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AMTRAK

Issues for Reauthorization

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Madam Chairwoman and Members of the Subcommittee:

We are pleased to provide this statement on issues pertaining to Amtrak's reauthorization. We recently issued a report that examined potential revenue sources, cost trends, and options for reassessing Amtrak's mission and route network.[1] As the Congress deliberates Amtrak's reauthorization, a number of issues could be considered, including Amtrak's likely revenues and expenses over the next few years, its efforts to improve efficiency, and potential changes to the scope of Amtrak's mission. Today's statement addresses Amtrak's revenue expectations and capital requirements for the Northeast Corridor, freight railroads' concerns over liability, potential cost savings through legislative changes governing labor protection, and necessary benefit/cost considerations in making changes to Amtrak's route structure. In summary,

-- Amtrak expects that its planned high-speed rail service between New York and Boston will more than double its market share for that segment and substantially increase its revenues by 2010. Amtrak also expects to maintain its current 45 percent air-rail market share between Washington, D.C. and New York. However, to realize these expectations, Amtrak will need about $5 billion in capital funding through the year 2010, including (1) $900 million by 2000 to complete the Northeast Corridor Improvement Project (NECIP); (2) $1.6 billion for capacity expansion and infrastructure rehabilitation between New York and Boston after 2000; and (3) $2.5 billion, as soon as possible, to repair the infrastructure between Washington, D.C. and New York.

-- Compensating the freight railroads for their liability exposure in accidents involving Amtrak passenger trains represents a potential cost increase for Amtrak. Conrail's $95 million out-of-court settlement for a 1987 accident at Chase, Maryland, has increased the freight railroads' concern that they are not receiving adequate compensation for their potential liability in accidents involving passenger trains. Freight railroads have said that they will raise this issue when they renegotiate their operating agreements with Amtrak. Most of these agreements expire in April 1996. It is not clear how much it will cost Amtrak to accommodate the railroads' concern. Both Amtrak and the freight railroads want the Congress to enact legislation that would reduce their potential liability. Because Congress is currently

[1]Intercity Passenger Rail: Financial and Operating Conditions Threaten Amtrak's Long-Term Viability (GAO/RCED-95-71, Feb. 6, 1995).

considering limits on damages in the broader context of tort reform, some of the freight railroad liability problems could be resolved by other legislation.

-- Amtrak is proposing changes to the Rail Passenger Service Act of 1970, as amended, to allow greater flexibility in collective bargaining as one way to reduce costs. The Rail Passenger Service Act sets minimum levels of labor protection and generally prevents Amtrak from contracting out work if doing so results in furloughs. Amtrak believes that these legal mandates limit its ability to negotiate changes with the unions. According to Amtrak's Strategic and Business Plan, Amtrak also plans to negotiate other cost-saving initiatives with labor, such as reducing train and engine crews. In total, these planned changes make up 26 percent of the $364 million in savings described in the plan. However, Amtrak has already missed its March 1, 1995, milestone for implementing those changes. These delays could adversely affect Amtrak's plans for achieving its projected cost savings.

-- Amtrak estimates that even if the revenue increases and cost reductions contained in its recent Strategic and Business Plan are 100 percent successful, Amtrak will experience a shortfall of $1.3 billion through the year 2000, assuming that annual state and federal support remains at 1995 levels. If federal operating subsidies are gradually reduced, Amtrak projects a $2.6 billion shortfall. We believe that without increased funding, consideration should be given to reexamining Amtrak's mission and its current route system. Changes to the existing route network will require an analysis of the benefits and costs, including the impact on other modes of transportation.

AMTRAK FORECASTS SIGNIFICANT REVENUE INCREASES FOR NORTHEAST CORRIDOR SERVICE, BUT $5 BILLION IN CAPITAL FUNDING IS NEEDED

Amtrak expects the Northeast Corridor to generate a substantial increase in revenue over the next 15 years as it extends high-speed operations on the "north end" of the corridor--the segment between New York and Boston. By 1999, Amtrak plans to offer high-speed, 3-hour service--about 1 hour less than the fastest existing service--and continue its conventional speed service. The Federal Railroad Administration expects that high-speed service on this segment of the corridor will lead to revenues that are 80 percent more than revenues would be without the high-speed service. Moreover, Amtrak expects to capture roughly one-half the air-rail intercity travel market between New York and Boston. These forecasts assume that Amtrak will offer

16 high-speed trips per day.[2]

Improvements to the north end will cost about $2.5 billion between now and 2010. Additionally, Amtrak estimates that it needs another $2.5 billion to make repairs between Washington, D.C. and New York that will allow it to continue existing levels of service on that segment. Table 1 provides a breakdown of Amtrak's total Northeast Corridor capital needs.

