Costs, Benefits, and the Future of Amtrak

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I. Introduction

In his State of the Union message on February 6, 1985, President Ronald Reagan demanded an end to federal funding for Amtrak, the National Railroad Passenger Corporation which operates virtually all of the intercity passenger rail service in the United States. Discussing his proposals to reduce the federal budget deficit, the President said:

> Third, we must reduce or eliminate costly government subsidies. For example, deregulation of the airline industry has led to cheaper air fares, but on Amtrak taxpayers pay about $35.00 per passenger every time an Amtrak

train leaves the station. It's time we ended this huge federal subsidy.[1]

Echoing the President's remarks, then-Budget Director David A. Stockman[2] denounced Amtrak as a "mobile money-burning machine" and declared that Amtrak was "the litmus indicator" of whether Congress would have the political courage to bring the deficit under control.[3]

So far, however, Congress has defied the Reagan Administration and has refused to terminate the funding which keeps Amtrak operating. During the budget confrontations of 1985 and 1986, Amtrak has rallied congressional and public support for its continued existence, although at a reduced level of funding.

What accounts for the survival of passenger trains in an era of jet aircraft, deregulated transportation, the interstate highway system, and growing federal budget deficits? Supporters of Amtrak point to a mixture of social and economic benefits which they claim that rail passenger service provides: environmental protection, a high level of passenger safety, energy conservation, and an alternative system of transportation which can be used during national emergencies, strikes, and fuel shortages.[4]

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1. The State of the Union, 21 WEEKLY COMP. PRES. DOC. 143 (Feb. 6, 1985).

2. David A. Stockman resigned as Director of the Office of Management and Budget on July 9, 1985. Stockman had held the position since the Reagan Administration took office in 1981. Washington Post, July 10, 1985, at 1, col. 4.

3. "There are few programs I can think of that rank lower than Amtrak in terms of the good they do, the purpose they serve, and the national need they respond to," Mr. Stockman told the Subcommittee on Surface Transportation of the Senate Committee on Commerce, Science, and Transportation. "If we don't have the courage, the foresight, the comprehension of our problem that is sufficient enough to get rid of Amtrak," Mr. Stockman said, "I don't think we're going to shave much off the budget at all. . . . Amtrak is the litmus indicator. . . . Without total subsidy termination and the opportunities offered through liquidation of Amtrak's assets," Mr. Stockman continued, "the Federal Government will continue to pour billions of dollars more into the Amtrak mobile money-burning machine." *Stockman Presses Senators to End Amtrak Subsidy*, N.Y. Times, April 30, 1985, at A27, col. 4. *See also, Young David's Tantrum*, N.Y. Times, May 3, 1985, at A31, col. 1.

4.

> One of the most energy-efficient, safest, fastest, and least environmentally harmful ways of transporting people and goods is the technology of flanged wheel on steel rail. A modern eight-car passenger train can carry 550 passengers one mile on two gallons of diesel fuel. Factor electric power into the equation and energy savings can be increased 30-50 percent. The passenger train has proven itself to be the safest mode of transportation available, far outdistancing cars, planes, and busses [sic] in its per mile safety record. . . . In Western Europe, the average speed of a passenger train is around 80 mph, with the newer express trains averaging around 95 mph. Electrified railroads have also been cited by environmental groups for their positive relationship to the environment.

H. Griesman, *Rail Passenger Service and Social Needs*, 5 J. INST. FOR SOCIOECONOMIC STUDIES 63 (1980); *see also* CONGRESSIONAL BUDGET OFFICE, FEDERAL SUBSIDIES FOR RAIL PASSENGER SERVICE: AN ASSESSMENT OF AMTRAK 9 (1982):

> The arguments for continuing Amtrak subsidies center around the public benefits conveyed by rail passenger service. Advocates of Amtrak's subsidies contend that a national rail passenger network provides both transportation services and secondary

Opponents of Amtrak ridicule these claims, and charge that Amtrak should not be kept going simply because "it permits Congressmen to have a toy railroad and labor unions to have institutional featherbedding."[5]

The essence of the criticism of Amtrak is that the system has cost too much and has failed to produce the benefits Congress intended.[6] To evaluate these charges, it is necessary to answer two questions. First, what benefits did Congress expect as the fruits of its subsidies to Amtrak? And second, how has Amtrak performed in light of these expectations?

The answers to these questions will be presented in the following steps. Congressional intentions toward Amtrak have evolved over the sixteen year history of the system. It will be assumed that this evolution arises from the interaction of Amtrak's actual operations with congressional legislation intended to direct and improve these operations. Therefore, the first step will be to review the historical development of Amtrak and its legislation to determine what Congress expected from the system and how these expectations have changed over time.

The second step is to consider data generated by three studies of Amtrak[7] which attempted to evaluate its performance to determine how Amtrak has performed in light of Congressional expectations.

Finally, the Conclusion will demonstrate that prior studies have underestimated both Amtrak's contribution to the social and economic goals set by Congress and its ability to reduce the need for federal subsidies. The Conclusion will also look at the consequences of the proposed elimination of Amtrak.

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benefits that are essential to public well-being, and therefore, that federal support is warranted.

5. HOUSE COMM. ON INTERSTATE AND FOREIGN COMMERCE, AMTRAK REORGANIZATION ACT OF 1979, H.R. Rep. No. 189, 96th Cong., 1st Sess., 90, *reprinted in* 1979 U.S. CODE CONG. & AD. NEWS 1198, 1232 (minority report) [hereinafter cited as 1979 ACT. LEG. HIST.].

6. *See* remarks of David Stockman, *supra*, note 3; *see also:* Johnson, *Lessons from Amtrak and Conrail,* 49 I.C.C. PRACT. J. 247 (1982); *see also:* Semmens, *Don't Let Amtrak Con You,* REASON 37 (May, 1985).

7. F. MULVEY, AMTRAK: AN EXPERIMENT IN RAIL SERVICE, NATIONAL TRANSPORTATION POLICY STUDY COMMISSION SPECIAL REP. NO. 2 (August, 1978) [hereinafter cited as MULVEY]; G. HILTON, AMTRAK: THE NATIONAL RAILROAD PASSENGER CORPORATION (1980) [hereinafter cited as HILTON]; CONGRESSIONAL BUDGET OFFICE, FEDERAL SUBSIDIES FOR RAIL PASSENGER SERVICE: AN ASSESSMENT OF AMTRAK (1982) [hereinafter cited as CBO STUDY].

II. THE EVOLUTION OF AMTRAK, 1970-1987

A. *THE DECLINE OF RAIL PASSENGER SERVICE AND THE CREATION OF AMTRAK*

1. *THE DISAPPEARANCE OF THE PASSENGER TRAIN*

The passenger train was the dominant mode of travel in the United States for nearly a century, from approximately 1850 until 1950. After World War II, passenger rail service rapidly lost its share of the transportation market to the automobile, the airplane, and the intercity bus.[8] Prior to 1958, individual state regulatory commissions had jurisdiction over passenger train discontinuances.[9] In 1958, in order to allow for more rapid discontinuances, Congress gave the Interstate Commerce Commission jurisdiction over passenger train discontinuances.[10] Although the Commission refused to allow rail passenger service to disappear completely, the trend toward extinction was overwhelming. The House Interstate and Foreign Commerce Committee later observed:

> In 1929, there were some 20,000 passenger trains in the United States. Nine thousand of these had disappeared by 1946. Here in 1970 there are

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8. "Rail intercity passenger traffic had been steadily decreasing since World War II. In 1947 there were 39,921 million intercity passenger miles. By 1970 this figure had shrunk to 6,179 million passenger miles. In 1958 there were 1,450 intercity passenger trains; by 1968 this figure had atrophied to less than 600." Johnson, *Lessons from Amtrak and Conrail,* 49 I.C.C. PRAC. J. 247, 250 (1982); *see also:* Thoms, *Amtrak: Rail Renaissance or Requiem?* 49 CHI. [-] KENT L. REV. 29, 30 (1972):

> The decline of railroad passenger service is a familiar story. The automobile has replaced all other vehicles as the dominant mode of transportation. Much of this change is due to the inherent or supposed advantages of the personal car; some of this change is due to the lack of alternate transportation, especially in suburban and rural areas. Within the common-carrier market, railroads have lost patronage to the airplane and intercity bus. This loss has occurred even in markets not suited for other carriers, this fact giving some credence to the belief that the railroads, intent on concentration on the carload freight traffic, have either let other facilities wither or have actually discouraged use of their trains for travel. The resulting loss occurs when facilities are allowed to become so decrepit and inconvenient that anyone with good sense will avoid them. . . .

9. "Railroad corporations received charters from the states in which they operated, some states requiring that the corporation must be organized under its laws in order to operate in that state. These charters usually vested the railroad with a public mission and some public responsibility. They were chartered for the carriage of passengers and freight for which they were incidentally permitted to charge fares." W. THOMS, REPRIEVE FOR THE IRON HORSE: THE AMTRAK EXPERIMENT—ITS PREDECESSORS AND PROSPECTS 1 (1973) [hereinafter cited as THOMS].

10. Transportation Act of 1958, Pub. L. No. 85-625, 72 Stat. 568, (1958) (codified at 49 U.S.C. §§ 10501, 10524, 10526, 10704, 10908, 10909, 11501, 1231-40).

> As a result of the enactment of Section 13a of the Interstate Commerce Act in 1958, all total abandonments and discontinuances of passenger trains by carriers operating in interstate commerce were made subject to at least the concurrent jurisdiction of the Interstate Commerce Commission. . . . Congress thought it necessary to strengthen the financial health of the railroads by, inter alia, allowing the railroads, at their option, to have the ICC, rather than state commissions, pass upon discontinuance or change in the operation of any trains or ferry.

THOMS, *supra* note 9, at 12.

> less than 500 and over 100 of these are presently in the process of discontinuation proceedings before the Interstate Commerce Commission.[11]

Two explanations have been given for this phenomenon. In 1958, Howard Hosmer (an examiner for the Interstate Commerce Commission) prepared an economic analysis of the rail passenger service industry which claimed that the demand for service was declining because the public preferred to travel by automobile or airplane.[12] The railroads attempted to compete by providing labor-intensive luxury services, and high labor costs made it impossible to operate profitably. Hosmer concluded that market forces would eventually eliminate passenger rail service as they had eliminated the stage coach.

Not all agreed with Hosmer's analysis. During the 1960s, as passenger trains began to disappear with increasing frequency, supporters of rail passenger service reached a very different explanation, which came to be known as the "discouragement hypothesis."[13] Because railroad companies could operate freight service at a profit but lost vast amounts of money on passenger trains, some observers claimed that the companies actively discouraged the public from riding their own trains by intentionally providing unacceptably poor service.

Both explanations of the decline of private, for profit passenger rail service are relevant to Amtrak. Critics of Amtrak rely on Hosmer's economic argument that passenger trains are obsolete and inherently inefficient and should be allowed to disappear. Supporters of Amtrak, relying in part on the discouragement hypothesis, argue that passenger trains have a natural place in the transportation system provided they offer a reasonable quality of service to the public.

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11. HOUSE COMM. ON INTERSTATE AND FOREIGN COMMERCE, RAIL PASSENGER SERVICE ACT OF 1970, H.R. REP. 180, 91st Cong., 1st Sess., *reprinted in* 1970 U.S. CODE CONG. AND AD. NEWS, 4735 at 4736 [hereinafter cited as 1970 ACT LEG. HIST.].

12. HILTON, *supra* note 7, at 8; *see also:* Note, *Amtrak's Legislative Mandate: A Time for Rethinking?*, 8 J. LEGIS. 334, 335 (1981).

13. *See generally,* P. LYON, TO HELL IN A DAY COACH 226 (1968): "For at least a generation, all of them [the private railroad companies] have, for sundry reasons, persistently sought to scuttle most of their passenger service, and some of them have contrived to slaughter their passenger business entirely." *See also* THOMS, *supra* note 9, at 17:

> By 1966, the ICC had acknowledged the existence of some 'downgrading,' due to the presence of a few horrible examples. Many of the landmark proceedings in which this charge was sustained involved the massive Southern Pacific, a carrier of herculean proportions and great wealth and a singular hostility toward the hapless traveler who sought to utilize its services. . . . After some disappointing experience with newly-equipped trains in the early post-war era, the Southern Pacific decided to rid its rails of passenger trains as expeditiously as possible. . . . [T]he road's legal department was instructed to calculate ways to discourage passengers on the trains in question. The S.P. eliminated all mention of these trains in its timetables, instructed ticket agents to deny their existence, closed the depots a couple of hours before departure time, and forced passengers to ride in a caboose instead of a coach due to 'equipment shortages.' [footnotes omitted].

