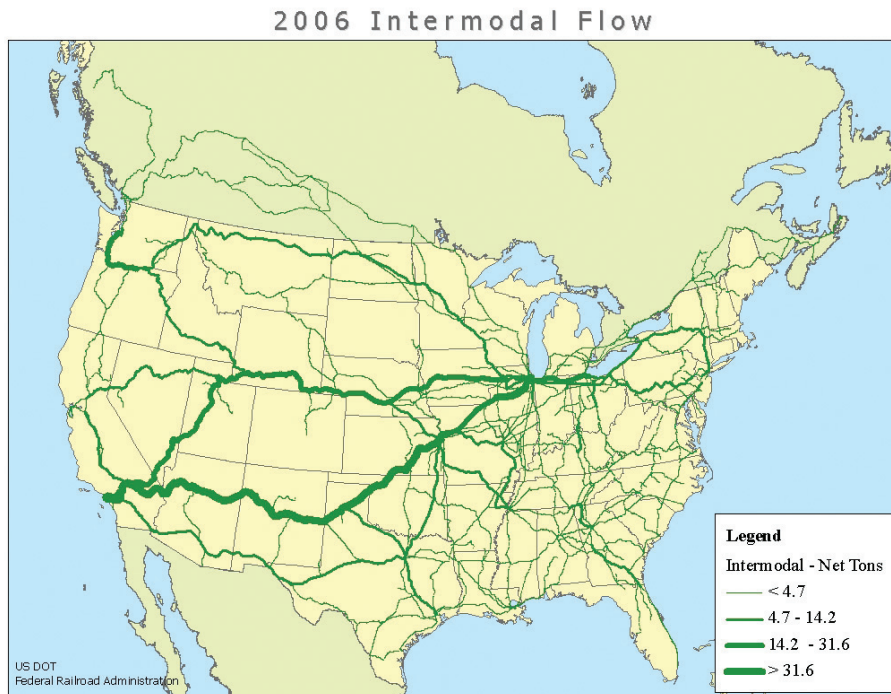


Figure 12. - 2006 Intermodal Flows



Modern rail systems require skilled employees. The rail industry has focused on workforce development, not only recruiting and retaining the needed skilled employees to add to and replace the large number of employees that will be required for an ever-increasing demand, but also ensuring that adequate educational institutions are in place to develop a constant pool of talent. This will provide for a highly technical work force at all levels that will be needed to build and operate those systems.

To Better Understand and Integrate the Unique Economics of the Rail Industry

The passage of the Staggers Act in 1980 partially deregulated railroads. Partial deregulation of the industry allowed the railroads to consolidate and gave them the flexibility to control costs and enter into contract pricing. As a consequence, the long-term decline of the U.S. freight rail industry prior to Staggers was reversed. Since the early 1980s, the total number of Class I railroads went from 26 to 7. The number of miles of road owned by these railroads has declined from nearly 165,000 miles in 1980 to nearly 94,000 miles in 2008. All told, railroad productivity has increased substantially, as more freight moves over a denser network.

Duplicative routes and branch lines that were sold by the Class I's are now being operated by smaller railroads. Class I railroads also spun off some routes that became viable Class II or "regional railroads" that offer mainline service and connections to multiple Class I's and shortlines. The Class I's also shed lightly used branch lines, allowing shortline operators to maintain rail service that might otherwise have been abandoned without the sale. This has created an important niche for the smaller railroads, which focus on local customer service.