The $600 million for capacity expansion shown in Table 1 is needed to allow for not only 16 high-speed Amtrak trips per day, but also more than 700 daily commuter trains that currently use the corridor's north-end tracks for access to New York City. Additional parallel tracks or passing sidings and other improvements will be needed to provide the needed capacity.

Table 1 also shows FRA's $1 billion cost estimate to recapitalize and rehabilitate the infrastructure on the north end of the Northeast Corridor, which ranks among the oldest in the nation. Many bridges need replacing, and the tunnels under New York need safety upgrades. While these projects would be necessary regardless of whether or not high-speed rail operations are introduced, failure to address these needs would limit the amount of high-speed service that Amtrak could provide. Amtrak also anticipates that the freight and commuter railroads that share the tracks will assume a portion of the cost responsibility, but cost-sharing arrangements have not yet been negotiated for many projects.

[2]There have been concerns raised over whether Amtrak's ridership projections for the New York-Boston segment have been overly optimistic. Amtrak has contracted for a study to review and update these forecasts, which should be completed within the next month.

Table 1: Estimated Capital Needed for Amtrak's Northeast Corridor

Dollars in Millions

Element	Estimated cost
Complete electrification, other upgrades, and purchase high-speed trainsets	$900[a]
Capacity expansion	600[b]
Infrastructure recapitalization and rehabilitation between New York and Boston	1,000[c]
Infrastructure repairs between Washington and New York	2,500[d]
Total	$5,000

[a]Amtrak plans to complete these improvements by 1999.

[b]According to the Federal Railroad Administration (FRA), capacity expansion will be needed around the year 2000.

[a]According to FRA, no clear time table exists for these repairs, but the needs will have to be addressed sometime "in the coming decades."

[d]According to Amtrak, these repairs are needed as soon as possible to avoid adverse impact on existing service.

Source: Amtrak and FRA.

Finally, Amtrak estimates that it needs $2.5 billion to bring the south end--the segment of the corridor between New York and Washington--up to a state of good repair. Much of the track, signals, structures, electrification system, maintenance-of-way equipment, and tunnels have deteriorated and are in need of major repair. These repairs will allow Amtrak to continue its current level of high-speed and conventional service between Washington and New York. According to Amtrak, these repairs should have been made on a regular basis over the years but were given low priority as Amtrak focused NECIP funds on developing high-speed rail. In the 5-year period between 1990 and 1994, Amtrak used a total of $184 million of its general capital grant to address the most critical needs. In fiscal year 1995, Amtrak plans to use $115 million of its NECIP grant for repairs.

AMTRAK IS CONCERNED ABOUT POTENTIAL LIABILITY COMPENSATION TO FREIGHT RAILROADS

Amtrak is concerned over potential increases in compensation to freight railroads for the use of their track. Part of the expected increase is due to the freight railroads' concern over liability. About 97 percent of the track over which Amtrak operates is owned by the nation's freight railroads. Amtrak negotiated 25-year track-use agreements with the freight railroads that generally included payments of $0.0734 per train mile to cover the freight railroads' exposure to damages. Most of these agreements expire in April 1996.

As new operating agreements are negotiated, the freight railroads have said they will seek changes to the liability arrangements because Amtrak has asserted that, as a matter of public policy, the agreements do not apply in cases of gross negligence or willful misconduct. The current contracts are basically no-fault agreements, wherein Amtrak assumes liability for its passengers, property, and employees and the freight railroads have responsibility for their property and employees regardless of who is at fault. However, in the accident between Amtrak and a Conrail freight train at Chase, Maryland, in 1987, Amtrak asserted that the agreement did not apply because the accident was the result of gross negligence; Conrail believes otherwise. The Chase cases were settled out of court, and Conrail paid about $95 million in damages to Amtrak passengers.