2. THE HIGH SPEED GROUND TRANSPORTATION ACT OF 1965

Social and environmental concerns in the 1960s led to a public re-evaluation of the passenger train and an important federal initiative which helped to preserve it: the High Speed Ground Transportation Act of 1965.[14] In 1962, Senator Claiborne Pell (D-RI) proposed the development of high-speed rail service from Boston to Washington, D.C. as a response to urban congestion, slow highway and air traffic, the high land-use requirements of highway construction, and "the indignities visited upon him while traveling between his constituents in Providence and Senate meetings in Washington."[15] Senator Pell's proposal generated public support because of widespread frustration with inadequate highway and air transportation and concern over environmental deterioration. Another likely explanation is that as more Americans traveled abroad, they encountered the well-developed passenger rail systems of Western European countries and Japan. Many became convinced that similar service could—and should—be available in the United States. In 1967, the National Association of Railroad Passengers was formed to mobilize public support, lobby for legislation to improve rail passenger service, and oppose passenger train discontinuances.[16]

The High Speed Ground Transportation Act of 1965 authorized the Secretary of Commerce to develop "demonstration projects" as models for improved rail passenger service.[17] Three projects experimented with ideas which were later used by Amtrak. The first was the "turbotrain,"[18] a light-weight, double-ended train powered by a turbine engine which resembled the Japanese high-speed "bullet" trains. A more famous project was the "Metroliner," an electric train developed jointly by the Department of Transportation and the Penn-Central Railroad.[19] The Metroliner operated at speeds of up to 125 miles per hour, cutting travel time

14. High Speed Ground Transportation Act of 1965, Pub. L. No. 89-220, 79 Stat. 893 (1965).

15. THOMS, *supra* note 9, at 27.

16. *Id.* at 13.

17. *Id.* at 27.

18. The Turbotrain was developed by United Aircraft, Inc., and began operating between New York and Boston on April 8, 1969. Although the Turbotrain was capable of speeds up to 170 miles per hour, in actual service between New York and Boston, its speed had to be held back to 80 miles per hour because of the condition of the right-of-way. *Id.* at 27-28.

19. The Metroliners began operating between New York and Washington, DC on October 1, 1970, and consisted of self-propelled cars (with no separate locomotive) powered from overhead electric catenary wires. *Id.* at 28-29. The Metroliner project has been described as one of the few 1960s "Great Society" projects which succeeded in attaining its objective. The reasons for this success are said to be: 1). a clear goal; 2). presidential involvement; 3). a skillful project director; 4). project autonomy; 5). a timetable; 6). project visibility; and 7). Congressional support. Shapiro, *The Seven Secrets of the Metroliner's Success*, PEOPLE AND PUBLIC ADM. 15 (P. Present, ed., 1979).

from Washington to New York from an average of over 4 hours to 2 hours and 59 minutes. The third project planned in this period was a train which would carry both passengers and their automobiles.[20]

These projects (particularly the Metroliner) are significant in the history of Amtrak because they served as models and gathered public support for improved rail service. Three assumptions were carried over into Amtrak: that new equipment and better service would bring the traveling public back to the trains; that social and environmental policy considerations required improved rail passenger service; and that the federal government should take a leadership role in the development of modern rail passenger service and contribute to the costs.

3. THE CREATION OF AMTRAK

Not all of passenger railroading's problems were technological. Some appeared to be organizational. Before World War II, privately-owned, profit-seeking corporations had been successful in the railroad industry. After the war, rail passenger service's declining share of the transportation market made competition between profit-seeking corporations seem to be an inappropriate, destructive form of organization for the industry. Instead of encouraging efficiency and innovation, competition between financially weakened corporations which could not earn an adequate return on investment led to the impoverishment of the railroad industry. The deficits created by passenger operations (which in some cases existed only because regulatory agencies required preservation of the service) threatened to bankrupt the railroads, eliminating both passenger and freight service.[21]

Advocates of revived passenger rail service therefore looked for a different organizational model. Ideas circulating in the late 1960s included: nationalization of the railroads by the government; governmental subsidies to existing railroad companies to cover operating losses; the formation of a public or quasi-public corporation to operate passenger service; and a federal grant program for improved equipment and

20. The plan was not implemented for lack of funding. THOMS, *supra* note 9, at 29. A non-governmental corporation (the Auto-Train Corporation) operated a commercial auto-ferry service between Lorton, VA (near Washington, DC) and Sanford, FL (near Orlando) from 1971 to 1981. Amtrak revived Auto-train service between these points in 1983. *See* NATIONAL RAILROAD PASSENGER CORPORATION ANNUAL REPORT 1984 8 (1985) [hereinafter cited as AMTRAK, ANNUAL REPORT 1984].

21. "On a fully-allocated basis, the loss to all American railroads from passenger service in 1957, the year before passage of Section 13a of the Interstate Commerce Act, was $723,670,000, and in 1967 the losses were still $480,000,000." THOMS, *supra* note 9, at 5. In 1969, the rail passenger service deficit was about $200 million, while total rail net income was only $500 million. 1970 ACT LEG. HIST., *supra* note 11.

facilities.[22]

The legislative history of the bill which ultimately created Amtrak emphasized that Congress believed that rail passenger service was about to disappear completely, and that if it did, the public would suffer serious social and environmental consequences.[23] Congress agreed that the situation called for more than the perpetuation of existing organizations and services: "Positive action and a completely new direction is required—and urgently required—now. That is the intent of this bill [H.R. 17849]. It envisions a completely new effort to save and promote rail passenger service."[24]

Secretary of Transportation John Volpe proposed the bill which led to the creation of Amtrak.[25] Volpe's plan was a modification of an earlier scheme called "Railpax." The modified plan rejected nationalization, but combined the idea of a new corporation to operate rail passenger service with federal grants for new equipment. The modified Railpax bill passed the Senate on May 6, 1970 by a vote of 78 to 3.[26] Shortly after the Senate vote, the Penn Central Railroad filed for bankruptcy and petitioned to discontinue virtually all of its trains. This led the House to enact a Railpax bill with more funding than the Senate version, which it did by a unanimous voice vote on the motion of Commerce Committee Chairman Harley Staggers (D-WVA).[27] On the same afternoon, the Senate unanimously adopted a motion by Acting Majority Leader Robert Byrd (D-WVA) to adopt the House bill. Despite opposition from the Council of Economic Advisors and some members of the White House staff, President Richard M. Nixon signed the Rail Passenger Service Act of 1970 on October 30, 1970.[28]

B. *Summary of the Rail Passenger Service Act of 1970*

Section 101 of the Rail Passenger Service Act of 1970 sets forth the "Congressional Findings and Declaration of Purpose."[29] This section is

22. Thoms, *supra* note 9, at 35-37.
23. 1970 Act Leg. Hist., *supra* note 11, at 4736-4737.
24. 1970 Act Leg. Hist., *supra* note 11, at 4736.
25. Thoms, *supra* note 9, at 36-37.
26. Thoms, *supra* note 9, at 37.
27. Thoms, *supra* note 9, at 38.
28. There was a last minute snafu as the Council of Economic Advisors, the Office of Management and Budget and some high White House staff men counseled against the Corporation plan as a waste of money. Reportedly, this gave President Nixon some cause for hesitating before signing the bill, but Secretary Volpe and the lobbies which had supported the bill rallied another show of support and the President, facing Congressional elections, signed the bill on Friday, October 30, 1970.

Id. at 38.

29. Rail Passenger Service Act of 1970, Pub. L. No. 91-518, 84 Stat. 1327 (1970) [hereinafter cited as 1970 Act].

particularly important to the present inquiry because in it Congress explained the purpose for creating Amtrak and specified the benefits Congress expected to gain from it. The overriding purpose of the original findings section was clearly to preserve rail passenger service from extinction.[30] Congress declared that rail passenger service was a "necessary part of a balanced transportation system," and that such service was required for public convenience and necessity. Congress declared that "the traveler in America should to the maximum extent feasible have freedom to choose the mode of travel most convenient to his needs." Congress also expressly recognized a further benefit: "rail passenger service can help to end the congestion on our highways and the overcrowding of airways and airports." Although this section would be repeatedly amended, the original objectives (preserve the service, give the traveler freedom of choice, and alleviate highway and airport congestion) have remained the fundamental objectives for Amtrak.

Pursuant to these findings, Section 201 of the 1970 Act directed the Secretary of Transportation to design a route system for intercity passenger trains, and to recommend the quantity and type of service.[31] Intercity passenger service was initially defined to exclude both commuter service and auto-ferry service.[32]

Sec. 101. Congressional Findings and Declaration of Purpose. The Congress finds that modern, efficient, intercity railroad passenger service is a necessary part of a balanced transportation system; that the public convenience and necessity require the continuance and improvement of such service to provide fast and comfortable transportation between crowded urban areas and in other areas of the country; that rail passenger service can help to end the congestion on our highways and the overcrowding of airways and airports; that the traveler in America should to the maximum extent feasible have freedom to choose the mode of travel most convenient to his needs; that to achieve these goals requires the designation of a basic national rail passenger system and the establishment of a rail passenger corporation for the purpose of providing modern, efficient, intercity rail passenger service; that Federal financial assistance as well as investment capital from the private sector of the economy is needed for this purpose; and that interim emergency Federal financial assistance to certain railroads may be necessary to permit the orderly transfer of railroad passenger service to a railroad passenger corporation.

See generally, Harbeson, *The Rail Passenger Service Act of 1970,* 38 I.C.C. PRAC. J. 330 (1971).

30. The basic purpose of this bill is to prevent the complete abandonment of intercity rail passenger service and to preserve a minimum of such service along specific corridors. . . . The overriding purpose of this legislation is to preserve and promote intercity rail passenger service and it is neither a duplication of, nor a substitute for, any other program (private or Federal) directed toward the urgently needed solutions of surface transportation problems.

1970 ACT LEG. HIST., *supra* note 11, at 4735.

31. 1970 Act, *supra* note 29, § 201.

32. 1970 Act, *supra* note 29, § 301. This section provides in full:

There is authorized to be created a National Railroad Passenger Corporation. The Corporation shall be a for profit corporation, the purpose of which shall be to provide intercity rail passenger service, employing innovative operating and marketing concepts so as to fully develop the potential of modern rail service in meeting the Nation's intercity

Section 301 of the 1970 Act created the "National Railroad Passenger Corporation."[33] The purpose of the Corporation was to "provide intercity rail passenger service, employing innovative operating and marketing concepts so as to fully develop the potential of modern rail service in meeting the Nation's intercity passenger transportation requirements."[34] Rejecting nationalization, the 1970 Act provided that "[t]he Corporation will not be an agency or establishment of the United States Government."[35] Rather, the NRPC was to be a private corporation subject to the District of Columbia Business Corporation Act and the provisions of the 1970 Act itself. As a private corporation, the NRPC was subject to its Board of Directors, which consisted of both public and private members.[36]

Title IV of the 1970 Act provided that the NRPC would assume the responsibility for rail passenger service from the private railroads,[37] thus superseding the operating authority previously granted by the Interstate Commerce Commission. The NRPC was directed to offer contracts to railroads to relieve them of their passenger service, in return for a payment to the NRPC based on each railroad's 1969 passenger service deficit.[38] The NRPC could then contract with the railroads to provide the much-reduced "Basic System" of service designated by the Secretary of Transportation. The NRPC was directed to begin operation of the Basic System on May 1, 1971,[39] and was obliged to continue operating those trains until July 1, 1973.[40] The NRPC also had the right to add other trains if this was consistent with prudent management.[41] If operated for two years, such trains would become part of the Basic System. State, regional, or local agencies could request the NRPC to provide service if the requesting agency agreed to pay 66.6 percent of the losses associated with this service.[42] Private railroads which chose not to contract with the

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passenger transportation requirements. The Corporation will not be an agency or establishment of the United States Government. It shall be subject to the provisions of this Act and, to the extent consistent with this Act, to the District of Columbia Business Corporation Act. The right to repeal, alter, or amend this Act at any time is expressly reserved.

33. *Id.*

34. *Id.*

35. *Id.*

36. 1970 Act, *supra* note 29, § 303.

37. 1970 Act, *supra* note 29, § 401. This section provides: "(a)(l) On or before May 1, 1971, the Corporation is authorized to contract and, upon written request therefor from a railroad, shall tender a contract to relieve the railroad, from and after May 1, 1971, of its entire responsibility for the provision of intercity rail passenger service."

38. 1970 Act, *supra* note 29, § 401(a)(2).

39. 1970 Act, *supra* note 29, § 401(b).

40. 1970 Act, *supra* note 29, § 404(b)(1).

41. 1970 Act, *supra* note 29, § 403(a).

42. 1970 Act, *supra* note 29, §§ 403(b)-403(c).