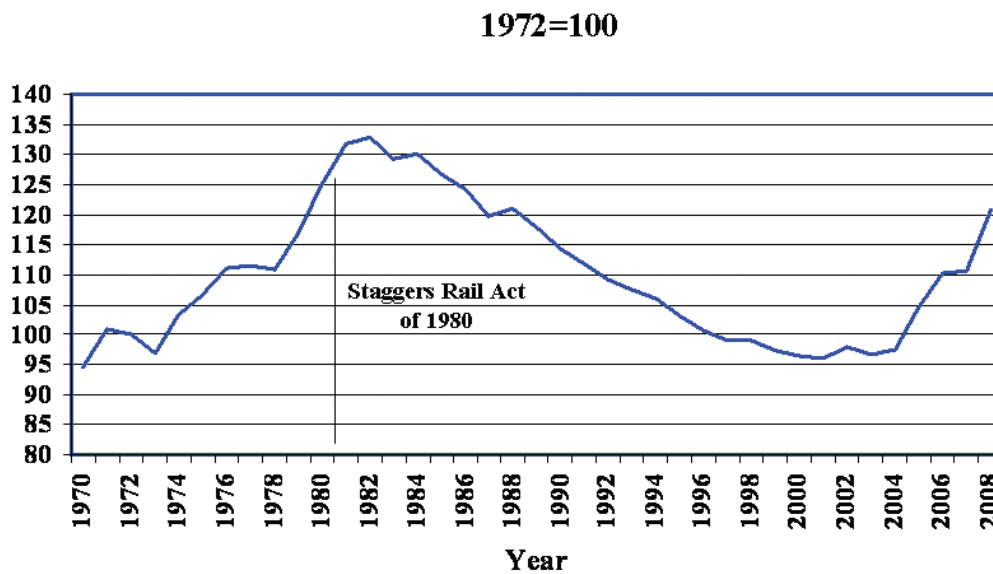
Historically, only two modes of freight transportation, rail and pipeline, are self-sustaining, meaning that they have the ability to finance, build, and maintain their infrastructure. Other modes of freight transportation rely on publicly financed infrastructure, though these modes have dedicated revenue sources that are paid, at least in part, by system users. When an investor buys stock in a non-rail transportation company, the investment is made in the vehicles, towboats, office buildings, and other capital costs. The investment does not cover the cost of the infrastructure, which is not owned and not maintained by the freight company. The economics of the U.S. rail industry are unique because private railroads own their locomotives and equipment as well as the track, yards, tunnels, and bridges of the total enterprise. Railroads, confident of the untapped capability of rail freight transportation, have been investing billions of dollars in double-tracking, signal improvements, and intermodal facilities. Railroads are in business to earn a profit and are willing to self-finance additions to their infrastructure to ensure long-term returns. A notable phenomenon is the construction of new main tracks in the same locations where main tracks were removed decades before.

It is the inherent efficiency of rail transportation that enables freight railroads to do something that is expected of no other form of transportation: maintain their infrastructure, add capacity, host passenger operations, and pay local property taxes on their real estate⁶. A review of the previous 29 years since the railroads were partially deregulated by the Staggers Act of 1980 reveals improvements in the railroad's physical plant (infrastructure) as well as their performance metrics. Safety and fuel efficiency have remarkably improved. Rail rates are lower today than in 1980, when compared in constant dollars.⁷ (See Figure 13.) Nonetheless, captive shippers -- those without a viable alternative to a single rail carrier -- often complain that they are being charged more than shippers that have competitive options.

⁶ Railroads paid over \$650 million in property taxes in 2007.

⁷ The period of declining rates ended in 2000. Through late 2007, due to increased demand and little excess capacity, freight rates began to move higher. Much of the increase in 2008 was due to the run-up in fuel prices.

Figure 13. - Rail Rates Adjusted for Inflation—1970 to 2008



Sources: U.S. Dept. of Labor, Bureau of Labor Statistics, Producer Price Index of Line-Haul Operating Railroads; U.S. Dept. of Commerce, Bureau of Economic Analysis, Implicit Price Deflator for Gross Domestic Product

The combination of steel on steel, gentle grades and curves, and advances in motive power and rolling stock has enabled railroads to offer highly efficient and productive transportation services. Greater use of rail in the national transportation system can only increase the sustainability of this system.

To Help Bolster the Domestic Passenger Rail Industry and Create Jobs

Potential new developments in high-speed rail and intercity passenger rail could bring about a resurgence in railroad engineering and manufacturing that could help to bolster the U.S. industrial base. Rail passenger equipment industries have languished domestically in recent decades. Since the creation of Amtrak in 1971, uncertain budgets and ambiguities about the future of passenger rail service have contributed to the relative low volume of equipment purchases. States have taken up some of the slack, making important purchases of passenger rolling stock that have helped to meet the needs of the national passenger system. New equipment will need to be designed and built, however, if passenger rail services are to be strengthened and expanded. Given that locomotive production, like that of passenger cars, is a segment of heavy industry that relies on many suppliers to produce the required materials and components, this new production will exert a multiplier effect. For passenger equipment, more efficiencies and economies of larger-scale production could be realized. The development of passenger car standards that ensure interoperability of equipment and permit the same equipment to be used on various routes over the course of its designed lifetime could also result in lower unit costs and increased utilization.