Some freight railroads believe that Amtrak's poor financial conditions will lead Amtrak to repudiate liability wherever possible. The railroads believe that they will be forced to bear liability for losses to Amtrak passengers, employees, and property in cases where gross negligence is asserted. The railroads also told us that current contracts do not protect them from this exposure, and want to be compensated for this risk. Of particular concern are the vast majority of cases where claims total less than $5 million, since these fall within railroads' self-insured levels and therefore would require out-of-pocket payments by the railroads. Amtrak is currently self insured for the first $25 million in claims resulting from a single accident, and for all amounts over $200 million resulting from a single accident. Amtrak has insurance coverage to pay claims between $25 million and $200 million for a single accident.

Additionally, Amtrak and the freight railroads are concerned that they could be exposed to potentially large punitive and non-economic compensatory damages. An Amtrak accident could result in many deaths and injuries as Amtrak trains often carry several hundred passengers. Because of this concern, Amtrak and the freight railroads favor federal legislation to limit liability so that a major accident could not financially devastate Amtrak or a freight railroad. Actions that reduce the likelihood of non-economic or punitive damages being awarded could improve Amtrak's bargaining position in renegotiating its contracts with the freight railroads.

Although Amtrak and freight railroads expressed substantial concerns about potential liability, officials provided no information that allowed us to quantify the size of the problem. While maintaining the status quo is one option, Amtrak and the freight railroads believe the issue requires federal legislation, including preemption of state laws that limit Amtrak's ability to indemnify freight railroads for punitive damages and legislative caps on punitive and non-economic compensatory damages. Freight railroads also suggested that the federal government assume responsibility for damages over a specified amount. Each option has advantages and disadvantages.

Maintain Status Quo

If the Congress takes no action to address Amtrak's and the freight railroads' concerns about liability, the freight railroads and Amtrak would negotiate new contracts under the Rail Passenger Service Act. Amtrak could indemnify freight railroads for punitive damages. However, some state laws prohibit this practice, because it would defeat the purpose of punitive damages--punishing the defendants and preventing others from committing acts of gross negligence.[3] Therefore, Amtrak cannot assure indemnification in all cases, and the freight railroads may seek compensation from Amtrak to cover their increased liability insurance and potential out-of-pocket settlement costs.

The amount of these additional payments, if any, by Amtrak would be negotiated during contract negotiations and eventually would be decided by the Interstate Commerce Commission (or its successor) should Amtrak and the freight railroads be unable to reach an agreement. However, our analysis indicates that freight railroads' insurance costs may not increase significantly, because, according to insurance and railroad industry officials, the potential liability for Amtrak accidents is already considered in setting premiums. Because the railroads' insurance policies do not itemize cost by types of liability exposure, we were unable to determine the additional cost associated with this risk. Additionally, Amtrak would continue to be exposed to potential punitive damage awards, which would be paid directly by

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[3]Courts in some of these states do permit this indemnification where an employee, not the company, acted with gross negligence precisely because the company has not acted improperly. See, Norfolk & W. Ry. Co. v. Hartford Accident and Indem. Co., 420 F.Supp. 92 (N.D. Ind. 1976); In Matter of Celotex, 152 B.R. 652 (Bkrtcy. M.D. Fla. 1993); Morgan Int'l Realty v. Dade Underwriters Ins. Agency, 617 So.2d 455 (Fla. App. 3 Dist. 1993).

Amtrak unless they are within Amtrak's insurance range and in a state where punitive damages are insurable.

Federal Legislation to Preempt State Laws

One action proposed by Amtrak and the freight railroads is for the Congress to pass legislation preempting state laws that prevent Amtrak from indemnifying the freight railroads for punitive damages. A federal law ensuring indemnification would alleviate the freight railroads' desire to charge Amtrak for exposure to passenger damage claims. Under this option, Amtrak would still be exposed to potential punitive damage awards. However, if the federal legislation also preempted state laws prohibiting insurability of punitive damages in rail passenger cases, Amtrak's insurance could, within its coverage limits, reimburse Amtrak for these awards. Amtrak would continue to incur costs for punitive damage awards that are within Amtrak's self-insured level or beyond its coverage limits. Additional costs to Amtrak under this option would be claims payments for accidents caused by freight railroads' gross negligence.

Federal Legislation to Limit Damage Awards

Another Congressional action sought by Amtrak and the freight railroads is for the Congress to pass legislation that limits awards resulting from Amtrak accidents. Punitive damages could be eliminated or capped, and non-economic compensatory damages (e.g., pain and suffering) could be capped as well. Because the freight railroads believe Amtrak will adhere to the liability portion of the operating agreement if there is no possibility of punitive damage awards, this would eliminate their desire to charge Amtrak for exposure to passenger claims.