NRPC were prohibited from discontinuing their trains until January 1, 1975.[43]

The NRPC's financing plan was based on the payments by the railroads mentioned above, the sale of stock, a $40 million direct federal grant, and federal loan guarantees. Common stock could be issued only to railroads.[44] Railroads could pay for common stock in cash, equipment, or future services.[45] Railroads which did not buy stock but which contributed equipment were allowed a tax deduction.[46]

The 1970 Act authorized a direct federal grant of $40 million to the Secretary of Transportation for start-up expenses.[47] The 1970 Act also authorized loan guarantees of $100 million for the NRPC to acquire new equipment and to improve facilities,[48] and further loan guarantees of $200 million to railroads to enable them to perform their service contracts with the NRPC.[49]

Finally, the 1970 Act required railroads and the NRPC to ensure "fair and equitable" arrangements to protect employees affected by service discontinuances.[50] Contracts were required to protect individual employees from a worsening of their positions with respect to their employment.[51] The statute required the Secretary of Labor to certify that all contracts between the NRPC and the railroads had given employees fair and equitable protection.[52] The 1970 Act also required that laborers and mechanics be paid at the rates prevailing in the locality as determined by

43. 1970 Act, *supra* note 29, § 404(a).
44. 1970 Act, *supra* note 29, § 304(a).
45. 1970 Act, *supra* note 29, § 304(a); § 401(a)(2).
46. 1970 Act, *supra* note 29, § 901.
47. 1970 Act, *supra* note 29, § 601.
48. 1970 Act, *supra* note 29, § 602.
49. 1970 Act, *supra* note 29, §§ 701 and 702.
50. 1970 Act, *supra* note 29, § 405(a).
51. 1970 Act, *supra* note 29, § 405(b). This section provides:

> Such protective arrangements shall include, without being limited to, such provisions as may be necessary for (1) the preservation of rights, privileges, and benefits (including continuation of pension rights and benefits) to such employees under existing collective-bargaining agreements or otherwise; (2) the continuation of collective bargaining rights; (3) the protection of such individual employees against a worsening of their positions with respect to their employment; (4) assurances of priority of reemployment of employees terminated or laid off; and (5) paid training or retraining programs. Such arrangements shall include provisions protecting individual employees against a worsening of their positions with respect to their employment which shall in no event provide benefits less than those established pursuant to section 5(2)(f) of the Interstate Commerce Act. Any contract entered into pursuant to the provisions of this title shall specify the terms and conditions of such protective arrangements. No contract under section 401(a)(1) of this Act between a railroad and the Corporation may be made unless the Secretary of Labor has certified to the Corporation that the labor protective provisions of such contract afford affected employees fair and equitable protection by the railroad.

52. *Id.*

the Secretary of Labor.[53] In addition, the NRPC was prohibited from contracting out work normally performed by bargaining unit employees if the contracting-out would result in layoffs of bargaining unit employees.[54]

B. AMTRAK IN OPERATION, 1971-1986

Amtrak's history can best be understood as divided into two periods.[55] During the first period, 1971-78, Amtrak expanded its route system, increased its services, and acquired new operating equipment. Federal expenditures rose dramatically. The second period, from 1978 to the present, has been characterized by Congressional demands for cost control. Routes and services have been cut back, and few new trains have been added. The most extreme examples of the latter tendency are the Reagan Administration's attempt to limit Amtrak to the Boston-Washington Northeast Corridor in 1981, to eliminate all funding for the system in 1985-87, and to sell the Northeast Corridor in 1987.

1. AMTRAK'S EARLY HISTORY, 1971-78

As directed by statute, the NRPC began operations on May 1, 1971.[56] The "Amtrak" nickname was adopted soon afterward.[57] The Basic System designed by the Secretary of Transportation was nationwide in scope.[58] In addition to routes through crowded urban areas, the Basic System preserved several long-haul routes in the western United States.[59] Many of the routes were continuations of trains from the private

53. 1970 Act, *supra* note 29, § 405(d).

54. 1970 Act, *supra* note 29, § 405(e).

55. *Cf.* Guess, *Profitability Guardians and Service Advocates: The Evolution of Amtrak Training,* 44 PUB. AD. REV. 384 (1984) (which divides Amtrak's history into three periods, 1971-78; 1979-80; and 1981-present).

56. *See* THOMS, *supra* note 11, at 1, 55; *see generally* H. Edmonson, *Journey to Amtrak* (1972).

57. The nickname is derived from *"Am* ericans *Tr* avel by *Tr* ack". Johnson, *Lessons from Amtrak and Conrail,* 49 I.C.C. PRAC. J. 247, 250 (1982); *see also* THOMS, *supra* note 11, at 51-52.

58. The system as initially proposed consisted of the following routes: New York-Boston; New York-Washington; New York-Buffalo; New York-Chicago; New York-Kansas City; New York-Miami/St. Petersburg/Tampa; New York-New Orleans; Washington-Chicago; Washington-St. Louis; Norfolk-Cincinnati; Chicago-St. Louis; Chicago-Miami/St. Petersburg/Tampa; Chicago-Los Angeles; Chicago-San Francisco; Chicago-Seattle; Chicago-Detroit; Chicago-Houston; Chicago-New Orleans; Chicago-Cincinnati; New Orleans-Los Angeles; Seattle-San Diego. THOMS, *supra* note 11, at 49-51.

59. It is questionable whether the national system foreseen by [Secretary of Transportation] Volpe came within the intent of Congress. David P. Morgan, editor of *Trains* magazine observed: 'Railpax [sic] is now committed to spreading its thin resources over thousands of miles of barren desert and lonely prairie-far from the 'clogged highways' and 'jammed airways' that were the agreed reasons for its creation.

THOMS, *supra* note 11, at 47 (footnote omitted).

railroad era, and some preserved the traditional train names. However, the immediate effect of Amtrak's assumption of service was to eliminate nearly half of the passenger trains then in service.[60] The discontinuation of one pair of trains led plaintiffs in Illinois to challenge the Rail Passenger Service Act of 1970 on constitutional grounds, but the federal district court refused to invalidate the statute.[61]

Amtrak began its task of revitalizing rail passenger service with salvaged remnants of the private railroad era. Passengers in the early years noticed few improvements. During 1973-74, the Special Subcommittee on Investigations of the House Committee on Interstate and Foreign Commerce undertook a series of inspection tours on twelve of Amtrak's long-haul passenger trains.[62] Their report was a catalogue of all-too familiar complaints: poor on-time performance,[63] unprofitable food and beverage service,[64] dilapidated stations and terminals,[65] irritations to passengers

60. On March 22, 1971, the NRPC made its final decisions, which can be summarized as follows: 184 trains were to operate, of which four would run tri-weekly, the rest daily. Such a system would serve 85 percent of our urban population. This is a reduction of over 50 percent in the number of trains operating in October 1970-April 1971.

THOMS, *supra* note 11, at 48.

61. Quincy College and Seminary Corp. v. Burlington Northern, Inc., 328 F. Supp. 808 (N.D. Ill. 1971); THOMS, *supra* note 11, at 55.

62. HOUSE COMM. ON INTERSTATE AND FOREIGN COMMERCE, SPECIAL SUBCOMM. ON INVESTIGATIONS, 93rd Cong., 2d Session, REVIEW OF AMTRAK OPERATIONS—CONDITION OF AMTRAK TRAINS, (Subcomm. Print 1974) [hereinafter cited as 1974 SUBCOMMITTEE INVESTIGATION].

63. It is generally recognized that an essential element to Amtrak's maintaining good passenger relations is for the trains to arrive on time with a reasonable degree of regularity. In this regard, Amtrak reported that 'on-time performance' was the second most frequent category of criticism received from passengers (air conditioning and heating being the most frequent). Amtrak's poor on-time performance has tended to discourage public confidence in the reliability of passenger trains and consequently, potential riders have chosen other means of transportation. . . . The on-time performance for every train included in this review was considerably worse during calendar year 1973 than during 1972.

Id. at 5-6.

64. Food and beverage service on board Amtrak trains is extremely unprofitable. . . . [S]ince its inception, Amtrak has not attempted to make this service profitable. Amtrak officials explained that it would take considerable time before all equipment and services could be improved to the extent passengers deserved but that food and beverage services could be made attractive in a relatively short period. It was therefore decided that the food and beverage service could be a harbinger of the refurbishment program as a highly visible improvement of substantial importance to many passengers. . . . Amtrak operating expenses amounted to $33.3 million. Based on the above study in which operating expenses were over three times the revenue collected, the total Amtrak expense probably resulted in a deficit of over $22 million not considering the other related costs mentioned above.

Id. at 10-11.

65. Many stations, aside from obvious antiquity, are dimly lit, sorely in need of cleaning and paint, inhabited by derelicts, and provide few if any facilities such as food service, newsstands, travelers aid booth, barbershops, gift shops, etc. . . . The facilities in the Los Angeles station, for example, which is pictured in Amtrak's brochure with the caption 'Beautiful Union Station, Los Angeles' are limited to four food and drink and two newspaper vending machines. The Pittsburgh station has no facilities. The Miami sta-

from pets on board and smoking,[66] slow and inaccurate ticketing and reservations,[67] and rude and unhelpful railroad personnel.[68] Amtrak faced three major problems which will be considered in some detail: the condition of its operating equipment and right-of-way; the contract system with the private railroads; and the politicization of the route system.

A. *Operating the Equipment and Right-of-Way*

The locomotives and passenger cars which Amtrak received in 1971 (sometimes called "the heritage fleet") averaged twenty-one years in age.[69] Much of this equipment was in poor condition because of age and deferred maintenance, which caused operating delays, increased costs,

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tion has one cold drink vending machine and the Minneapolis station has one cold and one hot drink vending machine. (The hot drink machine was not operable on the day this review was conducted.)

Id. at 14.

66. Amtrak issued a policy in April 1973 permitting passengers in private rooms and coaches to take one pet into their accommodations, 'provided that the pet is not objectionable in any way. . . .' Train personnel have considerable difficulty enforcing this policy. . . . Also, many passengers bring dogs into private rooms without containers, leashes, or muzzles. In addition, there are instances where dogs, cats, and birds were properly restrained when placed on board but released in the rooms. One review of maintenance and repair of passenger cars disclosed a number of instances where pets had torn curtains and upholstery and severely soiled carpeting and upholstery—some so badly that complete replacement was necessary. In addition, reportedly there have been instances where private rooms have become completely uninhabitable and had to be sealed during a trip after a passenger detrained.

Id. at 18.

67. A passenger boarding the train [the "Broadway Limited"—New York and Washington to Chicago] in Washington . . . attempted to transfer from coach to roomette accommodations. The conductor had a manifest indicating that less than 50 percent of the roomettes were reserved. However, he informed the passenger that a transfer could not be effected because he had no assurance that the manifest was accurate. Consequently, the passenger remained in the coach for the entire trip whereas ironically roomettes remained available throughout the entire trip.

Id. at 44-45.

68. The crew on this train [the "Empire Builder" (Seattle-Chicago)] are railroad employees. The attitude and general helpfulness of these employees were poor and confirmed the necessity for Amtrak to expedite its program of assuming control of train service personnel. For example, the attendant in the lounge car was not on duty for several extended periods. On three occasions during the trip, the attendant was present but was observed to be sound asleep. Moreover, he expressed displeasure when awakened by passengers desiring to make purchases.

Id. at 54.

69. THOMS, *supra* note 11, at 59; NATIONAL RAILROAD PASSENGER ANNUAL REPORT 1975, 22 (1976) [hereinafter cited as AMTRAK ANNUAL REPORT 1975]; GEN. ACCOUNTING OFFICE, QUALITY OF AMTRAK RAIL PASSENGER SERVICE STILL HAMPERED BY INADEQUATE MAINTENANCE OF EQUIPMENT 1 (1976); MULVEY, *supra* note 7, at 32. Amtrak's ability to provide service has been severely limited by the size of its operating fleet. Congressional investigators have found that as the frequency of service over a route is increased (affording more convenient arrival and departure options), ridership often increases exponentially. 1979 ACT LEG. HIST., *supra* note 5, at 1206.

When compared with other national passenger rail systems, the limited size of Amtrak's operating fleet is apparent.

and discouraged passengers. Sometimes the delays caused by equipment failures led to further costs, as Amtrak was obliged to pay overtime to employees and maintenance personnel,[70] and to placate irate customers with free meals and overnight accommodations.[71]

The poor condition of railroad rights-of-way has been a problem throughout Amtrak's history. In order to win passengers from competing modes of transportation, passenger trains must operate at reasonably high speeds. High-speed rail service requires a higher standard of track quality than freight service, which is operated at lower speeds.[72] The pri-

Fleet Comparisons (1977)

Railroad	Route Length	Passenger Cars
British Rail	11,258	17,463
French National Railways	22,478	15,320
German Federal Railways	17,910	17,726
Italian State Railways	10,154	10,544
Japanese National Railways	13,218	26,099
South African Railways	13,966	9,734
Amtrak (1977)	26,000	1,678
Amtrak (1986)	24,000	1,664

Sources: 1979 ACT LEG. HIST. at 1206; Amtrak 1977 data; NATIONAL RAILROAD PASSENGER CORPORATION ANNUAL REPORT 1978, 28 (1979) [hereinafter cited as AMTRAK, ANNUAL REPORT 1978]; Amtrak 1986 data: NATIONAL RAILROAD PASSENGER CORPORATION ANNUAL REPORT 1986, 23 (1987) [hereinafter cited as AMTRAK, ANNUAL REPORT 1986].

