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Amtrak: Overview and Options

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David Randall Peterman
Transportation Analyst
Resources, Science, and Industry Division

Amtrak: Overview and Options

Summary

Amtrak was created in 1970, and began operation in 1971, to relieve railroad companies of their money-losing passenger operations while maintaining passenger rail service in the United States. Under Amtrak, passenger rail service has continued a money-losing record that began in the 1930s. Passenger rail service in other countries has a similar record.

A great deal of criticism is directed at Amtrak for its inability to make a profit. The implication is that profitability is the standard condition for passenger rail systems. Yet as consideration of Amtrak's predecessors and foreign counterparts shows, unprofitability is actually the norm for intercity passenger rail service. As specified in the Amtrak Reform and Accountability Act of 1997 (P.L. 105-134), Amtrak faces a congressional mandate to be able to cover all its operating expenses out of its own revenues by FY2003. Amtrak says it will be able to meet this requirement, although it has had some setbacks in its plans. But the central policy question about Amtrak remains: given that a national system of passenger rail service appears to be inherently unprofitable, as is the case for other public services, do we as a Nation wish to preserve our system or to liquidate it?

Intercity passenger rail service is unique among U.S. transportation modes in that its infrastructure (e.g., tracks) is privately owned, in contrast, for example, to public roads and airports. Thus, capital improvements are the responsibility of private entities. Amtrak has said it will release a capital improvements plan in January 2001. The Department of Transportation Inspector General has estimated that Amtrak's capital needs, simply to maintain the status quo, are between \$500 million and \$1 billion each year for the foreseeable future. Any expansion or improvement in Amtrak's services, such as implementation of high-speed rail in other parts of the United States outside the Northeast Corridor, would be in addition to this sum.

If intercity passenger rail is to be preserved, there are several possible options. Among these: passenger service could be privatized, as in some other countries, although a privatization effort in the United States would face issues not encountered in other countries, and even the privatized operations in other countries still receive government support. Competition could be encouraged, though Amtrak's statutory monopoly on passenger service was eliminated in 1997 and no competitor has yet emerged. Non-safety regulations could be reduced, although several such regulations were eliminated in 1997; it may take time for the impact of such changes to be seen. Amtrak could be encouraged to shed unprofitable routes, though almost all of its routes are unprofitable, shedding routes has little impact on fixed costs, and Amtrak is mandated to maintain a nationwide system. Funding for passenger rail service could be increased, to enable Amtrak or other potential providers to increase the level of service that is available, which might boost ridership and revenues. This could be accomplished through creating a dedicated trust fund for passenger rail, similar to those for highway, aviation, and transit; by giving states the flexibility to use some of their federal transportation funds for passenger rail; and by allowing Amtrak to issue tax-exempt bonds.

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Amtrak: Overview and Options

The Amtrak Reform and Accountability Act of 1997 (ARAA) (P.L. 105-134, December 2, 1997) requires that Amtrak be able to operate without using federal grant funds to cover operating expenses by the end of FY2002.¹ Otherwise, ARAA provides that Congress will consider an Amtrak reform plan to be drawn up by the Amtrak Reform Council (another creation of the ARAA), or an Amtrak liquidation plan to be drawn up by Amtrak. Both the General Accounting Office (GAO) and the Inspector General of the Department of Transportation have noted that Amtrak does not appear likely to achieve that 2002 goal.²

Starting with the evidence that no large national intercity passenger rail system has proven profitable, this report poses the question of whether such a system is in the national interest. It examines the level of service provided by Amtrak, in contrast to that provided by Amtrak's predecessors and overseas colleagues. Finally, it reviews a number of ideas that have been proposed for dealing with America's intercity passenger rail system. The Appendix addresses some of Amtrak's accounting practices that have been topics of discussion concerning Amtrak's achievement of the threshold of covering its operating expenses from its own revenues.

Amtrak, officially the National Passenger Railroad Corporation, is a federally-chartered for-profit public corporation. Virtually all of its stock is held by the U.S. Department of Transportation (DOT). Amtrak carries around 21 million passengers over 23,000 miles of track each year, producing 5 billion passenger miles. This represents 1% of U.S. intercity passenger-miles traveled on common carriers—trains, buses, commuter trains and intercity trains (that is, excluding private automobile travel)—and 0.3% of total U.S. intercity passenger-miles of travel each year (including private automobiles).³ Amtrak earns around \$1 billion annually in revenue from passenger fares. Amtrak has run a deficit every year since its creation, and has

¹For more information on the ARAA, see Stephen J. Thompson, *Amtrak Reform and Accountability Act of 1997 and related developments*, CRS Report 97-1023 E, updated January 28, 1999.

²U.S. GAO, *Amtrak's Costs and Capital Needs*, GAO/RCED-00-138, p. 38; U.S. Department of Transportation, Office of Inspector General, *2000 Assessment of Amtrak's Financial Performance and Requirements*, September 9, 2000 (Report No. CR-2000-121), p. iv.

³"Domestic Intercity Passenger-Miles by Mode," Eno Foundation, *Transportation in America 1999*, 17th edition, p. 47.

received over \$33 billion⁴ (in constant 1999 dollars) in assistance from the federal government to cover its deficits during that period.

Amtrak was created by the federal government in 1971 to take over intercity passenger rail services that were previously operated by the major railroad companies around the nation.⁵ Rail passenger ridership had been declining since the 1920s, due to federal and state regulation of railroad operations and competition from private automobile travel on highways and airplane travel, both of which, unlike the railroads at the time, received assistance from the federal government. In the 1960s the railroad companies were reporting combined losses of billions of dollars on their passenger service.⁶ Several were facing bankruptcy due to declining profitability of their freight operations, and most wished to be free of their money-losing passenger operations. In order to preserve a national system of passenger rail service, while freeing the railroad companies of their loss-making passenger service, Congress created Amtrak.

The creation of Amtrak was an immediate response to preserve passenger rail service in the United States. The legislation creating Amtrak did not address the underlying reasons for the long-term decline of ridership. Amtrak was a new company, but it was made up of old parts: its equipment was transferred from the railroads, and was old and in poor repair; its employees were also transferred from the railroads. Amtrak represented a continuation of the status quo, except that now the federal government, not the railroad companies, would be responsible for the financial losses.

In 1994, Amtrak announced a goal of covering its operating costs without federal grant support by FY2002. In tracking Amtrak's progress toward that goal, the General Accounting Office (GAO) has reported that during FY1995-FY1999, Amtrak had difficulty controlling its costs and meeting its revenue goals, and that its operating costs are likely to continue to grow.⁷

⁴All dollar figures in this report are 1999 constant dollars, unless otherwise indicated (by 'nominal' dollars). Historical dollar figures were inflated to equal 1999 dollars using the ratios in the 'GDP Deflator' column from Table 10.1—Gross Domestic Product and Deflators Used in the Historical Tables: 1940-2005, published in the 'Historical Tables' section of the *FY2001 Budget of the United States Government* (<http://w3.access.gpo.gov/usbudget/fy2001/maindown.html>).

⁵Amtrak was created by the Rail Passenger Service Act of 1970, P.L. 91-518; it began operation on May 1, 1971.

⁶George W. Hilton, *Amtrak*, American Enterprise Institute, Washington, DC, 1980, Table 1, p. 3-4 (updated to constant 1999 dollars).

⁷U.S. General Accounting Office (US GAO), *Amtrak's Costs and Capital Needs*, May 2000, GAO/RCED-00-138, p. 11.

The Economic Performance of Intercity Passenger Rail Systems

The focus of criticism of Amtrak is its continuing financial losses and the subsidy this requires from the federal government. But this obscures the central question: are Amtrak's continuing financial losses due to its own failings, or is the expectation that Amtrak could be profitable an impossible goal? We can compare Amtrak's performance with American private enterprise that operated passenger rail service before Amtrak, and with passenger rail service in other countries.

As noted above, prior to Amtrak's creation, the private sector rail companies were losing billions of dollars a year operating a national intercity passenger rail system. Amtrak exists because the private sector was not able to operate this service at a profit.