Legislative limits to awards would also limit Amtrak's exposure to potentially large jury awards and the associated increase in settlement costs. In testimony before the Congress, both Amtrak and the freight railroads have stated that this legislation is critical. The savings to Amtrak would be in limiting liability for potentially large awards. Amtrak's insurance premiums might also decrease if it were exempt from punitive damage awards. This legislation could be passed in conjunction with the option to legislate indemnification.

Federal Assumption of Liability Beyond Insurance Coverage

An alternative presented by the freight railroads is for the federal government to assume liability for damages above a specified amount. The Congress could require Amtrak and the freight railroads to carry insurance up to a specified amount and could agree to fund damages awarded above this level. This solution would remove the railroads' risk of catastrophic damages beyond the insured level, although it would not address the cost of awards in the self-insured range or increased insurance premiums resulting from claims payments. The federal government would incur increased costs to the extent that Amtrak accidents resulted in claims above the federal liability threshold.

<u>Cost Impact of Options is Difficult to Determine</u>

The vast majority of Amtrak claims fall within the large freight railroads' self-insured levels. Therefore, if Congress takes no action, the freight railroads plan to seek reimbursement for these claims from Amtrak in the operating agreements based on the actual settlement costs for these self-insured claims. The actual payments that Amtrak would have to make are not known because the new operating agreements have not yet been negotiated.

Amtrak and the freight railroads believe that federal legislation indemnifying the freight railroads is needed because they are otherwise subject to inconsistent state laws that could void certain contract terms on the basis of public policy. Even if a federal law indemnifying the freight railroads were passed, without caps on damages the freight railroads could be liable for paying damages beyond Amtrak's financial capacity under certain circumstances.

As for savings to Amtrak for damages for which it is potentially liable, punitive damages have never been paid because Amtrak cases with potential punitive damages have been settled prior to court awards, and the portion of settlement costs attributable to potential punitive damages, or non-economic compensatory damages (e.g., pain and suffering) cannot be determined. However, the Congress has already established a legislative precedent limiting passenger rail damages. Section 26102 of Title 49, United States Code, caps all Virginia Railway Express damages on certain track segments to the amount of the carrier's insurance, currently required to be at least $200 million per accident.

Congressional action on tort reform is already underway, and the proposals under consideration deal with many of the liability issues discussed above and could preclude the need for Amtrak-specific legislation. The current proposals do not, however, deal with the issue of indemnifying the freight railroads. In addition, without legislation, Amtrak will continue to be subject to claims payments for non-economic compensatory and punitive damages, and the attendant potential for very large awards. The Congress may wish to decide whether this subset of the larger issue of tort reform requires separate consideration because of the unique circumstances surrounding this issue.

AMTRAK BELIEVES COLLECTIVE BARGAINING CHANGES WOULD HELP REDUCE COSTS

Amtrak believes that the Rail Passenger Service Act restricts progress in labor negotiations and it is requesting changes. For example, when Amtrak discontinues intercity passenger service, affected employees' rights are protected by statute. This protection is implemented through collective bargaining agreements between Amtrak and the labor unions. While the act sets a floor of 4 years' compensation, Amtrak's current labor agreements provide up to 6 years' compensation. Removing these requirements from legislation would give Amtrak greater negotiating flexibility. However, a spokesperson for the Brotherhood of Locomotive Engineers pointed out that labor protection covers all railroad employees--not just those employed by Amtrak and that singling out Amtrak's employees would be inequitable.

Amtrak has developed its route realignment plans to minimize labor protection costs under the existing law. The Rail Passenger Service Act requires labor protection payments only when service is eliminated or reduced to less than three round trips per week. Therefore, Amtrak has favored route reductions over route eliminations to save on labor protection costs, although it also believes that this approach minimizes revenue losses. Amtrak expects to pay $13 million in labor protection costs in fiscal year 1995, and between $160 million and $190 million through the year 2000.

Amtrak also proposes the elimination of the Rail Passenger Service Act's provisions regarding contracting out. The act generally restricts Amtrak from contracting out any work if doing so causes layoffs. Amtrak would like to see this provision changed to allow savings in labor costs, which in 1994 composed 52 percent of Amtrak's total operating costs. However, Amtrak cautioned that implementing such a change too quickly could lead to major labor problems.