70. There are several ways in which a delayed train can affect the efficiency and wages of maintenance personnel. For example, it was noted during this review that when the 'Sunset Limited' [New Orleans to Los Angeles] is late, there is a considerable disruption to the work schedule of the maintenance personnel. This train should arrive in the yard for servicing at about 8:00 am. As this is the only train in the yard at that time, when it is delayed the work force of about 30 cleaners and 100 skilled and semi-skilled laborers cannot be productively employed. Large numbers of laborers were observed on several occasions completely idle for two and three hour periods. Moreover, these same employees were required to work overtime on many of these same occasions because it was necessary to service the 'Sunset Limited' and other trains later in the day so that they could depart on time.

Similarly, the servicing crew at the St. Louis Terminal is frequently required to work overtime because of the late arrival of the 'National Limited' [Washington to Kansas City]. This train is scheduled to depart eastward 15 minutes before a change in service crews. If the train is more than 15 minutes late the first crew must remain on duty at overtime rates to service the train because the second crew is not available due to being needed to service other trains scheduled to depart northward shortly after they come on duty.

1974 SUBCOMMITTEE INVESTIGATION, *supra* note 62, at 8.

71. An estimate cannot be made as to the costs incurred by Amtrak due to train delays. . . . Amtrak does, however, maintain an account entitled 'Accommodations, other transportation, and miscellaneous emergency services provided for inconvenience passengers'. Almost $250,000 was charged to this account during the first 10 months of 1973.

Id. at 9.

72. Salisbury, *Amtrak: An Experiment* 10 A.B.A. Brief 4 at 5 (1981); S. REP. No. 677, 96th Cong., 2d. Sess. 1, *reprinted in* 1980 U.S. CODE CONG. & AD. NEWS 1165, 1181.

vate railroads had no incentive to keep their tracks in condition to run high-speed passenger service. But although freight railroads could tolerate slow-speed track quality, Amtrak could not. Poor track quality in some areas continues to require Amtrak trains to operate at reduced speeds. An ironic result of Amtrak's entry into operation was that initially, train on-time performance actually fell because track maintenance projects had to be instituted to bring the right-of-way up to standard for passenger service, and the maintenance work created delays.[73]

B. AMTRAK'S CONTACTS WITH THE RAILROADS

From 1971 until 1976, Amtrak owned no track and operated no trains directly. Instead, it relied on contract service with the private railroads. Studies by the General Accounting Office in the mid-1970s focused on Amtrak's contractual relationships with the private railroads and found them unsatisfactory.[74] The first contracts, negotiated in 1971, did not create incentives for high-quality service and merely reimbursed the railroads for the costs incurred. As a result, railroads "were paid as much for poor service as for excellent," and costs were not controlled.[75]

In 1974, Amtrak negotiated a second series of contracts which provided for incentives for good performance and penalties for poor performance.[76] However, General Accounting Office reported that by June 30, 1976, Amtrak had paid the railroads $33.6 million in incentives for on-time performance, but that actual on-time performance had not improved.[77] Rather, the General Accounting Office claimed that Amtrak liberalized the criteria for on-time performance.[78]

After 1976, Amtrak negotiated a third group of contracts with 14 of the 20 operating railroads. Nevertheless, the General Accounting Office reported that Amtrak was not able to obtain railroad consent to contracts which encouraged better on-time performance.[79]

C. GROWTH AND POLITICIZATION OF THE ROUTE SYSTEM

The Amtrak Improvement Act of 1973[80] began the expansion of the

73. 1974 SUBCOMMITTEE INVESTIGATION, *supra* note 62, at 6.

74. GEN. ACCTING. OFFICE, AMTRAK'S INCENTIVE CONTRACTS WITH RAILROADS—CONSIDERABLE COST, FEW BENEFITS (June 8, 1977); GEN. ACCTING. OFFICE, FURTHER IMPROVEMENTS ARE NEEDED IN AMTRAK'S PASSENGER SERVICE CONTRACTS, BUT THEY WON'T COME EASILY (Jan. 7, 1981).

75. GEN. ACCTING. OFFICE, AMTRAK'S INCENTIVE CONTRACTS WITH RAILROADS—CONSIDERABLE COST, FEW BENEFITS, *supra* note 74, at i.

76. *Id.*

77. *Id.* at ii.

78. *Id.* at ii-iii.

79. GEN. ACCTING. OFFICE, FURTHER IMPROVEMENTS ARE NEEDED, *supra* note 74, at iii.

80. Amtrak Improvement Act of 1973, Pub. L. No. 93-146, 87 Stat. 548 (1973) [hereinafter cited as 1973 Act].

Amtrak route system. The 1973 Act directed the NRPC to initiate at least one experimental route each year.[81] Each new route was to be operated for two years, after which the route would be added to the Basic System or terminated. The 1973 Act also called for international service to link the Basic System with Montreal and Vancouver in Canada and Nuevo Laredo in Mexico.[82] Route mileage grew from 22,000 miles in 1973 to 27,000 miles in 1979.[83] At its greatest expansion in 1979, the Amtrak system served 571 station stops, up from 440 in 1972.[84]

Much criticism has been directed at Amtrak because the route system has allegedly been distorted to satisfy the demands of influential politicians.[85] Because Amtrak was freed from the regulatory burden under which the private railroads had operated, Amtrak had greater flexibility in initiating new services. This flexibility allegedly permitted political interference in route and service decisions.[86] "Political trains" allegedly operated without regard to the costs incurred or the ridership generated.[87] One observer claimed that "[p]rofit goals became secondary to securing

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81. Section 403 of the Rail Passenger Service Act of 1970 (45 U.S.C. 563), relating to new service, is amended by adding at the end thereof the following new subsection: (d). The Corporation shall initiate not less than one experimental route each year, such route to be designated by the Secretary [of Transportation] and shall operate such route for not less than two years. After such two-year period, the Secretary shall terminate such route if he finds that it has attracted insufficient patronage to serve the public convenience and necessity, or he may designate such route as a part of the Basic System.

1973 Act, *supra* note 80, § 11(a).

82. 1973 Act, *supra* note 80, § 6(e)(7).

83. Guess, *Profitability Guardians and Service Advocates: The Evolution of Amtrak Training, supra* note 55, at 388, gives the figures 23,000 miles in 1972 compared with 26,000 miles in 1977; Amtrak annual reports give the figures 22,000 in 1973 compared with 27,000 in 1979. AMTRAK, ANNUAL REPORT 1975 (1976) at 22; NATIONAL RAILROAD PASSENGER CORPORATION ANNUAL REPORT 1981, 29 (1982) [hereinafter cited as AMTRAK, ANNUAL REPORT 1981].

84. AMTRAK, ANNUAL REPORT 1975 at 22; AMTRAK ANNUAL, REPORT 1981 at 29.

85. "Amtrak, as a creature of legislation, is very sensitive to political pressures. To survive politically, it must serve as many geographic areas of the country as possible. Instead of concentrating efforts on high-speed service in the densely populated areas, Congress drew the routes to cover as much ground as possible." Note, *Amtrak's Legislative Mandate: A Time for Rethinking* 8 J. LEGIS. 334, 337 (1981).

86. Because there were no objective guidelines for performance measurement of existing or proposed routes, the Corporation was forced to make decisions on starting new routes based on congressional support, and intense political jockeying accompanied each new funding request. Without definite performance criteria, the Corporation could be forced into continuing an unprofitable service in return for political support of its annual funding request. Management's susceptibility to these political considerations hampered its ability to make sound economic decisions on route structure and equipment allocation.

Salisbury, *Amtrak: An Experiment,* 10 A.B.A. Brief 4 at 6 (1981).

87. Note, *Amtrak's Legislative Mandate: A Time for Rethinking,* 8 J. LEGIS. 334 (1981) at 337; Transportation Association, *Amtrak—The Benefits and the Problems?* (1977), n.p.; Johnson, *Lessons from Amtrak and Conrail,* 49 I.C.C. PRAC. J. 247, 253 (1982).

'friends' in Congress."[88] Legislation was eventually enacted to establish economic standards for train discontinuances to eliminate unprofitable but politically-sensitive trains.[89]

D. TRANSITION OF THE SYSTEM, 1974-78

During the middle 1970s, three developments took place which affected Amtrak's future: the introduction of new equipment beginning in 1975; the "Northeast Corridor Improvement Project"; and the "energy crisis" of 1973-74 and 1978-79.

The arrival of the first modern operating equipment in 1975[90] had a major impact on Amtrak's operations. The equipment received from the private railroads in 1971 suffered from frequent breakdowns, required large amounts of maintenance time, and was unappealing to the traveling public. Moreover, this equipment was designed for another era, in which fuel costs and energy conservation were not primary design criteria. The "heritage cars" were steel-bodied, heavy-weight equipment designed to provide a smooth ride and maximum comfort for long-distance travel.[91] Such equipment consumed large amounts of energy in operation.

By contrast, the new equipment was designed for current operating and economic conditions. The "Amfleet" passenger cars were lightweight aluminum day coaches which featured reclining seats mounted on tracks in the floor so that the accommodations could be changed for dif-

88. Johnson, *Lessons from Amtrak and Contrail, supra* note 87, at 253.

89. Amtrak Improvement Act of 1981, Pub. L. No. 97-35, 95 Stat. 687 (1981) [hereinafter cited as 1981 Act]. § 1182(a) provided that all route additions would have to satisfy standardized "Route and Service Criteria"; § 1183(b)(4)(B) required Amtrak to review each route in the Basic System annually and discontinue, modify, or adjust the service to meet the applicable criteria.

90. Amtrak accepted delivery of 115 "Amfleet" passenger cars from the Budd Company in 1975. The order consisted of 91 coaches, 11 cafe cars, and 13 club cars which were patterned after "Metroliner" equipment developed by the Department of Transportation and the Penn Central Railroad. AMTRAK, ANNUAL REPORT 1975 at 16. *See also* P. DORIN, AMTRAK TRAINS AND TRAVEL 17-18 (1979) [hereinafter cited as DORIN].

91. At this time [September, 1971], Amtrak exercised its option to purchase the best 1190 available intercity cars and leased 12 new Metroliners originally scheduled for a Philadelphia-Harrisburg schedule. Most of the cars came from Western railroads, where maintenance and service was superior, and were quickly shifted to Eastern runs, where most of the passengers—and the deferred maintenance—were located. 441 came from Santa Fe, 196 from Burlington Northern, 120 from Union Pacific, 80 from Southern Pacific, 276 from Seaboard Coast Line, 25 from Louisville & Nashville, 19 from Richmond, Fredericksburg & Potomac, 16 from Norfolk & Western, 11 from Chesapeake & Ohio and 6 from Baltimore & Ohio. . . . The cars cost an average of $14,000 apiece, which sounds like a good deal until you realize that they were built anywhere between 1937 and 1965. . . . Not only did the railroads have no other buyer, but they stopped servicing and maintaining the cars as soon as the Amtrak Act was passed, and Amtrak has an unduly high percentage of bad-order cars on its hands.

THOMS, *supra* note 9, at 59.

ferent kinds of services.[92] The new cars were designed for "head end power," meaning that their heat, light, and power were generated electrically by the locomotive, replacing the traditional steam heat systems on older cars which were unreliable.[93] New electric locomotives were developed for service on the Northeast Corridor, and new diesel locomotives were developed for service on the non-electrified portions of the system. For use in the western United States, where tunnel clearances permitted taller cars, Amtrak introduced double-level "Superliner" cars in 1978.[94] The arrival of new equipment addressed numerous problems. The new equipment was more appealing to the public. It permitted reductions in maintenance costs, was less subject to breakdowns, and was more energy efficient, partially offsetting rising fuel costs.