There is a widespread belief that intercity passenger rail service is thriving in other countries, which leads to the assumption that there is something fundamentally wrong with Amtrak that keeps it from being equally successful. That is a misperception. Passenger rail ridership has declined in every industrialized country during this century. Passenger service is widely available in European countries and Japan because the governments in those countries have supported passenger rail service at a level far beyond that provided by government in the United States; in those countries, passenger rail service is perceived to be in the public interest.

Moreover, conditions in those countries are, in many ways, more favorable to passenger rail transportation than in the United States. Their population densities are higher (which makes train travel more efficient), their fuel prices, including taxes, are higher (which makes driving more expensive relative to other travel options), and their land area is relatively smaller (which makes travel time by train more competitive with air travel).

Perhaps the most dramatic example of the impact of automobiles and airplanes on train travel is found in Japan. In one sense, Japan is an example of the possibilities of rail as a transportation mode. It is the only nation with a modern transportation system in which intercity rail represents more than ten percent of all passenger-miles traveled each year.

Yet in another sense, Japan is an example of the limits to the appeal of intercity rail travel. Japan is uniquely well-suited, geographically, to rail travel: its land area is relatively small (about the size of California) and long and narrow, and over eighty percent of its terrain is mountainous; its population is relatively large (four times that of California), its cities are very densely populated, and they are located virtually in a line along the southeastern coastal plain. In addition, its government has supported rail travel vigorously: it has invested around one hundred billion dollars over the past 40 years to build a high-speed rail network throughout the country. Additionally, the Japanese government subsidizes non-high-speed rail services. Also, airline fares were regulated until 1996, fuel prices are considerably higher than in the United

States—about \$3.60 a gallon⁸—and all of Japan’s expressways are toll roads.⁹ Yet, in spite of these features that would tend to promote rail travel against other modes of travel, intercity passenger rail’s share of all passenger-miles has declined from around 32 percent in 1970 to around 18 percent in 1995 (though it still represents 34 percent of common carrier travel).¹⁰

The same trend has appeared in every other country in which citizens have a choice between trains, cars, and airplanes: while early in this century the majority of travel was on trains, there has been a steady shift in passenger traffic away from trains to cars and then to airplanes. Most dramatically, this same trend has been seen, compressed into a single decade, in the countries of Eastern Europe since 1990. As their economies have shifted from government control to more of a market basis, government support for rail has declined, many people have purchased cars, and the share of passenger traffic traveling by train has declined precipitously.

It is hard to make a case that Amtrak’s continuing financial losses or low market share constitute a unique failure when there is no example of a major nation where national rail passenger service is a profitable operation. Rather, policymakers are confronted with a different set of questions: does the United States want a national system of intercity passenger rail service? If so, at what level of service? And is Amtrak’s current structure the best way to provide it?

A National System of Intercity Passenger Rail Service

The legislation creating Amtrak declared that “intercity rail passenger service is an essential component of a national intermodal passenger transportation system.” This was repeated in the findings of the Amtrak Reform Act of 1997.¹¹ In polls, Americans have indicated their desire to have intercity passenger trains supported by the federal government: a 1997 poll by the Gallup Organization found that 69 percent of Americans favored this (even among those who said they would not be affected by an Amtrak shutdown, 62 percent favored continued government support for it).¹² Several states across the country are appropriating funds to make improvements in passenger rail infrastructure, even in the absence of federal matching funds. States

⁸http://www.energy.ca.gov/fuels/gasoline/world_gasoline_prices.html

⁹ SRI Consulting, “Electronic Toll Collection,” 1996, <http://www.itscanada.ca/html/private/4reps2e.html>.

¹⁰Statistics Bureau, Management and Coordination Agency, Government of Japan, *Japan Statistical Yearbook 1998*, Table 10-4: Traffic Volume by Type of Transport (FY1970-95), p. 374.

¹¹Public Law 105-134 (December 2, 1997), Section 2 (1).

¹² <http://www.gallup.com/poll/releases/pr971113.asp>

invested \$1.7 billion of state and local funds in high-speed rail projects during the 1990s, and forecast spending another \$1.3 billion between 2000 and 2004.¹³

Advantages Offered by Intercity Train Travel

- Trains are among the safest modes of transportation: the Japanese grade-separated high-speed rail system carries 275 million passengers a year, has been operating since 1964, and has never had a fatal accident; nor has France's grade-separated high-speed system.
- Trains can run when weather causes delays for air and road travel.
- Trains can serve people who don't have access to cars or can't drive, and people who are afraid to fly or don't live near airports.
- Trains are very energy-efficient.¹⁴
- Train stations can be catalysts for economic development.

Shortcomings of Intercity Train Travel

- Trains carry such a small proportion of total passenger trips in the United States that even significant increases in ridership would probably have only a small impact on reducing road and airline congestion and on reducing levels of air pollution in cities.
- For conserving energy, there are other, cheaper alternatives, among them providing more support to intercity bus travel.¹⁵
- Intercity bus travel is also a cheaper alternative for providing service to people who don't have access to cars or can't drive, and those who are afraid to fly. It is also more flexible than rail, having no fixed routes.

Trains were superseded as a passenger choice in part because of their comparatively slow speeds; their competitive advantage in other countries has largely come through the implementation of high speed train systems. Lacking a high-speed network, Amtrak is like an airline with a fleet of propeller-driven planes—not very competitive.

Levels of Service

In 1920, there were 20,000 intercity passenger trains a day. By 1970, the last year of private passenger rail service in the United States, there were 450 daily trains operating over 49,500 miles of track. When Amtrak began operation in May of 1971,

¹³U.S. Congress. House. Committee on Appropriations. "Federal Railroad Administration," *Department of Transportation and Related Agencies Appropriations Bill for 2001, Part 5*. Hearing March 15, 2000, 106th Congress, 2nd Session. Washington, U.S. Government Printing Office, 2000. Pp. 391-393.

¹⁴ Center for Transportation Analysis, Oak Ridge National Laboratory, *Transportation Energy Data Book*, 19th ed., Tables 12-1 (Airlines) and 12-10 (Amtrak). Figures for 1997.

¹⁵Stephen J. Thompson, *Amtrak and Energy Conservation*, CRS Report 96-22 E, January 19, 1999.

it was given a route structure of about 200 daily trains over 23,000 miles of track. At that level of service, Amtrak produced about 3 billion passenger-miles in its first full year of operation. In 1999, Amtrak produced 5 billion passenger-miles with about the same length of track and number of trains: a 66 percent increase in passenger-miles with virtually no increase in route miles.

A frequent criticism of Amtrak is that it represents only a tiny portion of America's annual travel activity, and that this proportion has scarcely grown in the past decade. But the amount of travel Amtrak provides is not only a function of its popularity but also of its capacity to handle travelers. Its capacity to handle travelers is partly a function of the number of passenger cars it has; due in part to lack of money, this capacity has scarcely changed until the past couple of years. Amtrak's number of passenger cars rose only 27 percent between 1972 and 1999; the number of commercial passenger aircraft increased by 78 percent during that time.¹⁶

Amtrak is required to operate a national system of intercity service. Yet as of 1995, three of the continental 48 states had no Amtrak service (Oklahoma, South Dakota, and Maine), and of the 100 largest metropolitan areas in the continental United States, 23 had no Amtrak service and another 19 had less than daily service.¹⁷

Operating at a deficit, Amtrak's ability to expand its services is largely dependent on Congress' willingness to support such an expansion. Congress has provide financial support to Amtrak each year, but not at a consistent level, and overall has provided just enough support to keep Amtrak operating at the level of service it has offered for the past thirty years.

Costs of Service

In the final years of the 1960s, when private railroad companies were reducing their passenger rail service, they were running around 500 passenger trains a day over 50,000 miles of track, at a loss of around \$1.6 billion a year (\$450 million in nominal 1970 dollars). When Amtrak began its operations in 1971, running 200 trains a day over 23,000 miles of track, Congress provided \$140 million (\$40 million in nominal 1970 dollars) in support for its first year.