Importance of State Rail Plans in Developing the Long-Range National Rail Plan

PRIIA contains a legislative mandate to develop a long-range National Rail Plan, and the Act directed FRA to develop the plan consistent with approved State plans. The PRIIA also tasks States with establishing or designating a State rail transportation authority that will develop statewide rail plans to set policies for freight and passenger rail transportation within their boundaries, establish priorities and implementation strategies to enhance rail service in the public interest, and serve as the basis for Federal and State rail investments within the State. The FRA is aware of the variety of rail needs and resources within State DOTs and that those individual State authorities can range from a division of the State DOT to the assignment of such activities to a particular office. The Department expects that these State rail plans will provide detailed insight into the concerns facing State transportation systems and set forth their vision of how rail transportation can address those issues. The Department's challenge in preparing the National Rail Plan will be to examine passenger and freight corridors running through and between States, and to coordinate the States' plans into a blueprint for an efficient national system, thereby meeting both regional and national goals. Because the majority of the infrastructure is owned and maintained by the freight railroads, the Department will continue to work with States to develop plans that contain proposals or initiatives for partnering with freight carriers in the development of plans and objectives.

In addition to the requirements of PRIIA, this preliminary plan will provide the States with a framework of elements that the Department views as necessary for creating a viable national rail plan. States are welcome to raise additional issues and provide other relevant information, and are encouraged to work with all stakeholders. State rail plans should also consider all other modes of transportation, especially ways in which they can be leveraged to serve transportation customers more effectively and efficiently. It is anticipated that the National Rail Plan may encourage rail development and growth much like the model of the interstate highways system, recognizing that the traffic flow of passengers and freight rely on the connectivity of regional corridors that pass through several States.

This Preliminary Plan recognizes the comments received from stakeholders over the last several months. On September 9, 2009, FRA held a meeting to exchange information with representatives from State DOTs, other U.S. DOT modal administrations, passenger rail advocates, transit groups, and the freight rail industry. This meeting served as an important step to reach out to all stakeholders and solicit their participation in the development of the National Rail Plan; these activities will be numerous as we go forward in the development of the Plan.

Framework for a National Rail Plan

The development of a National Rail Plan will necessarily involve a discussion and resolution of certain issues common to almost every state. The following areas of discussion are not exhaustive, but are intended to raise key issues for States and transportation stakeholders to consider as they structure their State rail plans and provide input to the long-range National Rail Plan. The FRA believes an exploration

of these issues by States and stakeholders will provide valuable information to the Department. This input will help shape policies and define the future programs that will be necessary to complete a strategic, long-range national plan. In addition, by bringing together the appropriate parties, and particularly by partnering with freight railroads—the owners of the rail infrastructure—the States will be able to better assess and resolve crucial transportation issues.

On a more operational level, States can provide information on local rail bottlenecks and resultant traffic congestion, which can affect the movement of people and goods not only in that location but throughout the rest of the corridor as well, thereby negatively affecting the larger transportation network. Resolution of such issues can improve transportation flows and positively affect the movement of goods and people far beyond State borders. States can also provide information on projects that they are planning to develop, which may have repercussions beyond state borders, and hence should be considered in the National Plan.

The following are several issues that States and stakeholders should consider as they provide input to FRA in the development of the long-range National Rail Plan:

Appropriateness of Strategies of Funding Freight Transportation Investments

Our Nation’s transportation infrastructure is one of its greatest assets. Properly maintained, it can move freight quickly and efficiently, which is essential to U.S. economic growth, industrial productivity, and global competitiveness. Inadequate investments in freight corridors that fail to keep pace with increased shipper demand and expected public benefits cause congestion, delays, unreliable service, and damage the environment. These freight corridors, once built, should be self-supporting. Cost-effective, fuel efficient, and environmentally friendly, improved rail transportation is essential to achieving national freight transportation goals. Failure to keep and grow rail market share will impose a further burden on highways.