Amtrak's Strategic and Business Plan states that productivity improvements not requiring legislation can be rapidly negotiated and put in effect by March 1, 1995. Amtrak plans to achieve further savings in labor costs by negotiating to reduce train and engine crew size and consolidate a number of crafts into one "composite mechanic" position. However, as of March 13, 1995, dialog with the unions was ongoing, but no such agreements had been reached. A spokesperson for the Brotherhood of Locomotive Engineers told us that plans to reduce the size of train and engine crews could pose safety problems. He said that over the past 12 years, Amtrak's engine service employees have contributed huge savings and productivity advances and that nothing more is possible without adverse safety consequences.

DECISIONS ON ROUTE REALIGNMENT
REQUIRE ANALYSIS OF ALL IMPACTS

Reauthorization of Amtrak provides Congress with an opportunity to reassess Amtrak's mission in view of likely future levels of federal funding. A central theme of our report and testimonies on Amtrak is that no matter how successful Amtrak is in implementing its plans to increase revenues and reduce costs, continued federal support will be needed for the railroad to survive. Even if Amtrak's plans were 100 percent successful, Amtrak expects to experience a cumulative shortfall of $1.3 billion if state and federal support remain at 1995 levels. If the federal subsidies are phased out, the gap increases to $2.6 billion. Under these circumstances, we believe that it will be difficult for Amtrak to continue to provide the current level of nationwide service.

However, a smaller Amtrak would require less federal assistance. Congress must ultimately decide the scope of Amtrak's mission. In arriving at these decisions, relative economic performance will be a key consideration. Amtrak has already reviewed and ranked its routes based on their economic performance. If, however, Amtrak or a temporary commission is charged with reassessing the overall route network, the Congress might wish to consider social and environmental factors, in addition to economic performance, in deciding any changes to the basic route network. These factors result from the increased demand for other transportation modes that would occur if Amtrak riders had to seek alternatives. The increased demand could increase congestion and energy consumption, accelerate capacity expansion plans for other modes, and degrade certain components of air quality. While precise measurement of some impacts is difficult, rough approximations are possible to obtain a sense of their magnitude and make comparisons among routes. While we are not advocating retaining or eliminating any specific segments of Amtrak's route system, we obtained and analyzed data for one route to demonstrate the type of analysis that could be performed. Appendix I provides the results of our sample analysis.

CONCLUSION

A central theme of our report and our testimonies on Amtrak is that the corporation is at a crossroads. As the Congress considers Amtrak's reauthorization, it has the opportunity to improve the balance between Amtrak's funding and its mission. High-speed rail service in the Northeast Corridor could provide significant revenue increases, but will require substantial capital from the federal government. Legislative changes could provide Amtrak with more cost-cutting flexibility. However, the labor protection laws apply to Amtrak apply as well as other railroads. Amtrak is also covered by tort law that applies to the population at large. Therefore, changes to labor protection and tort laws as they apply to Amtrak need to be considered within this larger context.

While Amtrak's efforts to increase revenues and reduce costs could reduce the need for federal assistance, continued support will be necessary if Amtrak is to continue to operate an extensive national network of intercity passenger trains. If the Congress decides to downsize Amtrak, a detailed, route-by-route analysis of the impacts of service terminations on other transportation modes, fuel consumption, and the environment would be helpful in making final termination decisions.

APPENDIX I

Sample Route Analysis of Non-Economic Impact of Providing Amtrak Service

Providing Amtrak service has varying economic and non-economic impacts, depending on the route involved, and the impacts in some markets can be quite significant. For example, Amtrak service on the Northeast Corridor contributes to reducing air pollution and automobile traffic congestion. Additionally, several commuter railroads operate more than 1,000 daily commuter trains over Northeast Corridor tracks. These commuter railroads, particularly those operating south of New York, currently benefit from the maintenance-of-way, dispatching, and other services that Amtrak provides on the corridor. If these agencies had to provide their own services, their costs would probably increase. For other routes in the Amtrak network, the impact may be less pronounced.

To demonstrate the types of factors that might be reviewed in a route analysis, we analyzed the potential impact that Amtrak service has on the Los Angeles-San Diego Corridor. We obtained recent data on rail service levels, potential traffic diversion to air, automobile, and intercity bus if Amtrak service were unavailable; current traffic volumes and capacity of major highways; airline load factors; fuel consumption; emissions levels; and the average automobile occupancy.