Since 1971, Congress has provided around \$35 billion (in constant 1999 dollars) in assistance to Amtrak, an average of around \$1.2 billion a year. But as the Amtrak Reform Council¹⁸ noted in its first annual report, the year-to-year levels have been

¹⁶Number of Amtrak passenger cars: 1,569 (1972), 1,992 (1999); number of commercial aircraft: 2,437 (1970), 4,347 (1999). Amtrak, *Annual Report*, various years; Air: Air Transport Association, *Annual Report*, various years.

¹⁷Wendell Cox and Jean Love, *Amtrak's Negligible Impact on Congestion*, a report produced for the Highway Users Federation, September 1995, available at <http://www.publicpurpose.com/hu-amtrk.htm>.

¹⁸An organization created by the ARAA. The Council consists of 11 members, variously
(continued...)

very erratic, and Congress has exercised some influence over how and where Amtrak spent this money, making it difficult, according to many specialists, for Amtrak to use these funds effectively.¹⁹ And in the opinion of some, Congress has not provided Amtrak enough money to achieve the goals which Congress has given it: provide national service and operate at a profit.

For example, while the average level of funding (\$1.2 billion) seems comparable to the amount of loss the private railroad companies were experiencing prior to Amtrak, this is misleading due to the condition of the equipment Amtrak received from the railroads. In the latter years of privately provided passenger rail service, the railroads cut costs by deferring purchase of new equipment and reducing maintenance of existing equipment. As a result, the average age of the locomotives and passenger cars the railroads transferred to Amtrak in 1971 was 22 years.

Amtrak has spent billions, when it could, to repair this equipment and to replace it with modern equipment; in the early 1980s, the average age of its passenger cars dropped to 13 years. But faced with low levels of capital support from Congress in the 1980s and early 1990s, and the expense of upgrading its Northeast Corridor in the 1990s, Amtrak had to borrow funds from private lenders to purchase needed equipment. By FY1999 the average age of Amtrak's passenger cars had returned to 22 years, though the average age of its locomotives was only 13 years.²⁰

In summary, from its beginning, Amtrak has been running hard just to stay in place. Amtrak inherited an aging, undermaintained fleet of equipment from the private railroad companies, and a significant amount of its spending in its early years was used to make up for the expenditures that the railroad companies had postponed making. Since then Amtrak has often borrowed money to make needed capital investments. As a result of this borrowing, Amtrak is having to use some of the capital investment funds provided by Congress each year to repay the debt for previous capital investments, as well as covering operating revenue shortfalls and other legally-mandated expenses.²¹ This creates an ongoing problem, as Amtrak is in effect using current capital support to pay for past capital investments, a situation which makes it difficult for Amtrak to deal with its current and future capital investment needs.

¹⁸(...continued)

appointed by the President and the House and Senate. It "shall evaluate Amtrak's performance; and make recommendations to Amtrak for achieving further cost containment and productivity improvements, and financial reforms." P.L. 105-134, Section 203(g).

¹⁹Amtrak Reform Council, *First Annual Report*, January 24, 2000, iii.

²⁰Amtrak, *Annual Report*, various years.

²¹'Excess' Railroad Retirement Fund contributions and environmental mitigation. See Stephen J. Thompson, *Amtrak and Federal Financial Assistance: Background and Selected Public Policy Issues*, CRS Report 95-1199 E, updated September 9, 1998.

Just to maintain its current level of service, Amtrak will need between \$500 million and \$1 billion in capital assistance annually for the foreseeable future.²² In addition, Amtrak estimates that \$12 billion in capital investment will be needed over the next 25 years to improve the infrastructure of just the southern part of the Northeast Corridor (from New York City to Washington DC).²³

By contrast, Western European governments provided \$101 billion (in nominal dollars) in assistance to their railways from 1980-1989.²⁴ Europe is, in land area, only slightly larger than the United States, though its population is almost twice that of the United States. France alone has a passenger railroad network that is almost as extensive as that of Amtrak (21,000 miles compared to 24,000 miles), and has 770 miles of dedicated high-speed track; the United States has zero miles of dedicated high-speed track. European Union countries as a group had 1,700 miles of high-speed track in 1999, with another 1,000 miles under construction.²⁵ France alone expected to spend \$1.5 billion on its railway network in 2000.²⁶

Government Assistance

As mentioned earlier, a frequent criticism made of Amtrak is that it has never turned a profit, and therefore requires ongoing financial support from the federal government. Amtrak proponents contend that no form of transportation in the United States pays its own way; every transportation mode is supported by government, and rail, proponents say, gets the least support. Moreover, federal assistance for highways, transit and aviation are designed to leverage state and local government spending by providing matching funds, while no such provision exists for Amtrak's funding. Since Amtrak is competing with highway and air travel for customers, in their view these unequal provisions make it more difficult for Amtrak to succeed.

Others contend that at the federal level, government spending on highways and aviation comes from taxes that have essentially been converted into user charges: federal fuel taxes go into the Highway Trust Fund and are spent to build and maintain highways; and airline ticket taxes go into the Airport and Airway Trust Fund to pay for aviation improvements. Thus their funding is a function of their level of use.

²²U.S. Congress. House. Subcommittee of the Committee on Appropriations. *Department of Transportation and Related Agencies Appropriations 2001*. 106th Congress, 2nd Session, March 15, 2000. Estimates of both the DOT IG and GAO. p. 103.

²³GAO/T-RCED-00-116,

²⁴Report from the International Railway Association, presented in U.S. Congress. House. Subcommittee on Railroads of the Committee on Transportation and Infrastructure, *Amtrak's Current Situation*, 104th Congress, 1st Session, February 13, 1995, p. 218-222 (104-10)

²⁵(2.1) "Railways: High speed rail networks," *Transport in Figures*, updated January 2000, European Commission Energy and Transport Directorate, http://europa.eu.int/en/comm/dg07/tif/2_infrastructure/ch2_high_speed_rail.htm.

²⁶"Investment in France: RFF brings fresh thinking on infrastructure investment," *Railway Gazette International*, June 2000.

Amtrak proponents reply that dedicating the revenues from fuel taxes and airline ticket taxes to highway and aviation spending is simply a policy choice that has been made by Congress in the past; other nations choose to treat some or all of their fuel tax revenues as general government revenues.²⁷ They point out that most other taxes are used for general government purposes, that large sums were spent by the federal government on highways and aviation in the past that were paid out of general government revenues, and that, unlike highway users and aviation companies, the fuel taxes paid by Amtrak and the freight railroad companies do not go into a fund for supporting rail construction or operations. Finally, they contend that what the American people want in exchange for their taxes is better transportation service, which does not necessarily mean only more highways or airports.

Also, as Table 1 shows, the federal government provided more assistance to every transportation mode than it received in revenues from that mode during the period FY1985-FY1995. The largest deficit was for air travel, where the federal government spent \$30 billion more than it received. Of the modes, the smallest deficit was for rail, even though the federal government recorded no direct receipts from rail.

Table 1: Summary of Federal Transportation Finances by Mode, FY1985-FY1995 (in billions of 1992 dollars)

Mode	Expenditures	% of Total Expenditures	Receipts	Receipts - Expenditures
Highway	193	52%	176	-17
Air	88	24%	58	-30
Transit	43	12%	24	-19
Water	37	10%	12	-25
Rail	9	2%	0	-9
Other	3	1%	<1	-3
Total	373	100%	271	-102

Source: U.S. Department of Transportation. Bureau of Transportation Statistics. *Government Transportation Financial Statistics Fiscal Years 1985-1995*. Table A-2 (Part B): Transportation Revenues by Mode and Level of Government: FY1985-95; Table A-4 (Part B): Transportation Expenditures by Mode and Level of Government from Own Funds: FY1985-95. Constant 1992 dollars. Numbers may not add up due to rounding.

A related criticism of Amtrak is that the amount of Amtrak's support—\$35 billion over the past 29 years—is disproportionate to the number of people it serves. Amtrak represents about one percent of all passenger-miles traveled on common carriers—airplanes, buses, and trains.