The second major development was Amtrak's acquisition of the Northeast Corridor Boston-Washington main line and several branch lines under the Railroad Regulatory Reform and Revitalization Act of 1976.[95] Amtrak was given ownership of the line, which formerly belonged to the bankrupt Penn Central and New Haven railroads. For the first time in its history, Amtrak owned right-of-way and was able to provide service directly instead of through contracting railroads.[96] The 4-R Act also called for the improvement of the right-of-way, establishing the "Northeast Corridor Improvement Project."[97] The 4-R Act required reduction of trip times to 2 hours, 40 minutes from Washington to New York and 3 hours, 40 minutes from New York to Boston. The planned improvements consisted of replacing the track with continuous welded rail ("ribbon rail") set into concrete ties; elimination of road crossings; straightening and banking curves; modernization of signal systems; replacement of the electrical lines from Washington to New Haven; and extension of electrified service from New Haven to Boston.[98] The work was to be completed by 1980, but the deadline was later extended to 1985.[99]

The third major development affecting Amtrak's history was the "en-

92. AMTRAK, ANNUAL REPORT 1975 at 16; DORIN, *supra* note 90, at 25.

93. DORIN, *supra* note 90, at 25-27.

94. AMTRAK, ANNUAL REPORT 1978 at 14.

95. Railroad Revitalization and Regulatory Reform Act of 1976, Pub. L. No. 94-210, 90 Stat. 31 (1976), *amended by* 45 U.S.C. § 851(a)(1982) [hereinafter cited as 4-R Act].

96. From the Penn Central, Amtrak acquired its 456 mile line from Washington to Boston, plus branches of 62 miles from New Haven, Conn., to Springfield, Mass., and 103 miles from Philadelphia to Harrisburg—a total of 621 miles of route ranging from two to six tracks. The corporation also acquired track from Michigan City, Indiana to Kalamazoo, Michigan.

Note, *Amtrak's Legislative Mandate: A Time for Rethinking* 8 J. LEGIS. 334, 341 n.35 (1981).

97. 4-R Act, *supra* note 95, § 853.

98. Armstrong, *NECIP: A Monster Tamed,* RAILWAY AGE, January 1986, at 51-52.

99. Rock Island Railroad Transition and Employee Assistance Act, Pub. L. No. 96-254, 94 Stat. 399 (1980); *see* Note, *supra* note 96, at 345.

ergy crisis" of the 1970s.[100] Political developments in the Middle East (the Arab oil embargo of 1973-74 and the Iranian Revolution of 1978-79) led to interruptions of oil supplies and rising fuel prices in the United States. Public use of gasoline for automobile travel was restricted, and the federal government advised the public to conserve energy, in particular by using public transportation. Amtrak's ridership increased during both oil shortages, jumping from 16.9 million in 1973 to 18.2 million in 1974, before falling back to 17.4 million in 1975.[101] Similarly, during the Iranian crisis, ridership rose from 18.9 million in 1978 to 21.4 million in 1979, before gradually falling.[102] Amtrak's experience in the oil shortages created the perception that rail passenger service should be maintained because it is energy efficient, and because it can be used as an alternative form of transportation during emergencies. This perception affected Congressional thinking in subsequent Amtrak legislation.

2. *Amtrak's Later History, 1978-present*

The Amtrak Improvement Act of 1978[103] represented a turning point in Congressional policy. It began a trend which has stressed cost reduction and improved economic performance at the expense of continued expansion.[104] The 1978 Act directed the Secretary of Transportation to re-examine the route system to eliminate underused services.[105] In 1979, when the Secretary's review was completed, several long-haul trains

100. On January 6, 1974, the United States adopted daylight savings time in mid-winter to save energy during the Arab oil embargo. B. Goldberg, Amtrak: The First Decade 8 (1981). *See also,* H.R. Rep. No. 189, 96th Cong., 2d Sess., 19, *reprinted in* 1979 U.S. Code Cong. & Ad. News, 1198, 1199.

101. Amtrak, Annual Report 1975 22 (1976).

102. Amtrak, Annual Report 1981 29 (1982).

103. Amtrak Improvement Act of 1978, Pub. L. No. 95-421. 92 Stat. 923 (1978) [hereinafter cited as 1978 Act].

104. *See* Guess, *supra* note 55, at 390: "Under growing attack from the thrust of the CBO [Congressional Budget Office] and GAO [General Accounting Office] analyses, which aided profitability guardians in FRA [Federal Railroad Administration], the balance began to shift toward the profitability pole".

105. 1978 Act, *supra* note 103, § 4(a): The Secretary of Transportation [hereinafter in this section referred to as the Secretary], in cooperation with the National Railroad Passenger Corporation [hereinafter in this section referred to as the Corporation], shall immediately develop preliminary recommendations for a route system for the Corporation which will provide and [sic] optimal intercity railroad passenger system, based upon current and future market and population requirements, including where appropriate portions of the Corporation's existing route system. In developing such recommendations, the Secretary shall consider—

(1) any unique characteristics and advantages of rail service as compared to other modes of transportation;

(2) the role that rail passenger service can play in helping meet the Nation's transportation needs while furthering national energy conservation efforts;

(3) the relationship of benefits of given intercity rail passenger services to the costs of providing such services, computing the benefits in passenger per train mile

were discontinued.[106] Recognizing that Amtrak was unlikely to make a profit, Congress redesignated the NRPC from a "for profit corporation" to a corporation "operated and managed as a for profit corporation."[107] Reflecting concerns that Amtrak was having a harmful effect on the intercity bus industry, the 1978 Act conferred jurisdiction on the Interstate Commerce Commission to hear complaints from bus companies that Amtrak had engaged in predatory pricing,[108] and called for a study of Amtrak's increasing effect on the intercity bus industry.[109]

The 1979 Amtrak Reorganization Act[110] continued the trend toward cost control and increased standards for performance. The 1979 Act imposed specific goals for Amtrak's management, requiring improved service and economic performance.[111] The 1979 Act also directed the

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and revenues earned and computing the costs in loss of profit per passenger mile rather than total loss or profit per route;

(4) the transportation needs of areas lacking adequate alternative forms of transportation;

(5) frequency and fare structure alternatives and the impact of such alternatives on ridership, revenues, and expenses of rail passenger service; and

(6) the adequacy of other transportation modes serving the same points to be served by the recommended route system.

106. B. GOLDBERG, AMTRAK: THE FIRST DECADE 13 (1981). The trains eliminated included: the "Champion" (New York-St. Petersburg), the "Floridian" (Chicago-Miami), the "National Limited" (New York-Kansas City), the "North Coast Hiawatha" (Chicago-Seattle via southern route through Montana), the "Hilltopper" (Virginia-Boston), and the "Lone Star" (Chicago-Houston).

107. 1978 Act, *supra* note 103, § 11.

108. Notwithstanding the provisions of section 306 of the Rail Passenger Service Act (45 U.S.C. 546), the Interstate Commerce Commission shall have, upon the application of any aggrieved motor carrier, jurisdiction under any applicable provision of part 1 of the Interstate Commerce Act over any rate, fare, charge, or marketing practice of the National Railroad Passenger Corporation with respect to any route or service which operates at a loss for the purpose of hearing the complaint over unfair or predatory practice. *Id.* at § 7.

109. *Id.* at § 6.

110. Amtrak Reorganization Act of 1979, Pub. L. No. 96-73, 93 Stat. 537 (Sept. 29, 1979) [hereinafter cited as 1979 Act].

111. SEC. 102 GOALS. THE CONGRESS HEREBY ESTABLISHES THE FOLLOWING GOALS FOR AMTRAK:

(1) Improvement of on-time performance by at least 50 percent within the three year period beginning on the date of enactment of this section;

(2) Implementation of schedules which provide a systemwide average speed of at least 50 miles per hour, and which can be adhered to with a degree of reliability and passenger comfort;

(3) Improvement of the ratio of revenues to operating expenses, with the goal of coverage of at least 44 percent of operating expenses, excluding depreciation, from revenues by the end of Fiscal Year 1982 and 50 percent by the end of Fiscal 1985;

(4) Improvement of the feasibility of State-subsidized service through the use of technical assistance panels to coordinate, plan, and implement such service;

(5) Encouragement of rail carriers to assist in improving intercity rail passenger service; and

(6) General improvement of Amtrak's performance through comprehensive, systematic operation programs and employee incentives.

1979 Act, *supra* note 110, § 102.

General Accounting Office to study ways to eliminate Amtrak's increasing debt to the federal government.[112] At the same time, however, Congress recognized that Amtrak could contribute to energy conservation by providing energy-efficient passenger transportation and by serving as an alternative system of transportation for use in emergencies.[113]

The election of Ronald Reagan as President and the Republican takeover of the Senate in 1980 accelerated the trend toward fiscal conservatism. The new Administration was openly hostile to Amtrak. David A. Stockman, a Representative from Michigan who had opposed Amtrak funding, became Director of the Office of Management and Budget.[114] Reagan's first Secretary of Transportation was Drew Lewis, also an Amtrak critic.[115]

In 1981, the Reagan Administration proposed to reduce Amtrak's budget to a level which would permit operations on the Northeast Corridor only.[116] This proposal generated a national political outcry. Governors and senators from several western states lobbied hard to preserve long-haul trains such as the Chicago-Seattle "Empire Builder" and the Chi-

112. *Id.* at § 129; GEN. ACCTING. OFFICE, ALTERNATIVES FOR ELIMINATING AMTRAK'S DEBT TO THE GOVERNMENT (March 28, 1980).

113. Congress amended the findings section to read: "[A]nd that rail passenger service offers significant benefits in public transportation for the safe movement of passengers with minimum energy expenditure and represents a significant national transportation asset in time of national emergency or energy shortage." *Id.* at § 102.

114. David A. Stockman was one of several Representatives who joined in a "Minority Report" to the Amtrak Improvement Act of 1978. The essence of this report is reflected in the following paragraph: Unfortunately, this bill seems determined to simply throw more money at Amtrak as it rolls to what appears to be a disastrous destination. The time has come to vote against this bill or any other legislation which prolongs the life of Amtrak for the following reasons:

1. Amtrak has failed;
2. Amtrak costs the taxpayers too much;
3. Amtrak provides no public benefit;
4. The freeze in this particular bill guarantees another 18 months of extravagant waste; and
5. The bill in effect prohibits even the Secretary of Transportation from taking off a single Amtrak train, now or in the future.

Minority Views on H.R. 11493, Amtrak Authorization Extension of Messrs. Devine, Brown of Ohio, Collins of Texas, and Stockman. H.R. REP. NO. 1182 (Interstate and Foreign Commerce Committee), 95th Cong., 2d Sess. 26, *reprinted in* 1978 U.S. CODE CONG. & AD. NEWS, 2313, 2324 [hereinafter cited as 1978 ACT LEG. HIST.].

115. Transportation Secretary Drew Lewis, who has spoken out strongly in favor of slashing Amtrak operations has become a new interim member of the National Railroad Passenger Corporation's 13 member board, with six other officials of the Department of Transportation. . . . Mr. Lewis has said that long-distance trains are unnecessary and a 'rip-off' of the taxpayer. N.Y. Times, Sept. 15, 1981, at A24, col. 3.

116. *See* AMTRAK, ANNUAL REPORT 1981 at 3: "Unfortunately, 1981 saw the company endure the most severe conflict in our decade-long existence. Proposed federal budget reductions threatened an overnight shrinking of the national, intercity passenger rail system to a Northeast-only operation."

cago-San Francisco "California Zephyr."[117] Despite Administration pressure to reduce Amtrak's funding to $600 million, Congress kept the authorization at $735 million for 1982.[118] By June 21, 1982, a year after the confrontation began, Business Week magazine concluded that "unexpected public support for long-distance passenger trains, combined with the clout of powerful legislators, preserved all but two short routes."[119]

The Amtrak Improvement Act of 1981[120] reflected a compromise between advocates of preserving the system and those who sought to eliminate it. Congress again amended the "findings" section of the Rail Passenger Service Act. Although Congress still found that the public convenience and necessity required rail passenger service, such service had to be "cost-efficient" and was required only "to the extent that the Corporation's budget allows."[121] The 1981 Act gave Amtrak additional economic and operational goals,[122] and called for the NRPC's best business

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117. Karr, *Derailed Cutbacks: As Congress Comes to the Rescue, Amtrak Envisions the Best Passenger Train Service in its History,* Wall St. J., June 25, 1981 at 50, col. 1.

118. 1981 Act, *supra* note 89, at § 1185. Funding levels of $735,000,000 for Fiscal Year 1981 and $788,000,000 for Fiscal Year 1982 were authorized.

119. *Amtrak Gets on the Right Track,* Bus. Week 99 (June 21, 1982).

120. 1981 Act, *supra* note 89; *see* Guess, *supra* note 55, at 391.

121. Section 1171. Section 101 of the Rail Passenger Service Act (45 U.S.C. 501) is amended to read as follows:

> (a) The Congress finds that the public convenience and necessity require that the National Railroad Passenger Corporation provide, to the extent that the Corporation's budget allows, modern, cost-efficient and energy-efficient intercity railroad passenger service between the crowded urban areas and other parts of the country; that rail passenger service can help in alleviating the overcrowding of airways, airports and highways; and that to the maximum extent feasible travelers in America should have the freedom to choose the mode of transportation most convenient to their needs.