To address this issue, stakeholders need to evaluate the appropriateness of various strategies for investing in freight rail by the private sector, the public sector, or potentially both in conjunction. States can leverage Federal programs and funds by partnering with all freight transportation stakeholders, including the private sector. As States develop State transportation plans, it is expected that they will identify planning and organizational opportunities that will lead to the development of new and more creative ways to better allocate resources, which will result in a more integrated and efficient freight and passenger transportation network.

Developing ways to assign Costs and Allocate Resources Equitably across All Modes of Freight Transportation

As explained above, freight transportation services are provided almost exclusively by the private sector, and all types of freight transportation place some cost on society. These external costs can include the costs of infrastructure damage, environmental damage, accidents, congestion, and other costs.

While motor carriers operate on publicly provided highways and water carriers on publicly maintained waterways, the transportation services that the rail industry provides occur over its own rights-of-way, and through privately funded support services. Since railroads are privately owned, its customers must pay the full costs, both variable and fixed, for the transportation provided. These include the full costs of equipment operation and maintenance, as in the other modes; but unlike the other modes, rail must also maintain its own infrastructure.

The Federal Highway Administration's May 2000 *Addendum to the 1997 Federal Highway Cost Allocation Study*, indicates that heavy intercity trucks only pay 80 percent of the costs imposed on Federal highways. Many local roads are funded by real estate and sales taxes, rather than the highway users. A more recent study⁸ indicates that user fees from transportation taxes and tolls cover only about 60 percent of highway costs, when all roads, Federal, State, and local, are taken into consideration.

The pricing of one mode of transportation can directly affect demand for and costs of other modes. When private freight companies provide transportation services without being held accountable for using the infrastructure, the resultant inefficiencies can impose higher costs on society. From a societal standpoint, inefficient pricing will manifest itself in the continued misallocation of resources for transportation services.

Some States and universities have been studying the costs imposed on society by the different modes of freight transportation. In their rail plans, States can examine the opportunities that would exist if the various modes were priced properly, and calculate the expected benefits and cost savings that might result. The National Rail Plan will further examine this issue.

Opportunities and Greater Efficiencies in Multimodal Transportation

One of the greatest accomplishments in improving efficiencies in the U.S. transportation network over the past 15 years has been the gains that have resulted from using multiple modes of transportation for completing an origination/destination trip. Significant investment by the public and private sectors has gone toward improving, for example, passenger connections at airports for ground transportation, which has included rail. Travelers and commuters look to minimize trip costs, and rely on the most efficient mode to meet their needs. The ubiquitous "park-n-ride" facilities that surround major cities are a testament to intermodal passenger travel. Intercity and commuter rail provides a great benefit to intermodal passenger traffic and can be designed for total accessibility.

The private freight railroads have also undertaken and continue to make investments in facilities to develop rail intermodal services. Under a multimodal approach, the transportation mode that is the most efficient and cost effective for each leg of the trip is used for that particular segment. On the freight

⁸ *Paying Our Way: A New Framework For Transportation Finance*, Report to the National Surface Transportation Infrastructure Financing Commission, February 2009.

side, customer demands for lower logistics costs have led to a reliance on truck trailers or containers on freight trains for the long haul. At the origin, the trailer or container is driven to the rail intermodal facility or loaded onto rail at dockside. The long haul is provided by rail, keeping the shipment off congested highways, while creating a huge savings in fuel. For the final delivery of the freight—the “last mile” of the trip—a motor carrier provides the flexibility and reliability that is sought by the shipper.

While transportation customers continue to demand improvements in multimodal travel, these efficiencies are also reducing the external and social costs of transportation. To continue these gains, States should look at opportunities to exploit the inherent efficiencies of each of the modes, and identify projects that will improve multimodal connections and travel. These strategic investments can repay the taxpayers many times over.