²⁷Great Britain spends about 25 percent, and most other European countries about 33 percent, of their fuel taxes on road construction. U.S. Department of Transportation, *National Transportation Strategic Planning Study*, March 1990.

Table 1 also shows the proportion of federal government spending on the various transportation modes. Highways received 52 percent of the total funding, aviation 24 percent, transit 12 percent, water 10 percent, and Amtrak 2 percent. So Amtrak's support, as a proportion of all government spending on transportation, is not significantly out of proportion to its share of transportation service.

Unique Aspects of Rail as a Transportation Mode

There is an inconsistency in public funding for transportation in the United States. While passenger rail equipment (passenger trains) is publicly funded, most of the intercity passenger rail infrastructure (tracks) is privately owned and funded. By contrast, for highway and air travel, the passenger equipment (autos, planes) is privately funded, while the infrastructure (highways, airports, air traffic control) is publicly owned and funded. Thus, building and maintaining the infrastructure for highway and air travel has become the responsibility of federal, state and local governments, while building and maintaining the infrastructure for intercity rail travel is almost totally the responsibility of private industry.²⁸

Amtrak not only carries passengers, it is also responsible for a portion of the infrastructure needed to carry those passengers. Amtrak owns about 730 miles of track, while it operates trains over 23,000 miles of track. The rest of that track is owned by freight railroad companies, who are responsible for its maintenance. This reduces Amtrak's capital expenses from what they would be if Amtrak owned, and had to maintain, all the track over which it operates, but this also poses operational problems, which are discussed below under the section on Amtrak's difficulties in keeping to schedule. Nevertheless, even for the relatively small proportion of its infrastructure that Amtrak owns, its costs are considerable: Amtrak estimates that it will need to spend \$12 billion over the next 25 years for maintenance and improvements to just the southern portion of its Northeast Corridor (between Washington DC and New York City), a distance of 226 miles.

Amtrak's Current Level of Service

In addition to running a deficit and not serving a significant percentage of America's annual passenger traffic, Amtrak is routinely criticized for providing poor service: its trains run infrequently on most routes, run slowly on most routes, and often do not run on time. In an effort to improve its performance and its image, Amtrak introduced a 'satisfaction guarantee' for its passengers in July 2000; if passengers are not satisfied with their trip, they can get a voucher for future travel.

Infrequent Service

Infrequent service is attributable to low passenger demand and lack of funds. As private passenger rail service declined in the 1950s and 1960s, companies dropped

²⁸The federal government appropriates \$150 million each year to the states for safety-related improvements to highway-railroad grade-crossings.

routes; Amtrak's initial route system, designated by the U.S. Department of Transportation, was intended to maintain a minimal level of national service, which was all that (or even more than) Amtrak could afford. There have been some changes to the routes since then, though the total distance has stayed close to 23,000 miles. But lack of equipment, lack of funds, and low passenger demand has led Amtrak to reduce the level of service on some of the routes. On some routes, trains run only once a day, providing service to some cities only in the middle of the night; on some routes, trains run only once every other day.

Cutting back on frequency of service over marginal routes was found in the mid-1990s to cost more money than it saved (see discussion under "Shed Unprofitable Lines" on page 20). It is argued that more frequent service on some lines might produce more demand and more revenue. However, in many instances Amtrak does not have enough equipment to increase operations.

Inability to Keep to Schedule

Some have observed that on most of its routes, Amtrak trains run more slowly than did trains on the same routes 50 years ago.²⁹ Nevertheless, even with more time to travel from station to station, Amtrak's on-time performance is not impressive. Its average on-time performance is 79 percent, but this varies greatly between short-distance routes (less than 400 miles: 80 percent) and long-distance routes (more than 400 miles: 61 percent).³⁰ Even though Amtrak's on-time performance has been improving, its total hours of delay has been rising. Most of Amtrak's trains are short-distance, hence Amtrak's overall average is very close to its short-distance average; for Amtrak's long-distance trains, not being on time often means being several hours late.

Amtrak attributed 55 percent of its delays in FY1999 to freight traffic. This may be related to the willingness of the freight railroads to make way for Amtrak trains, and to some degree to their ability to do so.

It is widely believed among the passenger railroad community that freight railroads regarded passenger trains as nuisances even when the freight railroads were operating their own passenger trains. Now that passenger trains are "guests" on freight railroad tracks, they are reportedly even less welcome. Amtrak trains frequently have to slow down or stop to accommodate slower freight trains, although by federal law Amtrak trains are to be given priority over freight trains on track owned by freight railroads. However, this privilege has to be enforced, and there is an impression that different Amtrak administrations have varied in their willingness to insist on this priority.

²⁹Joseph Vranich, *Derailed: What Went Wrong and What to do About America's Passenger Trains*, St. Martin's Press, NY, 1997. Table 1-2, p. 13-14.

³⁰Amtrak, *FY1999 Annual Report*, Statistical Appendix, p. 42, 'On-time performance.' For a train whose route length is greater than 500 miles, Amtrak considers arrival within 30 minutes of its scheduled time as "on-time."

Moreover, the situation is made more difficult by the capacity limits of the railroad tracks, although these limits were created by the freight railroad companies themselves. Because they are private land, railroad rights of way are subject to property tax. Typically, when there is an active track on them, they are taxed at higher rates for this improvement, and if there are two parallel tracks, at an even higher rate. Therefore, one cost-saving measure railroad companies have taken over the past few decades has been to abandon track in order to reduce their property taxes and maintenance expenses. This practice was exacerbated by railroad mergers; when two railroads, each operating their own lines in a region, merged, the result was one company with lots of redundant track, much of which would be abandoned.

The number of track miles (the total length of railroad track) owned in the United States has declined from 319,000 miles (1970) to 171,000 miles (1998).³¹ Now that the railroad freight business is growing again, freight railroads are complaining of constraints in their ability to handle the increased business with the amount of track they have left. They also observe that these constraints would make it more difficult for them to accommodate increasing numbers of passenger trains over their track, let alone faster trains which would create even greater conflicts with the slow freight trains.³²

Slow Trains

How can it be that U.S. trains ran faster 50 years ago than today? The reason has much to do with both with the ownership of the tracks and their maintenance.

The Federal Railroad Administration has nine classes of track; each class has an upper speed limit (e.g., Class 1 track has a speed limit of 10 mph for freight trains and 15 mph for passenger trains, while Class 9 track has a speed limit of 200 mph for passenger trains).³³ The track rating is a reflection of the curvature and slope of the track and the level of maintenance it receives. Higher classes of track, which permit higher speeds, have higher maintenance costs.

When private railroads were hauling both passengers and freight and making money, they normally maintained their track to fairly high standards. When the financial fortunes of railroads began to decline due to competition from trucks hauling freight over publicly-provided highways, cutting back on the level of track maintenance was one way to save money, and since their trains were not permitted to run faster than 79 mph,³⁴ higher maintenance standards were unnecessary. When the railroads were freed of their obligation to run passenger trains by the creation of

³¹ Association of American Railroads, *Railroad Facts*, October 1999, p. 44.

³²U.S. Congress. House. *Amtrak's Current Situation*. Subcommittee on Railroads of the Committee on Transportation and Infrastructure. Hearings. 104th Congress, 1st Session. February 7, 10 and 13, 1995. (104-10). Testimony of A.R. Carpenter, President and Chief Executive Officer, CSX Transportation Inc. p. 361.

³³49CFR213.9(a); 49CFR213.307(a).

³⁴In 1947 the Interstate Commerce Commission imposed a 79 mph speed limit on all trains not equipped with special traffic signaling devices in the cab of their locomotives.

Amtrak, their incentive to maintain track at classes permitting even moderately high speeds was eliminated. Freight railroads are generally content to operate their trains at speeds of 59 mph or less; this imposes less wear and tear on their tracks, and since freight trains do not have to make frequent stops—as passenger trains do—their average speed will be close to that maximum speed.