1981 Act, *supra* note 89, § 1171.

122. (1) Exercise of the Corporation's best business judgement in taking actions to minimize Federal subsidies, including increasing fares, increasing revenues on food service, improving its contracts with operating railroads, reducing management costs, and increasing employee productivity.

(2) Encouragement of State, regional, and local governments and the private sector to share the costs of operating rail passenger service, including the costs of operating stations and other facilities, in order to minimize federal subsidies.

(3) Improvement of the number of passenger miles generated systemwide per dollar of Federal funding by at least 30 percent within the two-year period beginning on the effective date of the Amtrak Improvement Act of 1981.

(4) Elimination of the deficit associated with food and beverage services by September 30, 1982.

(5) Implementation of strategies to achieve immediately maximum productivity and efficiency consistent with safe and efficient service.

(6) Operation of Amtrak trains, to the maximum extent feasible, to all station stops within 15 minutes of the time established in public timetables for such operation.

(7) Development of service on rail corridors subsidized by states or private parties or both. *Id.*, § 1172. This section also called for increased system-wide average speeds of 60 miles per hour; both intercity and commuter services; coordination among the various users on the corridor, and Amtrak's maximization of the use of its resources.

Id.

judgment to reduce the need for federal subsidies.[123]

Since the passage of the 1981 Act, Amtrak has undertaken concentrated efforts to reduce its costs,[124] evidently seeing economical operations and reduced federal subsidies as the key to survival. In 1981, Amtrak negotiated new contracts with its operating unions on the Northeast Corridor.[125] Railroads have traditionally suffered from high labor costs and low productivity because compensation is paid on a formula for distance traveled rather than for hours of work performed, and work-rules have perpetuated unproductive practices.[126] The 1981 contracts replaced the traditional system with hourly pay and time-and-a-half for overtime, with smaller pay increases, changes in work-rules, reductions in overhead, and incentives for on-time performance.[127] In 1986, Amtrak began directly hiring its train and engine crews outside the Northeast Corridor under similar contracts, for an estimated savings of $20-30 million per year.[128]

Amtrak has also undertaken measures to use its assets more productively to generate additional revenues.[129] These "revenue enhancement measures" have included: using Amtrak maintenance shops at Beech Grove, Indiana to manufacture subway cars for urban transit sys-

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123. *Id.* § 1172(2)(1).

124. *See* AMTRAK, ANNUAL REPORT 1981 at 14-16; NATIONAL RAILROAD PASSENGER CORPORATION ANNUAL REPORT 1983, 4-5, 9-10 (1984) [hereinafter cited as AMTRAK, ANNUAL REPORT 1983]; AMTRAK, ANNUAL REPORT 1984 3-7 (1985).

125. Ruben, *Organized Labor in 1981: A Shifting of Priorities*, 105 MONTHLY LAB. REV. 21, 24 (1982); *Amtrak Agreements Deviate from Pattern*, 105 MONTHLY LAB. REV. 54 (1982); *Claytor Charts a Course for Amtrak*, 184 RY. AGE 43, 44 (1983).

126. THOMS, *supra* note 9, at 2-3, described the system of work-rules in effect on most railroads: Faced with declining membership and what they believed to be management's disregard for safety in an industry in retrenchment, the operating unions have striven for as full employment as possible, although the average wage of a railway worker, compared to his counterpart in industry, is not overly great. Pay is based on a complex formula of miles and hours, which penalizes the junior brakeman on long, slow freights and work trains, and rewards the senior conductor on the passenger limited:

> This pay is based upon work rules that have been in force since 1919. For engine crews, the rule reads 'one hundred miles or less (straightaway or turnabout) . . . shall constitute a day's work; miles in excess of one hundred will be paid for at the mileage rate provided. For conductors and trainmen a day's work is one hundred and fifty miles or less (straightaway or turnaround). Engine crews and train crews alike are paid overtime on a speed basis of 20 miles per hour computed continuously from the time required to report for duty until released at the end of the last run.'

Accord, CONG. BUDGET OFFICE, FEDERAL SUBSIDIES FOR RAIL PASSENGER SERVICE: AN ASSESSMENT OF AMTRAK 32 (1982).

127. *Developments in Industrial Relations*, 105 MONTHLY LAB. REV. 54 (1982).

128. AMTRAK, ANNUAL REPORT *1986* at 4. *See also: Amtrak Will Employ Its Own Crews,* RAILWAY AGE March 1986, at 64.

129. Hosendolph, *Amtrak Pins Hopes on New Enterprises,* N.Y. Times, May 24, 1981, at 21, col. 6; AMTRAK, ANNUAL REPORT *1983* at 5-6; AMTRAK, ANNUAL REPORT *1984* at 6 (1985). Lewis, *Auto Train Rolls Up a Profit*, 185 RY. AGE 86 (1984).

tems; real estate development of Amtrak-owned land in urban areas; cogeneration of electricity and steam for Amtrak's use and for sale to outside customers at a new plant in New Haven, Connecticut, and a fiber optics communications cable project with MCI Communications.[130] Amtrak and MCI agreed to run this cable along the Northeast Corridor right-of-way from New York to Washington. It provides Amtrak with its own telecommunications line and surplus capacity for sale to outside customers.[131]

Since 1981, Amtrak has initiated very few new routes. One innovation has been the revival of "Auto-Train" service from the Washington, D.C. area to Florida.[132] Amtrak purchased the equipment from the bankrupt Auto-Train Corporation and began operating the service in October, 1983.[133] Another innovation has been the resumption of service to Cape Cod for the first time since 1964.[134]

In July, 1982, W. Graham Claytor, Jr. became Amtrak's fourth president.[135] Claytor has emphasized the need for cost reduction and increases in productivity.[136] The 1979 Act required that Amtrak achieve a ratio of 50 percent of its costs covered by revenue by 1985.[137] Amtrak achieved this ratio in 1982, three years ahead of schedule.[138] Claytor has declared that Amtrak will continue to seek improvements in its revenue-to-cost ratio, which stands at .62 in 1986.[139] Reduction of costs not covered by revenue means reduction of the federal subsidy required. Economical operations, rather than expansion of the system, appears to be Amtrak's principal objective at the present time.

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130. AMTRAK, ANNUAL REPORT 1984 at 6.

131. AMTRAK, ANNUAL REPORT 1983 at 9.

132. AMTRAK, ANNUAL REPORT 1983 at 14; AMTRAK, ANNUAL REPORT 1984 at 8 (1985). *See also* Lewis, *Auto Train Rolls Up a Profit,* 185 RY. AGE 86 (1984).

133. AMTRAK, ANNUAL REPORT 1983 at 14; AMTRAK, ANNUAL REPORT 1984 at 8.

134. AMTRAK, ANNUAL REPORT 1986 at 7; *see also Hopes Rise for a New York Rail Link to Cape Cod,* N.Y. Times, Jan. 19, 1986, at A34, col. 4; *Rail Service to Cape Has Caught On,* N.Y. Times, Aug. 3, 1986, at 38, col. 1.

135. *See Claytor Charts a Course for Amtrak,* 184 RY. AGE 43, 44 (1983).

136. Fahrenwald, *Amtrak: Stability at 13,* 185 RY. AGE 58 (1984); AMTRAK, ANNUAL REPORT 1984 at 1, 3, 5-6, 9.

137. 1979 Act, *supra* note 110, § 103(a): Improvement of the ratio of revenue to operating expenses, with the goal of coverage of at least 50 percent of operating expenses, excluding depreciation, from revenues by the end of Fiscal Year 1985.

138. "Our success in this effort can best be measured by our revenue to cost ratio, the percentage of total operating costs covered by our revenues. By the end of FY 82 [Fiscal Year 1982], we had surpassed a revenue to cost ratio of .50. Congress had directed that this target be achieved by FY 85, yet we were able to reach it a full three years ahead of schedule." AMTRAK, ANNUAL REPORT 1983 at 4.

139. AMTRAK, ANNUAL REPORT 1984 at 3; AMTRAK, ANNUAL REPORT 1986 at 5.

D. AMTRAK IN 1987

1. LEGISLATION

The Rail Passenger Service Act, as amended, remains Amtrak's organic statute.[140] The Amtrak Improvement Act of 1981 is the most recent modification of the original statute.[141] The Congressional "findings" now emphasize both economic efficiency as well as attainment of social goals.[142] Amtrak's operations must be both cost-efficient and energy-efficient.[143] Congress finds that such service will help alleviate the overcrowding of airways, airports and highways,[144] and will provide travelers with freedom of choice among modes of transportation.[145] Congress also finds that rail passenger service is important to the viability of major urban areas,[146] and to the national goal of energy conservation and energy self-sufficienty.[147] Finally, Congress declares the Northeast Corridor to be a "valuable national resource" to be used by passenger, commuter and freight service.[148]

Congress has provided specific managerial goals for Amtrak. The NRPC is directed to use its best business judgment to reduce the need for federal subsidies by increasing its fares and other revenues.[149] Amtrak must improve the number of passenger-miles generated by the system,[150] eliminate the food and beverage service deficit,[151] operate its trains within 15 minutes of published schedules,[152] and maintain a system-wide average speed of 60 miles per hour.[153] The NRPC is directed to maximize the productivity of its resources, employees, facilities and real estate.[154]

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140. The Rail Passenger Service Act, as amended, is codified at 45 U.S.C. § 501 *et seq.* (1982).

141. 1981 Act, *supra* note 89.

142. 45 U.S.C. § 501(a) *supra* note 121.

143. *Id.*

144. *Id.*

145. *Id.*

146. 45 U.S.C. § 501(c)(1) (1982).

147. *Id.*

148. 45 U.S.C. § 501(c)(3) (1982).

149. 45 U.S.C. § 501(a)(1) (1982); *supra* note 122.

150. 45 U.S.C. § 501(a)(3) (1982); *supra* note 122.

151. 45 U.S.C. § 501(a)(4) (1982); *supra* note 122.

152. 45 U.S.C. § 501(a)(6) (1982); *supra* note 122.

153. 45 U.S.C. § 501(a)(8) (1982); *supra* note 122.

154. 45 U.S.C. § 501(a)(14) (1982); *supra* note 122: Amtrak's maximization of the use of its resources, including the most cost-effective use of employees, facilities, and real estate. Amtrak is encouraged to enter into agreements with the private sector and undertake initiatives which are consistent with good business judgement and designed to maximize its revenues and minimize Federal subsidies.

Amtrak remains a private corporation as a matter of law.[155] It is to be managed as a for profit corporation, a formulation which recognizes little likelihood of profitability but seeks to impose market forces as a source of economic discipline.[156] Amtrak's common stock is held by four railroads, and its preferred stock is held by the United States government.[157]

The NRPC has the power to operate intercity passenger trains, commuter service, express (package) service, auto-ferry service, and mail service.[158] It may provide these services directly (using its own employees, equipment and right-of-way) or indirectly (by contracting with private railroads).[159] However, the statute instructs Amtrak to "directly operate and control all aspects of its rail passenger service."[160] Since 1973, Amtrak has had the power to acquire property by eminent domain, except that it may not exercise this right against the property of other railroads where the property could be acquired otherwise.[161]

Amtrak has certain rights under the Interstate Commerce Act as modified by the Rail Passenger Service Act. Amtrak is deemed a common carrier by rail within the meaning of the Interstate Commerce Act, but it is exempt from provisions relating to the regulation of rates, fares and charges; the abandonment or extension of lines used solely for passenger service; regulation of routes and services; and the issuance of securities.[162] Amtrak is, however, subject to Interstate Commerce Act

155. There is authorized to be created a National Railroad Passenger Corporation. The Corporation shall be operated and managed as a for profit corporation, the purpose of which shall be to provide intercity and commuter rail passenger service, employing innovative operating and marketing concepts so as to fully develop the potential of modern rail service in meeting the Nation's intercity and commuter passenger transportation requirements. 45 U.S.C. § 541 (1982).

156. The 1978 Act amended section 301 of the 1970 Act "to conform the law to reality, providing that Amtrak shall be 'operated and managed as' a for profit corporation. This amendment recognizes that Amtrak is not a for profit corporation." 1978 Act, *supra* note 103, § 9; 1978 ACT. LEG. HIST., *supra* note 114, at 2323.

157. Railroads holding common stock are the Burlington Northern, the Chicago-Milwaukee-St. Paul & Pacific, Penn Central, and the Grand Trunk Western. THOMS, *supra* note 9, at 52. *See* 45 U.S.C. 45 § 544(a). The 1981 Act required Amtrak to issue to the Secretary of Transportation "a sufficient number of shares of preferred stock to equal, to the nearest whole share, the amount of funds appropriated by Congress for capital acquisitions or improvements between October 30, 1970, and September 30, 1981. Further shares must be issued for future appropriations. 1981 Act, *supra* note 89, § 1175; 45 U.S.C. § 544(c)(1) and (2).