Table I.1 shows the results of our analysis of how Amtrak service on a particular route impacts on the numbers of automobiles, intercity buses, and air travelers and the attendant impact on fuel consumption and air quality.

Table I.1: Impact of Amtrak Service Between Los Angeles and San Diego

Factor	Impact
Congestion	
Automobiles	+ 2,241 per day
Air	+ 49 flights per day
Intercity Bus	+ 49 per day
Fuel consumption	
Gasoline and diesel fuel consumption[a]	+ 1.1 million gal/yr
Aviation fuel consumption	+ 1.1 million gal/yr
Air quality	
Carbon Monoxide (CO)	+ 1,171 ton/yr (+.026%)[b]
Nitrous Oxide (NOx)	- 251 tons/yr (-.036%)[b]
Hydrocarbons (HC)	+ 160 tons/yr (+.016%)[b]
Sulfur Dioxide (SOx)	- 51 tons/yr (-.054%)[b]

[a]These figures are the net of increases in fuel for automobiles and intercity buses and the decrease in Amtrak's fuel consumption if the service were not provided.

[b]Based on combined existing pollution levels in the Los Angeles - South Coast Air Basin and San Diego County air basins.

Source: GAO analysis of data from the U.S. Department of Transportation, Environmental Protection Agency, California Department of Transportation, and Amtrak.

Impact on Congestion

As shown in table I.1, Amtrak service reduces highway traffic by 2,241 automobiles per day.[4] Based on the average number of trains per day, each train eliminates 129 automobiles that would have otherwise entered the highway at or around the

[4]Our analysis of Amtrak's surveys of passengers shows that if Amtrak were not available in this corridor, 64.1 percent of the passengers would travel by automobile, 20 percent by intercity bus, and 10 percent by air; 5.9 percent would not choose to travel. We assumed an average vehicle occupancy of 1.394.

time its occupants would have boarded a train.[5] A California Department of Transportation official told us that, between these cities, most of Interstate-5 is fairly congested in both directions for many hours of each day. In particular, the worst congestion occurs primarily from 6 a.m. to 9 a.m. and from 3 p.m. to 7 p.m., when the highway operates at or close to capacity--18,400 vehicles per hour. The official believed that adding more vehicles during these peak congestion periods would increase the length of each peak-congestion period. As a result, average speeds would be further reduced.

While the projected increase in the number of cars is small relative to existing volumes, the marginal impact will be disproportionately larger because as more vehicles are added to a road at or very near its design capacity, mean travel speeds decline quickly. The cost of delay is computed as the total added trip time for all vehicle occupants times the average value of the time lost.

Amtrak service in the Los Angeles-San Diego corridor also reduces the demand for air service by 487 airline passengers and 49 additional flights per day, assuming that airlines elect to maintain the 38 percent load factor on existing flights. If airlines elect to increase load factors by putting more passengers on existing aircraft or using larger aircraft (existing equipment is mainly 19- or 29-seat commuter aircraft), fewer added flights would be necessary.

We estimate that Amtrak service also reduces demand for bus service by 980 passengers per day. Assuming again that the load factor on intercity buses remains at 20 passengers per bus,[6] 49 additional buses would be required--about 1 bus every 30 minutes in each direction over a 12 hour time span. These extra vehicles would not have a major impact on highway traffic. As with aircraft, more passengers per bus would reduce the number of additional buses needed.

Impact on Air Quality

[5]Amtrak does not operate an equal number of trains each day. The total weekly trains averaged over 7 days yields 17.4 trains per day. We used 17.4 trains per day for our analysis. Total automobiles divided by 17.4 yields 128.7 automobiles generated per train. For a more detailed analysis, the ridership for each train would produce more precise estimates of congestion impacts.

[6]We assumed that an intercity buses can carry approximately 40 passengers and operate at 50 percent capacity, based on historical data.

We assessed the net impact on air quality--reduced emissions from discontinuing diesel-powered trains and increased emissions from added automobiles, intercity buses, and aircraft. As table I.1 shows, the impact on air quality is quite small. While different pollutants can lead to different health/environmental consequences, they can also differ as to their geographic incidence. For example, emissions from electricity production are typically generated from only a few point sources, but emissions from gasoline, aviation, and diesel fuel are typically generated from mobile point sources.

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