Identifying Areas to Continue to Improve Transportation Safety

Over the years, FRA has worked closely with State rail safety inspectors and railroads to reduce both the frequency and the severity of railroad accidents. As a result, Federal and State railroad safety efforts are now in harmony. In the wake of several major train accidents, DOT and FRA jointly launched, in 2005, the National Rail Safety Action Plan, whose broad goals are to target the most frequent, highest risk causes of train accidents, to focus FRA oversight and inspection resources more precisely, and to accelerate research efforts that may mitigate the largest risks. New technologies will also enhance railroad safety, and FRA has sponsored research to bring technologies such as PTC and ECP to the point that they now are ready to be deployed. Congress has observed the value of several of FRA’s initiatives and has mandated their implementation in Rail Safety Improvement Act of 2008. Going forward, PTC, in combination with other technologies and strategies, can offer levels of passenger protection that can be incorporated into new equipment design standards.

The National Rail Plan will present DOT’s strategies for further improving rail safety based on data compiled and the analysis developed by FRA’s Office of Railroad Safety. The FRA will continue to ensure that its inspection, enforcement, and regulatory programs uphold the safety of the rail industry. And FRA will continue to develop new programs to advance railroad safety for employees, passengers, and the general public.

States should also consider areas in which the greater use of rail, for both passenger and freight, can be used to improve safety. This should be an important consideration for transportation planning.

Effectively Meet Defense and Emergency Transportation Requirements

Rail transportation is important to the national defense strategy because the military’s heavy and oversized vehicles need to move by rail to seaports for deployment. The Department of Defense (DOD) has emphasized the need for rapid deployment of large numbers of people and huge amounts of materials on short notice. Similarly, following a natural disaster, rail transportation is critical to ensuring the safe evacuation of affected populations and to assisting local, State, and Federal officials in

rebuilding devastated communities. Deployment of personnel, equipment, and supplies for defense and emergency relief operations requires a well planned and flexible rail network with the capacity to absorb additional traffic should the demand arise.

The DOD's Railroads for National Defense Program, in conjunction with FRA, has established the Strategic Rail Corridor Network (STRACNET), which allows for the mobilization and deployment of personnel, equipment, and supplies in the event of a national emergency or natural disaster. The STRACNET is owned and operated by individual rail operators, principally the Class I railroads, and it comprises 38,000 miles of rail track serving 170 defense installations. The DOT and FRA will continue to work with the DOD, other Federal agencies, individual rail operators, and the transportation community to identify short- and long-term national defense and emergency transportation requirements and to ensure that the Nation's railroad network can meet those requirements. To continue this high level of readiness, States should assess their plans and rail transportation options in the event a disaster strikes. States should also identify the need for improved access and egress in case of evacuations and the need for movement of humanitarian supplies.

Balancing the Benefits of Rail Corridor Development with Local Communities and Commuter Services

Greater use of passenger rail and freight rail holds the promise of improving our national transportation systems, reducing congestion, and diminishing petroleum use while improving the environment. These benefits enhance the livability of communities. Thus the benefits of expanded freight and passenger service to communities should be an important consideration when developing rail projects. In assessing total costs, States should consider both the community benefits and the potential community costs in developing their plans. Carefully planned economic development can also help to alleviate the recurring problem of benefits being enjoyed by one community while the costs are passed on to another, as well as "not-in-my-backyard" issues. Strategies and best-practice approaches must be developed to resolve these issues and to ensure that local concerns are addressed as regional and National needs are obtained.

Identify Opportunities to Improve Energy Use and the Environment

While rail has proven that it is more energy efficient than comparable truck moves, the most significant gains occur over longer hauls. As advances in technology result in greater rail fuel and operating efficiencies, the relative length of haul required to obtain maximum efficiencies may be reduced. State and Federal efforts can work in harmony to leverage private freight rail investments and identify high-volume freight corridors that have the potential to increase their capacity through enhanced rail service. This can reduce the burden on highways while combining the benefits of lower highway capital and maintenance costs with improved safety and environmental quality. In order to assess the benefits of these projects, states can collect data to comply with the Clean Air Act administered by the U.S. Environmental Protection Agency (EPA), as well as make use of voluntary programs developed to estimate greenhouse gas emissions, such as the EPA's Resources for Inventory Development and State Climate Change Action Plans at www.epa.gov/climatechange/emissions/state_ghginventories.html.