158. 45 U.S.C. § 545(d)(1) (1983).

159. *Id.*

160. "Insofar as practicable, the Corporation shall directly operate and control all aspects of its rail passenger service." *Id.*

161. 2 U.S.C. § 545(d)(1) (1983).

162. The Corporation shall be deemed a common carrier by railroad within the meaning of section 1(3) of the Interstate Commerce Act and shall be subject to all provisions, including the provisions of Section 22(1) of the Interstate Commerce Act other than those pertaining to—

provisions relating to safety and employee relations.[163] Federal preemption applies to state laws relating to rates, routes and services, state full-crew laws and state laws restricting auto-ferry service.[164] The Interstate Commerce Commission has jurisdiction to hear complaints from aggrieved motor carriers that Amtrak engaged in predatory pricing on the routes in which it competes with them.[165] Since 1981, Amtrak has been exempt from state and local taxes.[166] Amtrak employees and the employees of contracting railroads are covered by the Rail Passenger Service Act's provisions for labor protection.[167]

The NRPC is authorized to contract with railroads for the use of their rights-of-way and other facilities, and such contracts must have penalties for untimely performance.[168] The Interstate Commerce Commission may set terms and compensation for services and the use of rights-of-way if Amtrak and the private railroads are unable to agree.[169] Railroads are obliged to give Amtrak trains preference over freight trains in the use of rights-of-way unless the Secretary of Transportation orders otherwise.[170] States, groups of states, regional or local agencies or other persons may contract with Amtrak to provide service if the requesting party is willing to contribute to the costs of the service.[171]

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(1) regulation of rates, fares, and charges;
(2) abandonment or extension of lines of railroads utilized solely for passenger service, and the abandonment or extension of operations over such lines of railroads, whether by trackage rights or otherwise;
(3) regulations of routes and service and, except as otherwise provided in this Act, the discontinuance or change of passenger train service operations; and
(4) the issuance of securities or the assumption of any obligation or liability with respect to the securities of others.

2 U.S.C. § 546(a) (1983); *see* Thoms, *Clear Track for Deregulation,* 12 TRANSP. L. J. 183, 198 (1982): "Since Amtrak is thought of as a proprietary program, it is a bit unusual to think of the Rail Passenger Service Act as a deregulation law. But inasmuch as it took passenger trains out from under I.C.C. regulation, it can be seen as the first of the transportation deregulation bills of the 1970s."

163. 45 U.S.C. § 546(b) (1983).

164. 45 U.S.C. § 546(c) (1983).

165. *Id.*

166. Notwithstanding any other provision of law, the National Railroad Passenger Corporation ("the Corporation") shall be exempt from any taxes or other fees imposed by any State, political subdivision of a State, or local taxing authority which are levied on the Corporation, or any railroad subsidiary thereof, from and after October 1, 1981, including such taxes and fees levied after September 30, 1982: Provided, however, that notwithstanding any provision of law, the Corporation shall not be exempt from any taxes or other fees which it is authorized to pay as of the date of the enactment of this provision. 45 U.S.C. § 546(b) (1983). (enacted Sept. 10, 1982; Pub. L. No. 97-257, Title I, Ch. XII in part, 96 Stat. 852).

167. 45 U.S.C. § 565 (1983).

168. 45 U.S.C. § 562 (1983).

169. *Id.*

170. 45 U.S.C. § 562(e) (1983).

171. 45 U.S.C. § 563 (1983). The state, agency, or person must submit a statement that it agrees to pay 45 percent of the short term avoidable costs and 50 percent of the associated

Amtrak's principal source of funding is an annual appropriation from Congress.[172] The Secretary of Transportation is authorized to provide loan guarantees of up to $930 million.[173]

The Secretary of Transportation is also directed to consult with Amtrak to develop a method of evaluating new rail passenger service corridors for development.[174] The Secretary must determine which corridors have the greatest potential for attracting riders, reducing energy consumption and providing cost-effective transportation.

2. *AMTRAK OPERATIONS*

Amtrak currently operates a route system of 24 thousand miles, serving 491 stations,[175] including Montreal and Toronto, Canada. Operations in 1986 totaled 29 million train miles.[176] A map of the current route system follows as Appendix.[177] Of the stations served, 94 have no intercity airline service, 52 have no intercity bus service, and 25 have neither airline nor bus service.[178]

Amtrak's operating fleet in 1986 consisted of 291 locomotives, both diesel and electric (average age: 8 years) and 1,664 passenger cars.[179] Amtrak's ridership for 1986 was 20.3 million passengers.[180] These passengers traveled 5,013 million passenger miles. Ridership has been stable for several years, in the vicinity of 20 million passengers per year.[181]

When compared with other modes of transportation, Amtrak's ridership initially seems insignificant. The Congressional Budget Office estimated that in 1981, Amtrak's share of all intercity passenger miles was

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capital cost for the first year of operation, and 65 percent of the short term avoidable costs and 50 percent of the associated capital costs in each year of operation thereafter.

172. 45 U.S.C. § 601 (1983).

173. 45 U.S.C. § 602 (1983).

174. 45 U.S.C. § 651 (1983).

175. AMTRAK, ANNUAL REPORT 1986 at 23.

176. *Id.*

177. AMTRAK, AMTRAK RESPONDS TO WRITTEN TESTIMONY OF OMB, Submitted to the Senate Committee on Commerce, Science, and Transportation, May 2, 1985 (available from Amtrak); [hereinafter cited as AMTRAK RESPONSE TO OMB].

178. Welty, *Amtrak Under Siege*, 186 RY. AGE 37,40 (1985); *cf. Amtrak Reauthorization: Hearings Before the Subcomm. on Surface Transportation of the Senate Comm. on Commerce, Science and Transportation*, 99th Cong., 1st Sess. 74 (1985) (written statement of W. Graham Claytor, Jr., President of Amtrak) [hereinafter cited as *1985 Senate Transportation Subcomm. Hearings*]: "One hundred and sixty-one communities served by Amtrak will have no air service upon termination of the present local commuter air services subsidy. Fifty two Amtrak-served communities have no intercity bus service. Twenty-nine Amtrak-served communities have neither air nor bus service."

179. AMTRAK, ANNUAL REPORT 1986 at 23.

180. *Id.*

181. *Id.*

less than one percent.[182] However, this market share is best understood if it is remembered that 85 percent of all intercity passenger miles were traveled by private automobile, and only 15 percent were traveled by all common carriers together, including airlines, buses and Amtrak.[183] Of the common carrier market, the Congressional Budget Office estimated that in 1982 Amtrak's share was approximately 2 percent, as compared with 12 percent for intercity buses, and 86 percent for airlines.[184]

Amtrak's response to these estimates is that they reflect limitations imposed by the Department of Transportation and Congress on Amtrak's route system and the limited size of its operating fleet, which prevent the public from choosing Amtrak as an alternative.[185] In addition, any one carrier's share of the transportation market is small. When compared to the major airlines, Amtrak in 1986 was the seventh largest carrier of passengers in the United States.[186]

The Northeast Corridor is Amtrak's most successful market. In 1984, of Amtrak's total ridership of 19.9 million passengers, 10.8 million rode the Northeast Corridor route.[187] For the first three months of 1986, Am-

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182. CONG. BUDGET OFFICE, FEDERAL SUBSIDIES FOR RAIL PASSENGER SERVICE: AN ASSESSMENT OF AMTRAK 35-36 (1982).

183. *Id.*

184. *Id.*

185. We have never believed that our mandate was to grow as large as the U.S. airline industry. In fact, in recent years we have attempted to maximize revenues and not ridership, in order to limit our dependence on federal funding. Our 24,000 mile route structure, as designed by the Department of Transportation in 1971 and as modified by Congress in 1979 and 1981, is quite modest in comparison to other modes. In many areas, because of budgetary constraints and lack of equipment, we can provide only limited service. AMTRAK RESPONSE TO OMB, *supra* note 177, at 5, 10. *See also supra* note 69 for table comparing Amtrak's operating fleet to those of other national passenger railroads.

186.

Passenger Ranking

Amtrak and Largest Air Carriers*

Twelve Months Ended September 30, 1986

RANK	CARRIER	PASSENGERS (millions)
1	United	46,021
2	American	42,295
3	Delta	36,398
4	Eastern	38,997
5	Piedmont	21,431
6	US Air	20,891
7	Amtrak	20,328
8	Republic	19,282
9	Continental	17,138
10	Trans World	16,152

*Domestic Operations, scheduled service

187. AMTRAK, ANNUAL REPORT 1984 at 19.

trak carried 306,300 passengers between New York and Washington, which was 32 percent of the total rail and air traffic on that route, according to the U.S. Department of Transportation.[188] Eastern Airlines, operator of the largest air shuttle service between the two cities, carried 237,240 passengers, or 24.7 percent of total passengers.[189]

For Fiscal Year 1987, Amtrak's federal subsidy is $602 million, down from a high of 896.3 million in 1981 and 716.4 million in 1984.[190] Amtrak argued its subsidy represented .07 of one percent of the federal budget for Fiscal Year 1986, and thus disputes the Administration's claim that federal spending for Amtrak contributes significantly to the budget deficit.[191] Amtrak also claims that its need for federal funding has declined steadily since 1981.[192]

Amtrak attributes its ability to reduce its need for federal subsidies to successful efforts to reduce costs and increase revenues, as shown by the revenue-to-cost ratio. For 1986, Amtrak reported a revenue-to-cost ratio of .62, up from .58 during Fiscal Year 1985 and .53 in 1982.[193] As this ratio improves, Amtrak's need for federal subsidies is reduced.

Based on these data, Amtrak's management contends that it has improved both its financial and operating performance, and that it has conformed to the standards imposed by Congress in the Rail Passenger Service Act as amended.[194] From the passenger's perspective, one needs only to remember the "bad old days" of the early 1970s (with battered passenger cars, unreliable locomotives, crumbling stations and numerous other woes) to realize that Amtrak has made considerable improvements in the experience of traveling by train.

III. AN ASSESSMENT OF THE PUBLIC BENEFITS PROVIDED BY AMTRAK

In arguing that Amtrak's funding should be terminated, former

188. Stuart, *Amtrak Rolls Past Shuttles In Number Of Riders*, N.Y. Times, Nov. 23, 1986 at 52, col. 4.

189. *Id.*

190. *Id.*

191. "The suggestion that Amtrak's potential 7/100 of one percent of the FY 86 contributes to 'threatening deficits' is rather extravagant." AMTRAK RESPONSE TO OMB, *supra* note 177, at 1.

192. Amtrak's Declining Need for Federal Funding

(FY 86 $-Millions)

FY 81	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87	FY 88
1124	870	766	786	713	684	656	632

SOURCE: AMTRAK RESPONSE TO OMB, *supra* note 177, at 27. (Calculated in constant dollars of purchasing power)

193. Amtrak, *Annual Report 1986* 5 (1987).

194. Amtrak, *Annual Report 1986* 3-4 (1987); *1985 Senate Transportation Subcomm. Hearings*, *supra* note 178, at 69-70.

Budget Director David A. Stockman declared that Amtrak produces no significant public benefits.[195] The Rail Passenger Service Act as amended makes clear which benefits Congress hoped to gain from Amtrak:[196] provide a balanced system of transportation with freedom of choice for the traveler; reduce congestion on highways and the overcrowding of airports and airways; move passengers safely; and help achieve national goals of energy conservation and energy self-sufficiency. Since 1981, Amtrak has been directed to use its best business judgment to minimize federal subsidies while seeking to achieve these other objectives.[197]

Given these objectives, how well has Amtrak performed? One way to answer that question is to examine studies which have evaluated Amtrak's performance. Three studies, all of them critical of Amtrak, will be considered here. The most thorough and detailed study was prepared by Frank Mulvey, an economist at Northeastern University for the National Transportation Policy Study Commission in 1977.[198] Although Mulvey acknowledged that Amtrak "for better or worse, is here to stay for the foreseeable future,"[199] he concluded that Amtrak was not a good public investment and that if Congress was determined to preserve it, "efforts are needed to make that service more cost-effective than it is today."[200] The second study was prepared by George W. Hilton, a professor of economics at the University of California at Los Angeles, and was published by the American Enterprise Institute.[201] Hilton concluded that Amtrak had been unsuccessful by any standard, and that rail passenger service should be allowed to disappear.[202] Finally, the Congressional Budget Office produced a study in 1982 which concluded that Amtrak's contributions to social goals were minimal, and that therefore, large federal subsidies were difficult to justify.[203]

These studies provide data to answer the question of how well Amtrak has provided the benefits Congress intended. By using three studies which are critical of Amtrak, any pro-Amtrak bias should be controlled, so that the results of this study will be more reliable. A weakness of this approach is that each of the three studies considered a different list of

195. *1985 Senate Transportation Subcomm. Hearings*, *supra* note 178, 15-50 (oral and written testimony of David A. Stockman); *see supra* note 114; *see also Stockman Presses Senators to End Amtrak Subsidy*, *supra* note 3.