Amtrak has maintained the Northeast Corridor, the track it owns, to class 7 standards (now maintained to class 8 to permit higher speed trains; see below). But 97 percent of Amtrak's 23,000 route miles are run over track owned by freight railroads. Federal law permits Amtrak to operate over the tracks owned by freight railroads at an incremental cost basis. That is, Amtrak only has to pay for any additional costs imposed on the freight railroads for carrying Amtrak trains.

If Amtrak wants to run its trains over their track at speeds much higher than their freight trains run, Amtrak has to pay the freight railroads for the cost of maintaining the track to that higher class. But if Amtrak is content to operate its trains at a top speed of 79 mph or less,³⁵ then it doesn't have to pay as much and its own expenses are less—which is an important issue for the financially-strapped company.

High-Speed Rail

While intercity travel by train nowhere commands the prominence it did before the appearance of cars and airplanes, the level of ridership in the United States is much lower than in many other countries. Britain, France and Germany all have passenger rail systems which account for about 6-8 percent of their total annual passenger travel miles; Japan's system carries 18 percent. One thing that sets the passenger rail networks of France, Germany, and Japan apart from the United States is that they all have nationwide systems of high-speed trains.

One of the difficulties facing intercity passenger rail travel is that its advantages have been overtaken by other modes of travel. Highways have enabled cars to be competitive with conventional trains in speed, while airplanes are able to carry as many passengers over long distances much faster than trains can manage. The implementation of high-speed rail train systems is intended to make trains more competitive with these other modes.

There is no precise speed threshold for differentiating a 'high-speed train' from other trains. It is more useful to talk in terms of 'high-speed rail networks'. Japan, France and Germany have developed nationwide rail systems capable of speeds of 150-180 mph. These systems consist not only of very fast trains, but also of dedicated grade-separated tracks and sophisticated signaling systems: they are the railroad equivalent of the U.S. Interstate Highway System. The overall speed of the system is a result not just of train speed but also of eliminating delays from slower trains and from slowing for safety reasons at road crossings. Thus, just introducing faster trains into the existing U.S. rail network will not achieve the same results. For example, Amtrak's new *Acela* train, which has a top speed of 150 mph or more, is only able to

³⁵Class 4 track has a speed limit of 60 mph for freight trains, 80 mph for passenger trains. 49CFR213.9(a).

average about 82 mph over the 226 miles of its Washington DC–New York City route, and only 55 mph over the 187 miles of its New York City–Boston route—routes which it shares with freight trains and commuter trains.³⁶

There is evidence that faster trains could result in increases in ridership and profitability. Amtrak’s only profitable service has been its Metroliners between Washington, DC and New York City; it hopes that its new *Acela* service will prove even more profitable. In other countries, the introduction of high-speed networks in heavily traveled corridors has reversed the decline in train travel in those corridors and made some of those routes profitable. The introduction of *Streamliners*—trains capable of speeds over 100 mph—in the United States in the 1930s had a similar impact.³⁷

The benefits of high-speed rail networks go beyond simply increasing ridership. Faster trains can increase a railroad’s productivity: a faster train can complete more trips each day, and thereby earn more revenue per day. Significant increases in productivity are not likely for the Northeast Corridor, however, where faster service will offer only a marginal reduction in trip times. But in other parts of the country faster trains could cut trip times in half or more.

On December 11, 2000 Amtrak began operating a new high-speed train, the *Acela*, in its Northeast Corridor between Washington DC and Boston. Amtrak is counting on this new service to boost ridership and revenues. Due to design and production problems, this service was behind schedule: Amtrak had hoped to have these trains in operation by the fall of 1999. As of January 2001, there is only one *Acela* roundtrip between DC and Boston each weekday. In its first four weeks of service, Amtrak reports that this train exceeded its revenue projections by 12 percent.³⁸ Amtrak plans to add one trainset a month until it has 19 *Acela* roundtrips each weekday between Washington DC and New York City and 10 roundtrips each weekday between New York City and Boston.

Amtrak—and Joseph Vranich, a prominent Amtrak critic and author of *Supertrains: Solution to American’s Transportation Crisis*—are optimistic about the prospects of faster train service to increase ridership and revenues. But a French transportation expert, assessing more than 15 years of experience with high-speed rail service in France, argues that high-speed rail networks are competitive with other travel modes only for a narrow niche—trips of 150 to 350 miles in length (or one to three hours on a high speed train). For trips of less than this length, he argues that the door-to-door flexibility of the automobile outweighs the time advantage of the trains, unless stations are near the passenger’s origin and destination point. And for trips of

³⁶ Computed from Amtrak’s *Northeast Corridor Timetable*. By contrast, Japan and France have routes on dedicated track with *average* speeds of 160 mph. “World’s Fastest Scheduled Train Service (as of 1997),” [<http://www2.newweb.ne.jp/wc/dolittle/byunbyun/speeds/world.htm>].

³⁷ Reutter, “The Lost Promise of the American Railroad,” *Wilson Quarterly*, Winter 1994.

³⁸ “Acela Express Gets Off to Strong Start,” Amtrak press release, January 11, 2001, [<http://www.amtrak.com/news/archive/atk0103.html>].

more than 350 miles or so, the airplane's greater speed trumps the train, since the cost of travel on the two modes is comparable.³⁹

The TGV [*Train a Grande Vitesse*] has thus resulted in a great reduction in air traffic between Paris and Lyons, Paris and Rennes, and Paris and Nantes, all being two-hour train journeys. But this is not the case for the Paris-Bordeaux line, which has had a three-hour TGV link since 1990. Air Inter, the national airline at that time, has retained 80% of its traffic along this route, a much higher figure than expected.⁴⁰

Washington, DC is 226 miles from New York City, which is 187 miles from Boston: well within high-speed rail's niche. But there are not many other city pairs in the United States whose distance and travel volume are suited for the expense of high-speed trains. Even in Japan, only one of their three high-speed train routes was profitable as of 1987.⁴¹

Options for Providing Intercity Passenger Rail Service in the United States

The Amtrak Reform Council is charged with providing Congress with an action plan for a restructured and rationalized national intercity rail passenger system, if the Council finds that Amtrak will not meet its goal of operational self-sufficiency by FY2003. In the meantime, there are numerous proposals for how Congress should deal with Amtrak. These include liquidating Amtrak, privatizing passenger rail service, introducing competition, freeing Amtrak from political interference, having Amtrak eliminate money-losing routes, providing only capital support to Amtrak, substantially increasing Amtrak's funding (prerequisite for any expansion of Amtrak's services), and continuing with the status quo.

Privatization

Some⁴² argue that the best course for improving passenger rail service in the United States is to privatize Amtrak, though what is meant by 'privatizing Amtrak' varies: eliminating government support, splitting up its operations, selling off its assets, or reducing its regulations. Advocates of privatization argue this would promote a more business-like approach on the part of Amtrak (or its successor). The advantage of privatization for public services is generally considered to be the freeing of an organization from regulations that restrict its operational efficiency. This new-found flexibility is supposed to enable the privatized organization to introduce process

³⁹ Christian Gerondeau, *Transport in Europe*, Artech House, Inc, Boston, 1997.

⁴⁰Ibid, p. 123.

⁴¹Since then the Japanese rail industry has been privatized, and individual line profits and costs have not been available.

⁴²Ronald D. Utt, *Congress Should Accept Industry Offers to Buy Amtrak*, Heritage Foundation Backgrounder, May 18, 1998, no. 1179; Vranich, *Derailed*, Chapter Nine;

innovations that achieve similar results at less cost. Where possible, the introduction of competition among service providers is also thought to lead to improvements in service and lower costs for public services.

Advocates of privatization cite the successful experiences of several other countries which privatized national rail operations and saw passenger rail traffic climb and government expenses drop.⁴³ However, there are disputes over the interpretation of profitability. For example, some say that France's high-speed rail network operates at a profit,⁴⁴ yet a French transportation expert says while one of France's three main high speed lines may be successful enough to pay its way, the other two are not, and that the French railway company has a "catastrophic" debt load due primarily to development of the high-speed rail network.⁴⁵ Moreover, even in those nations which have privatized their rail systems, the national governments still provide subsidies to the private rail companies.⁴⁶

There is nothing magical about private sector operations. Private companies routinely go out of business; even the largest and most successful companies make bad decisions. At one time, passenger rail service in the United States was provided by private companies in competition with each other. They were also in competition with other forms of transportation; were restricted by government regulation of their route structure, rates, and work rules; and were perhaps more interested in freight than their passenger operations. These private companies lost money providing passenger service. As a result, they reduced their investments in passenger service, and it declined further.