Stakeholders and the Development of the National Rail Plan

We are all stakeholders in the Nation's transportation system, and we all have a vested interest in the continuation and enhancement of performance and services that we have come to rely on. Each of us depends on the delivery of goods and the ability to travel unimpeded throughout the country. The providers of transportation services are constantly under pressure to provide greater value to their customers.

A long-range National Rail Plan cannot be constructed without the input of those that support and provide transportation services. These stakeholders include States, Class I railroads, Amtrak, regional and shortline railroads, rail labor, rail industry suppliers, trucking companies, logistics providers, domestic and international freight shippers, and the associations that represent these groups. Other stakeholders include the modal administrations of the DOT, the U.S. Environmental Protection Agency, and other State and Federal government entities.

Large carriers have the employees and maintenance capabilities to reliably operate a high-quality infrastructure that can simultaneously support passenger and freight operations through national corridors. But some rail projects designed to improve both rail and highway traffic flows lack sufficient return to the railroad to justify the investment. Nor could public bodies pursuing the project solely fund it. Railroads have pursued public participation in the development, financing, and construction of such projects. Such public-private partnerships offer the potential to achieve multiple goals that benefit both parties.

Smaller railroads also play a critical role in providing transportation services. These generally lower-cost railroads preserve transportation options for local shippers, and thus play an important part in the harmonization of the national transportation system by providing the link to connect shippers with the larger carriers. In many instances, these small railroads have demonstrated the flexibility and resourcefulness to improve customer service at the local level, while connecting with the Class I carriers for the efficiencies of long-haul rail service. This combination has often improved service to shippers and communities that would otherwise have been without rail service.

With the increase in rail intermodal traffic over the past few years, the trucking industry has become a significant partner with the railroads. These companies include large, national long-haul trucking firms, as well as local companies which provide drayage to and from port and rail intermodal facilities. The railroads have tailored their services to meet the demands of these customers and have continued to shorten transit times and strengthen reliability. This adds value and lowers total logistics costs. There are many aspects to these services, and because of the highway interfaces, obstacles to improving services could be local—that final mile on the highway—or regional. Stakeholders include trucking companies and trucking associations as well as ports and localities around intermodal terminals. Finally, shippers and receivers who depend on rail, and other modes, have a significant interest in the performance of the entire transportation system as many shipments are multimodal. The convergence of

each of these stakeholder concerns should be addressed in a National Rail Plan where stakeholders can identify the prospects for improved services and potential opportunities to achieve lower logistics costs.

Passenger rail service on the current freight rail network provides opportunities as well as significant challenges. Improvements in passenger rail service hold the promise of further mobilizing the Nation in an environmentally friendly way while reducing highway and airport congestion. The National Rail Plan will need to address many of these issues, a number of which are currently addressed/required in FRA's High-Speed Intercity Passenger Rail Program. Stakeholders, who include passengers and industry trade groups, will act as important resources in highlighting passenger rail issues.

Rail passenger intermodal facilities have also become important, as customers have benefited from improved connections between all forms of transportation. Significant investment on the part of the States, local governments, and the Federal Government has brought about these improvements. All stakeholders should identify additional opportunities for such connections and potential funding sources.

The role of public-private partnerships for these endeavors should also be explored. In this regard, FRA stands ready to work with all stakeholders who want to contribute to a comprehensive national rail plan that incorporates the needs of the States, the traveling public, the freight railroads and their customers, and promotes the National goal of a safe, efficient, and sustainable transportation system. Together, we can improve safety, foster livable communities, and improve the economic competitiveness of the United States.

Outreach Strategy to Develop the National Rail Plan

The FRA's National Rail Plan will involve a vigorous outreach strategy that will encompass all stakeholders and the achievement of the Administration's goals will require nationwide involvement. Therefore, it is vital to promote nationwide awareness of the lasting benefits that high-speed intercity passenger rail, commuter rail and freight rail can provide, as well as the trade-offs including, but not limited to, costs to taxpayers and users of the Nation's transportation system, impacts on local communities and businesses, and the effects on the environment. To encourage this, FRA will undertake efforts to develop and disseminate material to the interested public on the value of rail transportation in partnership with other modes.