When Amtrak was created, it operated with a more privatized structure than now. Amtrak did not provide rail service directly; instead, it contracted with the private railroads to operate passenger trains over routes set by the Department of Transportation. Although Amtrak owned the trains (which had been given to it by the railroads), it did not have any operating employees or own any track. Instead, the railroad companies were still operating the trains, while Amtrak now had to cover their losses. Thus, while there was still ostensibly competition for passengers, the incentives of the railroad companies to hold down costs were reduced, as were their incentives to provide good service. On-time performance worsened. In time Congress restructured Amtrak, allowing it to buy the section of track between Washington, DC and Boston (the Northeast Corridor) and to take over direct operations of trains.

An Amtrak replacement would face several complications. Some of these were not faced by the privatization of government-owned railroads in other countries. For one, Amtrak does not own most of the track it uses. It owns the Northeast Corridor, but for the rest of its service around the country, it uses track owned by private freight railroad companies and pays them for its use. Thus, a replacement for Amtrak would

⁴³Vranich, *Derailed*, Chapter Nine.

⁴⁴Vranich, *Derailed*, p. 185.

⁴⁵Christian Gerondeau, *Transport in Europe* (Artech House, Inc, Boston, 1997), pps. 122-123

⁴⁶At least in the most prominent examples of privatization, Great Britain and Japan.

still have to deal with track access and maintenance issues with the freight railroads. Moreover, the freight railroad industry takes the position that Amtrak's franchises to use the rail lines owned by the freight railroads are not automatically transferable; they would insist on negotiating new terms and being satisfied as to the competence of any other operator before permitting use of their track.

There are several major expenses Amtrak pays that would continue to exist even if Amtrak did not. Chief among these are the costs of maintaining the Northeast Corridor, which is used by freight railroads and by regional commuter systems as well as by Amtrak trains. If intercity passenger rail were to be profitable anywhere in the United States, this corridor is the likeliest location: the only Amtrak service which makes enough money to cover its costs operates on this corridor. In the absence of Amtrak, the costs of maintaining this corridor would simply be shifted to other parties.

Another expense that would have to be shifted to other parties in the absence of Amtrak is its share of contributions to the Railroad Retirement Fund. Congress provides about \$175 million to Amtrak each year to cover its share of contributions to the industry-wide retirement plan for retirees who never worked for Amtrak;⁴⁷ Amtrak pays another \$63 million for its own current and retired employees.⁴⁸ In the absence of Amtrak, these costs could shift to the remaining U.S. railroad companies, or could continue to be provided by the Congress. Finally, there is Amtrak's debt; while the government is not considered to be liable for this debt, this debt might affect any future users of Amtrak's assets, which include its trains and the Northeast Corridor.

Finally, it is not clear that private providers would be willing to continue, let alone expand, a nationwide passenger rail system. There are segments of the system that might be profitable, such as the aforementioned Northeast corridor, which private companies might bid on. But if Congress remains committed to a nationwide system, the result might be to have the more profitable parts of the system operated as businesses, with the federal government continuing to subsidize the less-profitable segments of the system in order to maintain service on them.

There is little evidence that a national system of intercity passenger rail service can be operated at a profit, even by private providers. It is possible that private companies, more subject to the financial pressures of private markets, might be able to provide passenger rail service with less financial support from the government than Amtrak receives. But experience with privatization of government services over the past two decades has suggested that it is competition, rather than simply privatization, that is most likely to produce improvements in services.

⁴⁷For further information about Congress' contribution to Amtrak for the Railroad Retirement Fund, see Stephen J. Thompson, *Amtrak and Federal Financial Assistance: Background and Selected Public Policy Issues*, CRS Report 95-1199 E, updated September 9, 1998.

⁴⁸U.S. Congress. House. Subcommittee of the Committee on Appropriations. *Department of Transportation and Related Agencies Appropriations 2001*. 106th Congress, 2nd Session, March 15, 2000. p. 319.

Introducing Competition

Some argue that the source of Amtrak's problems is not government ownership, but lack of competition: until very recently, Amtrak has had a monopoly on intercity passenger rail service. They say that it is competition that promotes improved performance, so that the key to improving Amtrak's performance is not privatization per se, but the introduction of competition.

As noted above, when competition did exist for passenger rail service, the companies providing it lost money consistently, and thus sought to drop that service. It is also the case that those same companies were losing money on their freight operations, but now, after regulatory and structural changes in the industry, their freight operations are profitable. So the fact that competitive passenger service was a market failure in the past does not prove that it can never succeed.

However, Amtrak no longer has a legal monopoly over intercity rail passenger service: the ARAA repealed a statute that allowed Amtrak to prevent others from providing intercity rail passenger service over routes it serves. If Amtrak is still the only major provider of intercity services, it is not due entirely to legal barriers but to the lack of enthusiasm of the market to provide competition to Amtrak on a large scale.⁴⁹ However, it has been only three years since Amtrak's monopoly was eliminated; given more time, perhaps competitors will emerge.

However, it is likely that additional government action would be needed to promote competition. Because Amtrak was created to provide passenger rail service over a rail system that was owned by private companies, Amtrak was provided with a number of benefits to help it operate in such a setting. For example, its passenger trains have scheduling priority over freight trains on the track owned by the freight railroads. Also, Amtrak receives certain financial perquisites as a government-owned agency, such as the ability to lease vehicles from the General Service Agency, which saves Amtrak \$15 million each year.⁵⁰ Finally, there is Amtrak's annual appropriation from the federal government, without which Amtrak would be bankrupt. Congress would probably need to 'level the playing field' for a private company or companies in some way in order to make competition feasible.

Others argue that Amtrak has competitors now. While there may be no other major passenger rail companies in the United States, Amtrak competes with the airline industry, the intercity bus industry, and the private automobile to provide transportation.

⁴⁹There are small providers of intercity rail travel, such as the American Orient Express; they typically operate only a few routes once a week or so, and are not so much transportation services as entertainment services, like cruise ships.

⁵⁰*Congressional Record*, 106th Congress, 2nd Session, Senate, July 20, 2000, S7337-S7342.

Regulatory Reform

Still other critics argue that the problem with Amtrak is not that it is owned by the government or that it is a monopoly, but that it is subject to a variety of restraints that make it hard for Amtrak to innovate. These restraints are seen as two forms: regulatory restraints and political restraints.

Some critics of Amtrak argue that Amtrak's woes are the result of excessive regulation, and that if Amtrak were dissolved and passenger rail service privatized (i.e. freed of various work practice regulations), the result would be improvement in passenger rail service and growth in demand.⁵¹ Yet it is not clear that privatized rail service would be free of the regulations that apply to Amtrak. Since Amtrak is regulated as part of the railroad industry, any other company providing intercity passenger rail service would presumably be subject to the same federal safety and labor regulations. If Amtrak's woes are the result of excessive regulation, the solution would seem to be to change those regulations. The ARAA did reduce the level of regulation of Amtrak's work practices, but it may take time to see the results of those reforms.

Others argue that Amtrak's efforts to achieve profitability are hindered by the demands that Congress makes for services in constituent districts. A basic principle of entrepreneurial practice is to shift available resources from less productive activities to more productive activities. It is perceived by some that Amtrak cannot fully pursue this strategy, which they see as involving the termination of unprofitable long-distance routes, because without providing some limited level of service to many parts of the nation, Amtrak might not get the political support it needs to operate. In a statistical analysis of Amtrak service by one scholar, however, such political considerations appeared to play only a modest role in Amtrak's route decisions, while most of the variation in service across the country could be explained by such things as population size, population density, and distance between large population centers.⁵²

Moreover, privatized systems are not free of political influence. In Japan, the passenger rail companies are now private companies, but the national government assists with the construction of new high-speed rail lines. These lines are greatly desired by political and business officials in the country's outlying districts, and it is reported that the national government is constructing more lines than are economically justifiable or than are wanted by the rail companies who will be responsible for providing service over these routes.⁵³

⁵¹Vranich, *Derailed*.

⁵² David C. Nice, *Amtrak: The History and Politics of a National Railroad*, Lynne Rienner Publishers Inc, Boulder, Colorado, 1998, p. 31-42.

⁵³Yukihide Okano, "The Backdrop to Privatization in Japan," *Japan Railway and Transport Review*, Summer 1994; *Far Eastern Economic Review*, "Pork Barrel Express," November 11, 1999.

Divide Responsibility for Infrastructure from Operations

As mentioned before, rail is unique among transportation modes in the United States in that its infrastructure is privately owned and thus the responsibility of the rail companies. Some⁵⁴ have proposed that passenger rail service could be improved if the responsibility for maintaining the infrastructure, the tracks, was given to the government, as is the case with highways, waterways, and air travel infrastructure. This would free Amtrak to concentrate on operations, and relieve it of a very costly burden. Moreover, it is thought that this might promote competition by encouraging the entrance of new rail passenger operators.⁵⁵

Conversely, this option might be opposed by the freight railroads, which own 99 percent of the track over which Amtrak operates. Also, it is not clear that the federal government would be prepared to assume responsibility for a rail network that has always been owned and operated by private companies (save for a brief period during and after World War I). However, even shifting responsibility for the one percent of its track which Amtrak does own, the Northeast Corridor, to another entity would free Amtrak of well over \$12 billion in capital costs over the next 25 years for the maintenance of that line.

Shed Unprofitable Lines

Some argue that Amtrak should eliminate routes on which it loses money. However, Amtrak loses money on virtually every route it operates.⁵⁶ Also, since in most of the country Amtrak is providing only limited service already, eliminating routes would conflict with the goal of maintaining a nationwide passenger service—and would weaken the political support for Amtrak.

Also, eliminating routes could cost Amtrak more money.⁵⁷ This is due to the division of Amtrak's expenses: some are fixed costs and some are variable costs.

⁵⁴U.S. Congress. House. Committee on Transportation and Infrastructure. *A New Vision for America's Passenger Rail: The Report of the Working Group on Intercity Passenger Rail to the Committee on Transportation and Infrastructure*. June 1997. ([<http://www.house.gov/transportation/rail/railrpt.htm>]).

⁵⁵ This is the approach recommended by European Union Directive 91/440, which seeks to make railways independent enterprises that are commercially viable. This Directive requires, among other things, that the railways divide their infrastructure from their operations; the states will still be responsible for the infrastructure, but the operations will have to be run on a commercial basis. Erik Vandenbroele, "Railway Transport Policy in Europe," *Japan Railway and Transport Review*, #2 (June 1994).

⁵⁶U.S. GAO, *Intercity Passenger Rail: Financial Performance of Amtrak's Routes*, May 1998, GAO/RCED-98-151; Amtrak, *FY2001 Route Profitability System Report*, February 15, 2000.

⁵⁷U.S. Congress. House. Subcommittee on the Department of Transportation and Related Agencies Appropriations, Committee on Appropriations. *Department of Transportation and Related Agencies Appropriations 2001*. 106th Congress, 1st Session. March 13, 2000. P. 153-154.

Fixed ('overhead') costs do not flow from any one route but represent the cost of keeping the entire company running: the costs of administration, maintenance of tracks and equipment, repair yards, workers, payments on debts, taxes. These costs are divided among all routes. If Amtrak stops running one route, that route's share of the fixed costs must then be paid by the remaining routes, meaning that each remaining route becomes more costly.

Variable costs are those created by running a particular train: e.g., the cost of fuel and wear and tear on the equipment. Eliminating a train on a route would save the cost of running that train, but will also eliminate the revenues received by running that train.

Amtrak has already reduced service in many parts of the country to one train per day, or even one train every other day. Amtrak tried cutting unprofitable routes in the mid-1990s, and found that it lost more money by doing so.

Polls show that a majority of Americans like the idea of having a passenger train available to them to use; however, these polls do not ask them how much they are willing to pay to have the service available. Meanwhile, transportation statistics show that in most parts of the country, very few of these Americans actually take advantage of the availability of passenger train service. However, Amtrak's long-distance trains, the ones that cross the Great Plains and stop in small towns, have some of the highest rates of ridership (percentage of seats filled) of all Amtrak routes.⁵⁸

Provide Federal Funds Only for Capital Investments

Some, recognizing that rail is unique among transportation modes in the United States in having to pay for its own infrastructure, have proposed providing support for capital projects for passenger rail, while requiring Amtrak to cover its operating costs on its own. Advocates maintain that this option would put Amtrak on a more equal footing with other transportation modes, and enable Congress to make a fairer comparison between Amtrak's performance and that of other transportation modes.

In FY1973, Congress began designating some of the funds it appropriated to Amtrak as 'operating funds'; in FY1976, Congress began designating some of its appropriation as 'capital funds.' Since FY1998, Congress has appropriated funds to Amtrak designated as 'capital grants,' with the provision that these moneys could also be used for operational expenses. The ARAA provision that after FY2002 "no funds authorized for Amtrak shall be used for operating expenses" implies that funding might still be provided, which by process of elimination would be for capital investments.

Amtrak is not now able to cover its operating costs out of its own revenues, and so has been using government funding to help cover its operating deficits. This has

⁵⁸U.S. Congress. House. Subcommittee on the Department of Transportation and Related Agencies Appropriations, Committee on Appropriations. *Department of Transportation and Related Agencies Appropriations 2001*. 106th Congress, 1st Session. March 13, 2000. P. 250-251.

been exacerbated by Amtrak's borrowing to make capital purchases, since repayments of this borrowing are an operating expense. Facing the prospect of not being able to use government funds for its operating costs after FY2002, Amtrak has reclassified some operating costs as capital costs, with the Congress' consent (see Appendix).

Some say that holding Amtrak to this standard would be fair only if the government had already provided the level of support needed to establish a modern system of rail infrastructure for Amtrak to operate over. This argument presumes that expanded and improved passenger rail infrastructure would have resulted in increased ridership and improved financial performance for Amtrak.

Increased Funding for Passenger Rail Service

Several funding mechanisms have been proposed for Amtrak, either as supplements or replacements to the current practice of providing annual grants. These include creating a dedicated source of funding similar to those of the other transportation modes, giving Amtrak more bonding authority to raise its own funds, and giving states the flexibility to use their federal highway funds for rail transportation.

Trust Fund. A dedicated source of funding has been Amtrak's goal for a long time. The highway, aviation, and transit industries each have one. The suggested source for Amtrak is usually the motor fuel tax. The total federal tax on motor fuel is 18.3 cents, of which 15.44 cents goes into the Highway Account of the Highway Trust Fund and 2.86 cents goes into the Mass Transit Account (0.1 cent goes into the Leaking Underground Storage Tank account).

The argument against this has been that the Highway Trust Fund and the Aviation Trust Fund are funded by taxes that are, essentially, user fees. The railroads also pay taxes on fuel, but these taxes go into the U.S. Treasury General Fund. In November 1995, the Senate Finance Committee approved a proposal to divert ½ cent of the 2.86 cents that goes to transit into a dedicated fund for passenger rail (Amtrak); that legislation did not pass. In 1997 Amtrak requested that ½ cent from the 4.3 cents that Congress added to the fuel tax in 1993 as a 'deficit reduction' tax be set aside in a trust fund for capital improvements; they estimated that ½ cent would raise \$750 million each year.⁵⁹ The Intercity Passenger Rail Trust Fund Act of 1997 (S. 436) would have done this; it did not pass.

Allow States to Use Federal Highway Funds for Rail. A number of states are showing increasing interest in expanding Amtrak's operations within their boundaries. They argue that, in the spirit of federalism and local control, they are better judges of their transportation needs than is Washington, and that giving them the flexibility to use their federal highway funding for rail projects would enable them to create more balanced transportation systems.