It is essential that the National Rail Plan be developed with an extensive outreach effort to stakeholders and the public, not only by FRA, but also by States and local organizations to their communities. As FRA developed this Preliminary National Rail Plan, stakeholders participated through FRA outreach efforts and provided valuable insight that played an important role in validating some issues and bringing others to the forefront. A list of stakeholders is shown in Appendix A. Appendix B illustrates the issues raised during outreach sessions for high-speed intercity rail. The FRA is committed to a proactive outreach effort to involve stakeholders in our development process that will result in a validated and consensus-built long-range National Rail Plan.

Objectives of the National Rail Plan Outreach

The FRA recognizes the importance of discussing rail issues in an open forum and constructively listening to different points of view from stakeholders and customers. As it is a National plan, FRA will reach across the Nation throughout the rail community and transportation industry for productive feedback.

During the course of our outreach, FRA will give careful consideration to efforts that:

- Further define the Plan's goals;
- Determine role of passenger and freight rail in the Nation's transportation system, and identify appropriate role of various stakeholders including the Federal government, State governments, local governments, freight railroads, commuter railroads, Amtrak, and other parties;
- Develop strategies to achieve goals;
- Define system performance outcomes and metrics;
- Define key issues that affect success;
- Define roles and responsibilities for Federal, State, local, and private stakeholders;
- Develop an implementation plan to achieve goals, including recommendations for legislative, regulatory, or administrative changes.

Outreach Activities

The FRA will host a series of live webconferences to assist in the development of the National Rail Plan. This format will provide the opportunity for FRA to refine more detailed questions and make any necessary adjustments as we move forward. In addition, this will allow those that will not be able to travel for face-to-face meetings to have a chance to provide their comments within a forum. The projected timeframe for webconferences is from December 2009 through February 2010.

To ensure that we capture nationwide input, FRA will place a notice in the Federal Register for the opening of a docket for anyone who may wish to submit written input. The FRA will seek opportunities to discuss rail issues at targeted national rail and other transportation meetings to widen the reach and further inform the development of the national rail plan. In addition, FRA will host several regional meetings across the nation with key stakeholders. The projected timeframe for these regional meetings is March through May 2010.

Next Step

The FRA will provide stakeholders with the times of webconferences and meeting dates, locations, and other essential information to enable them to plan for participation. We will also provide support materials as we begin to more clearly focus on objectives and outcomes as well as pertinent input that we capture along the way.

APPENDIX A

Key to rail’s future success is partnerships.

FRA will be engaging in meetings and events with Federal, State, local and national organizations representing rail and transportation interests at large as well as special interest organizations and groups such as—but not limited to:

- | | |
|---|---|
| <ul style="list-style-type: none"> • American Association of State and Highway Transportation Officials (AASHTO) • American Association of Port Authorities • American Automobile Association (AAA) • American Association of Retired Persons (AARP) • American General Contractors (AGC) • American Planning Association • American Public Transportation Association (APTA) • American Shortline and Regional Rail Association (ASLRRA) • American Society of Safety Engineers (ASSE) • Amtrak • Association of American Railroads (AAR) • Brotherhood of Locomotive Engineers and City Mayors • Coalition of Northeast Governors (CONEG) • Congressional Leaders and Staff • Council of University Transportation Centers (CUTC) • Executives from State Departments of Transportations • -Environmental Groups- • Governors and Staff • Institute of Transportation Engineers • Intermodal Association of North America • National Governors Association • National Mayors Conference | <ul style="list-style-type: none"> • Metropolitan Planning Organizations Leaders • National Association of Railroad Passengers (NARP) • States for Passenger Rail Coalition (SPRC) • National Association of Counties (NACo) • National Association of County Engineers • National Association of Rail Shippers • National Industrial Transportation League • National Private Truck Council (NPTC) • National Railroad Construction and Maintenance Association (NRC) • National Safety Council • North American Rail Shippers Association (NARS) • Railway Supply Institute (RSI) • OneRail Coalition • Regional Economic Development Agencies • Rail Division IBT • Transportation for America - Coalition Partners • Transportation Trades Department, AFL-CIO • U.S. Chambers of Commerce Leaders • U.S. Department of Environmental Protection Agency (EPA) • U.S. Department of Housing and Urban Development (HUD) • U.S. Department of Justice / ADA • U.S. Department of Transportation (DOT) Modes and other Federal organizations • Urban Land Institute |
|---|---|