⁵⁹Hearing Before the Subcommittee on Surface Transportation and Merchant Marine of the Committee on Commerce, Science, and Transportation, United States Senate, March 13, 1997 (S. Hrg. 105-273), p. 54.

Some opponents of this concept argue that highway needs are so great that no moneys available for highway construction or maintenance should be used for any other purpose. They also argue that the fuel tax is primarily paid by highway users, therefore the revenues from the fuel tax should be primarily dedicated to highway improvement. Others believe that allowing states to expand passenger rail service on a piecemeal basis will reduce the responsibility of Congress to support an expanded national system.

Currently, states are prohibited from using their federal transportation funding for rail, although they are allowed to use it for intercity buses. A provision to allow states the flexibility to use a portion of their federal highway funds for passenger rail projects has been approved in the Senate in the past.⁶⁰ The Surface Transportation Act of 1999 (S. 1144, 106th Congress) would have allowed states this flexibility, as would have H.R. 3630 (106th Congress).

Tax-exempt Bonds. The High-Speed Rail Investment Act of 2000 (S. 1900, H.R. 3700, 106th Congress) would have enabled Amtrak to raise up to \$10 billion over the next ten years by issuing up to \$1 billion in bonds each year. These bonds would not pay interest; instead, the bondholders would be eligible to deduct a certain amount from their taxes. The estimated cost to the government over ten years was \$3.2 billion; in exchange, Amtrak would receive a much larger amount, and in a predictable revenue stream, which would enable it to prepare realistic long-term capital plans.

In addition, these bills would have enabled Amtrak to contract with states to provide capital improvements, with a 20 percent match by the states. They would have required Amtrak to cooperate with the states in the development of high-speed rail corridors, while also giving states an incentive to invest in this transportation mode. Amtrak would have been able to leverage a large amount of money with a lesser cost to the government.

While this legislation did not pass the 106th Congress, Senate leaders pledged to reintroduce the legislation early in the 107th Congress. Senator John McCain, Chairman of the Committee on Commerce, Science and Transportation, opposed the bill but promised to hold hearings on the reintroduced bill during the 107th Congress and allow the legislation to move forward.⁶¹

Continue the Status Quo

Since its inception, Amtrak has received an annual grant from the Congress. One difficulty with this approach is that the annual level of funding has been unpredictable, making it very difficult for Amtrak to plan ahead. Rail infrastructure projects are by nature long-term projects. It takes years to construct or upgrade rail lines; without a secure and predictable source of funding over a multi-year period, such projects are

⁶⁰ Senate version of S. 440, the National Highway System Designation Act of 1995; also in 1991 and 1997.

⁶¹“Amtrak Faces Funding Obstacles; Senator McCain Seeks Debate on Type of System U.S. Needs,” *Washington Post*, January 11, 2001, A25.

difficult to carry out. Thus this arrangement has created difficulties for Amtrak's operations.

The creation of Amtrak was a compromise between those who felt that a national system of passenger rail service was an important part of the nation's transportation system, and those who felt that passenger rail service was no longer needed in an era of air travel and near-universal automobile ownership. Passenger rail service was given enough government support to survive, but probably not enough to allow it to prosper. The fluctuations in Amtrak's funding over its life reflect the continuing conflict between these two perspectives. At present, it appears likely that this stalemate will continue at the federal level, with Amtrak expanding its operations piecemeal in those states willing and able to pay for additional service with their own assets.

Appendix: Disputes over What Constitutes Amtrak's 'Operating Expenses'

Part of the question of whether Amtrak will be able to cover its operating expenses out of its revenues by FY2003 involves what those operating expenses will consist of. Generally Accepted Accounting Principles (GAAP) define what are operating expenses and what are capital expenses for accounting purposes. Amtrak prepares its annual financial statements in accordance with GAAP. But for many years now, in reporting its annual operating expenses—or more specifically, its shortfall in covering its annual operating expenses—to the Congress, Amtrak has excluded two types of expenses that GAAP defines as operating expenses: depreciation, and progressive maintenance. This exclusion has been quite explicit, and Congress has accepted it. The Amtrak Reform Council (ARC) appears to be arguing that these expenses should be counted as operating expenses in assessing whether Amtrak clears the bar of covering its operating expenses by FY2003; this would have the effect of raising that bar by about \$570 million.⁶²

Depreciation. Amtrak interprets the ARAA requirement that it operate without federal financial assistance to cover operating losses as excluding depreciation from operating costs for this purpose.⁶³ One of the recommendations for change made by the ARC is that the yardstick for measuring whether Amtrak has achieved

⁶² Amtrak Reform Council, *First Annual Report*, January 24, 2000, p. 9.

⁶³ Depreciation is the allocation of the expense of a long-lived (i.e., capital) good over the period of its useful life for accounting purposes; e.g., if Amtrak buys a passenger car for \$2,000,000 that has a useful life of 20 years, the car is considered an asset, and Amtrak would record an expense for depreciation of that car of \$100,000 (\$200,000/20) in each of the next twenty years. The depreciation expense is a proxy for the need to replace a deteriorating asset; e.g., Amtrak might set aside \$100,000 of revenue each year to cover the depreciation expense, so that at the end of 20 years it would have \$2,000,000 available to buy a new car. If depreciation is not taken into account, for 19 years things look good, then in the 20th year Amtrak has to come up with \$2,000,000 to buy a new car.

operational self-sufficiency should be GAAP, which include depreciation as an expense.

In this view, by allowing Amtrak to exclude depreciation from its operating expenses for Congressional purposes, Congress is setting a lower standard for Amtrak's financial performance: it has to earn enough to cover its current expenses, but the costs for repairing and maintaining its long-term assets (track, cars, stations, etc) are not counted. The money to pay for those costs will have to come from somewhere, most likely from the federal or possibly state governments.

Conversely, if depreciation were to count as an operating expense against Amtrak's goal of becoming financially self-sustaining in operating costs, the result would be to put Amtrak on a slope that would become ever steeper. For depreciation costs—the replacement costs of capital assets—will inevitably rise as an organization's capital investments increase. As Amtrak increases its investment in track and trains, which is necessary to increase its revenues and attain operating self-sufficiency, its depreciation expenses will increase right along with that increase in investment.⁶⁴ Amtrak's depreciation expense is projected to rise from around \$370 million in FY1999 to around \$490 million in FY2002.

Progressive Maintenance. The ARC has observed that Amtrak classifies maintenance expenditures for its capital goods as a capital expense rather than an operating expense. Under GAAP, maintenance is considered an operating expense. Amtrak spends around \$80 million each year on 'progressive maintenance', keeping its equipment in a good state of repair, which prolongs its useful life. For accounting purposes it classifies that expense as an operating expense, but for purposes of counting whether it is on track to meet Congress' operating self-sufficiency requirement it does not. Amtrak's defense of this practice is that it has been counting that expense as a capital expense since 1993, with Congress' consent.

Apparently this practice began in 1992; in that year the cost of overhauling some of its rolling stock exceeded 50 percent of the book value of the equipment, so Amtrak reclassified some of its overhaul expenses as capital expenses.⁶⁵

Amtrak proponents contend that this practice is common in the transportation field. They note that the Federal Highway Administration classifies maintenance of roads as a capital expense for receipt of federal highway funds. The FY1998 Department of Transportation Appropriation Act (P.L. 105-277) amended the definition of capital project to include 'preventive maintenance' for Formula Programs in FY1998; the Transportation Equity Act for the 21st Century (TEA-21, P.L. 105-178) amended the definition of capital project to include 'preventive maintenance' as a capital rather than operating expense for transit programs.

⁶⁴ Office of the Inspector General, U.S. Department of Transportation, *Report on the 1999 Reassessment of Amtrak's Financial Needs Through Fiscal Year 2002*, Report No. CE-1999-116, July 21, 1999, p. 28.

⁶⁵ US GAO, *Amtrak's Financial and Operating Conditions*, GAO/RED-9571, February 1995, p. 49, footnote 5.