PRELIMINARY NATIONAL RAIL PLAN

2009

APPENDIX B: Issues Raised During High-speed Intercity Rail Outreach

	Charlotte	Orlando	Seattle	Sacramento	Houston	Chicago	Philadelphia
Collaboration and Stakeholder Agreements	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Implementation Timeline and Evaluation Criteria	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Need for Public Education / Outreach	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Liability Issues	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interconnectivity		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sustainable Federal Funding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sustainable State Funding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
National Equipment Standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Environmental Process	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
Positive Train Control	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	
<input checked="" type="radio"/> Most prominent issue discussed <input type="radio"/> Issue raised multiple times/discussed in greater detail <input type="radio"/> Issue briefly discussed							

APPENDIX C

References

Association of American Railroads. "Railroad Facts," various years.

Association of American Railroads. "Analysis of Class I Railroads," various years.

U.S. Department of Commerce, Bureau of Economic Analysis. Implicit Price Deflator for Gross Domestic Product series, various years.

U.S. Department of Energy, Oak Ridge National Laboratory. Transportation Energy Data Book, 28th edition.

U.S. Department of Labor, Bureau of Labor Statistics, Producer Price Index for Line-Haul Railroads series, various years.

U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics and U.S. Census Bureau. 2007 Commodity Flow Survey (Advance Report, released December 2008)."

U.S. Department of Transportation. "National Freight Transportation Policy Statement." (1995)

ICF International. Comparative Evaluation of Rail and Truck Fuel Efficiency on Competitive Corridors. (March 2009); Report Prepared for the Federal Railroad Administration.

Transportation Research Board of the National Academies. Special Report 297; Funding Options for Freight Transportation Projects (August 2009).

Report of the National Surface Transportation Policy and Revenue Study Commission. Transportation for Tomorrow (December 2007).

Cambridge Systematics: National Rail Freight Infrastructure Capacity and Investment Study (December 2007). Report Prepared for the Association of American Railroads.

Federal Highway Administration. 1997 Federal Highway Cost Allocation Study. (September 1997)

Federal Highway Administration. Addendum to the 1997 Federal Highway Cost Allocation Study. (May 2000)

New York State Rail Plan: Strategies for a New Age (2009).

Virginia State Rail Plan: A Multimodal Strategy to Meet the Commonwealth's Passenger and Freight Transportation Needs Through 2025 (2004).

Vision for the Future: U.S. Intercity Passenger Rail Network Through 2050. Prepared for Commissioner Frank Busalacchi, National Surface Transportation Policy and Revenue Study Commission (December 2007).

National Railroad Passenger Corporation. High-Speed Rail: A National Perspective High-Speed Rail Experience in the United States (December 2008)

Federal Railroad Administration. Vision for High-Speed Rail in America: High-Speed Rail Strategic Plan (April 2009).

U.S. Department of Transportation. "Notice of Funding Availability for Supplemental Discretionary Grants for Capital Investments in Surface Transportation Infrastructure Under the American Recovery and Reinvestment Act." Federal Register, June 2009.

Federal Railroad Administration. "High-Speed Intercity Passenger Rail Program." Federal Register, June 2009.

U.S. Congress, House of Representatives, Committee on Transportation and Infrastructure. The Surface Transportation Authorization Act of 2009: A Blueprint for Investment and Reform, (June 2009).

Council of Supply Chain Management Professionals. Annual State of Logistics Report, (June 2009).

Rail Safety Improvement Act of 2008 (Pub. L. No. 110-432, Division A), 122 Stat. 4848 (2008).

Passenger Rail Investment and Improvement Act of 2008 ((Pub. L. No. 110-432, Division B), 122 Stat. 4907 (2008).

U.S. Department of Defense. Military Surface Deployment and Distribution Command, Strategic Rail Corridor Network and Defense Connector Lines (March 2008).

North Carolina Department of Transportation. 2009 Rail Plan (Executive Summary).

Washington State Transportation Commission. Statewide Rail Capacity and System Needs Study: Final Report, December 2006.

Paying Our Way: A New Framework for Transportation Finance; Report to the National Surface Transportation Infrastructure financing Commission (February 2009).