196. Rail Passenger Service Act, as amended; 45 U.S.C. § 501a (1982).

197. *Id.* § 501a.

198. MULVEY, *supra* note 7.

199. *Id.* at 42.

200. *Id.* at 192.

201. HILTON, *supra* note 7.

202. *Id.* at 5-6, 62.

203. CBO STUDY, *supra* note 7.

purported benefits, and therefore it is impossible to see how each analyst would rate Amtrak's performance in each category. The benefits to be examined are: alleviating highway and airport congestion; providing safe transportation; providing energy-efficient transportation; providing an alternative system of transportation; and achieving economical operations.

A. Alleviating Airport and Highway Congestion

Professor Mulvey, in his 1977 study, was the only analyst to consider Amtrak's contribution to alleviating airport and highway congestion, despite the fact that this has been listed as one of the objectives for Amtrak since the Rail Passenger Service Act was first enacted in 1970.[204] Neither Professor Hilton nor the Congressional Budget Office addressed this issue.

1. Airport Congestion

Amtrak's contribution to reducing airport congestion was considered significant in the Northeast Corridor but not in other parts of the system.[205] This was because only in the Northeast Corridor was the service frequent enough to compete with airlines. Airport congestion was estimated by considering the number of aircraft delays that are prevented when Amtrak provides an alternate means of transportation.[206] Using a regression analysis model developed by the Federal Aviation Administration, Mulvey calculated the number of takeoffs and landings that could be eliminated if passengers traveled by Amtrak instead of airplane, and then estimated the decrease in delays due to reduced congestion.[207] Mulvey assumed that passengers in 1977 valued their time at $10.00 per hour (because many Northeast Corridor passengers travel on business). He then calculated that the annual benefit of reducing aircraft delays due to Amtrak was slightly over $1.5 million for 1976.[208]

Projecting this data into 1990, Amtrak's Northeast Corridor service appeared to make a significant contribution to reducing congestion and delays.[209] If Northeast Corridor airports remained at the same capacity but demand for air travel increased, congestion and delays could be expected to increase. However, if Amtrak's Northeast Corridor service remained in operation, the number of delays would be reduced by 64,808

204. *Compare* Rail Passenger Service Act of 1970, *supra* note 29, § 101 with Amtrak Improvement Act of 1981, *supra* note 121, § 1171.

205. MULVEY, *supra* note 7, at 83, 93.

206. *Id.* at 85: "In order to estimate the effect of Amtrak services, it is necessary to forecast aircraft delays due to increased traffic if Amtrak's service did not exist."

207. *Id.* at 85-88.

208. *Id.* at 88.

209. *Id.* at 172.

annually, for an estimated savings of $190.4 million per year.[210] If airport capacity along the corridor expanded by 50 percent, the reduction in delay would be less, but still significant. If Amtrak continued to divert passengers from airlines while airport capacity expanded by 50 percent, then 13,838 fewer flights would be delayed each year, for an annual savings of $40.6 million dollars.[211]

A program to shift air passengers to high-speed rail service could therefore prove cost-effective. Because airport expansion is very costly, the savings realized through continuing Amtrak service could be significant.[212] Thus, Amtrak makes a positive social and economic contribution by reducing airport and airway congestion along the Northeast Corridor.[213]

2. *Highway Congestion*

Mulvey confined his analysis of highway congestion to the Northeast Corridor.[214] He observed that highway congestion is a problem which is not exclusively caused by intercity traffic, but results primarily from local commuter traffic. He defined the benefit of reduced highway congestion as reduced travel time for people who drive.[215] The more travelers are diverted from automobile to Amtrak, the more congestion is reduced, and the less delay there is for travelers. In 1976, there were 60 billion automobile passenger miles driven in the Northeast Corridor region.[216] Amtrak diverted approximately 1 billion passenger miles, or 2 percent. Measuring the benefit of reduced highway congestion is difficult because the benefit to the traveler of reduced delay may not be perceived.[217] However, assuming that the traveler does perceive a benefit, and values his time at $3.00 per hour, Mulvey calculated the aggregate benefit due to Amtrak ranged between $10 million and $15 million annually.[218]

In forecasting the situation in 1990, Mulvey considered to extent to which the highway system would be expanded. If no highway expansion were to take place, the benefit of diverting drivers to Amtrak could reach

210. *Id.* at 174.
211. *Id.* at 174.
212. *Id.* at 174.
213. An additional variable which future studies may wish to consider is the location of the airports under study. Some airports are located in areas which limit the potential for expansion (e.g., LaGuardia in New York City, or Washington National in the District of Columbia) almost regardless of cost. Other airports may have greater ability to expand at a more reasonable cost.
214. Mulvey, *supra* note 7, at 89.
215. *Id.* at 89.
216. *Id.* at 92.
217. *Id.* at 92.
218. *Id.* at 92.

$200 million per year.[219] If highways were expanded by 50 percent, the value of the time saved could be estimated at $82 million per year, and if highway capacity were doubled, at $71 million per year.[220] Mulvey noted several factors which would limit the savings which could be realized.[221] Although he observed that "there do appear to be important savings from NEC auto traffic congestion relief by Amtrak in 1990,"[222] he questioned whether Amtrak was the best way to achieve these benefits.[223]

B. Providing Safe Passenger Transportation

Congress recognized that Amtrak could provide safe transportation to the traveling public.[224] Professor Mulvey acknowledged that passenger rail service is very safe, but noted that all common carrier systems (bus, airline, and rail) have excellent safety records. Most travel-related accidents involved private automobiles.[225]

Using 1976 as a test year, Professor Mulvey estimated that because passengers took Amtrak instead of driving, 33 lives were saved.[226] If each fatality were valued at $300,000, the savings realized by preventing these deaths could be valued between $10 million and $33 million for 1976.[227] When other costs of accidents were included (e.g., lost time

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219. *Id.* at 176.

220. *Id.* at 176.

221. Mulvey noted possible limitations on the savings:

1). the estimated value for the traveler's time in 1990, which may be distorted by inflation;

2). the assumption that all traffic uses the Interstate 95 highway network, which may not be true in 1990, and

3). the time saved may be imperceptible to the traveler. *Id.* at 176.

222. *Id.* at 177.

223. *Id.* at 177.

224. The safe transportation of passengers was expressly recognized in the Amtrak Reorganization Act of 1979: ". . . rail passenger service offers significant benefits in public transportation for the safe movement of passengers. . . ." 1979 Act, *supra* note 110, § 102. This reference to the safe transportation of passengers was deleted when Congress amended the "Findings" in the Amtrak Improvement Act of 1981. 1981 Act, *supra* note 89, § 1171.

225. Mulvey, *supra* note 7, at 60. Amtrak suffered its worst fatal crash on January 4, 1987, at Chase, Maryland, near Baltimore on the Northeast Corridor. A northbound Amtrak train, "the Colonial," operating from Washington to Boston collided with a string of three Conrail freight engines. Sixteen persons were killed, including the Amtrak engineer. The accident is under investigation at the time of this writing. *See:* Stuart, *Amtrak Wreck Kills 12, Scores Injured,* N.Y. Times, Jan. 5, 1987 at A1, col. 2; Stevens, *Death Toll At 15 In Amtrak Crash; Freight Use Of Track Is Questioned,* N.Y. Times, Jan. 6, 1987, at A1, col. 1; Stevens, *Rail Signals Were Working, Crash Investigators Report,* N.Y. Times, Jan. 7, 1987, at A14, col. 1; Stuart, *Test Train Stops In Enough Time To Avoid Crash,* N.Y. Times, Jan. 13, 1987, at A14, col. 6; Stuart, *2 Trains Were Speeding Before Crash, Board Says,* N.Y. Times, Jan. 14, 1987, at A12, col. 1; Stuart, *Drug Trace Found In 2 Rail Workers After Fatal Crash—Inquiry Finds The Operators Of Conrail Engines Showed Signs Of Marijuana,* N.Y. Times, Jan. 15, 1987, at A1, col. 5.

226. MULVEY, *supra* note 198, at 62.

227. *Id.* at 63.

from work, medical expenses, insurance administration, and property damage) an additional savings of $18 million was realized.[228] Therefore, the total 1976 savings for Amtrak's diversion of passengers could be valued at between $28 and $51 million.[229]

Projecting this trend to 1990, Mulvey estimated that Amtrak would produce savings between $38.5 million and $132.2 million for reduced fatalities, and $50 million for other accident-related costs.[230] Thus, the total contribution would be between $88.5 million and $188.2 million for 1990.

Although Amtrak clearly seemed to make a positive contribution to safe travel, Mulvey questioned whether Amtrak was the most cost-effective way of promoting safety.[231] He suggested that the same money spent on highway safety or improving the crash-worthiness of automobiles might produce greater savings.

Professor Hilton agreed that Amtrak is an extremely safe form of transportation, and cited fatality rates for rail accidents even lower than those used by Mulvey.[232] However, Hilton argued that Americans have been willing to take the risks associated with automobile travel for nearly 40 years.[233] If people are willing to accept the greater risks, then in Hilton's view, providing safer transportation by preserving rail passenger service is unnecessary and uneconomical.

Thus, two of Amtrak's critics acknowledged that Amtrak provides a benefit to society in the form of safe passenger transportation, although they disputed that Amtrak was an appropriate means to gain that benefit. The 1982 Congressional Budget Office study did not consider passenger safety as a potential benefit from Amtrak.[234]

C. *Energy Conservation*

The commonly-held belief that trains are relatively energy efficient as compared to other modes of transportation was reflected in a 1979 report by the Secretary of Transportation which was part of the legislative history of the Amtrak Reorganization Act of 1979:

> . . . it is widely recognized that with sufficient ridership levels and modern, state-of-the-art equipment, the passenger train is the most energy-efficient of all modes. The engineering characteristics of the train are superior to those

228. *Id.* at 64.
229. *Id.*
230. *Id.* at 158.
231. *Id.* at 64.
232. HILTON, *supra* note 7, at 54 (Table No. 16).
233. *Id.* at 53.
234. For a list of the variables considered, *see* CBO STUDY, *supra* note 7, at 9.

of other modes.[235]

The Secretary's report claimed that trains are superior because steel wheels on steel rails generate less friction than rubber tires generate on highways; because additional cars can be added to trains with little reduction of energy efficiency, and that a passenger train's energy efficiency is more pronounced at higher speeds.[236]

Professor Mulvey suggested two qualifications to this optimistic view of the train's energy efficiency. First, when comparing modes of transportation, one must consider the circuity of routes.[237] Rail lines are not always as direct as air routes or modern highways. Trains may have to travel more miles to reach their destinations than aircraft, buses, or automobiles. Therefore, although trains may be more efficient on a per-mile basis, if the route of the train is circuitous, some of the advantage may be lost. Second, long-haul trains (which include diner, sleeper, baggage, and lounge cars) are less energy efficient because the extra cars add weight without carrying additional passengers.[238]

Mulvey acknowledged that early studies of energy usage showed that the passenger train is second only to the intercity bus in energy conservation, and is significantly more efficient per passenger mile than aircraft or automobiles.[239] However, Mulvey noted that the early studies were conducted under laboratory conditions, which did not acknowledge the effect of grades on energy consumption.[240] Moreover, deteriorated plant and equipment, such as Amtrak possessed in the 1970s, further reduces energy efficiency. Finally, in the middle 1970s, Amtrak trains operated with low passenger loads.[241] When load factors are low, a train does not conserve as much energy because it is carrying empty seats instead of passengers. The intercity bus was considered more efficient than rail in all categories of service (corridor, short-haul, and long-haul).[242]

Using Amtrak's estimates for energy consumption, if short-haul trains operated at 30 percent load factors and long-haul and corridor trains operated at 50 percent load factors, Mulvey estimated that Amtrak could save up to 53 million gallons of oil per year by diverting passengers from other modes.[243] Although savings in oil consumption could be realized, Mulvey contended that there are less costly ways to achieve the same

235. 1979 ACT LEG. HIST., *supra* note 5, at 1200.
236. *Id.* at 1200-1201.
237. MULVEY, *supra* note 7, at 66; 1979 ACT LEG. HIST., *supra* note 5, at 1202.
238. 1979 ACT LEG. HIST., *supra* note 5, at 1202.
239. MULVEY, *supra* note 7, at 66.
240. *Id.* at 66.
241. *Id.* at 69.
242. *Id.* at 71.
243. *Id.* at 71-72.

savings. Mulvey argued that if all Amtrak passengers were diverted to intercity buses, an additional 38.3 million gallons would be saved.[244] Alternatively, full compliance with the 55 mile-per-hour speed limit for automobiles could save 2.5 billion gallons of oil per year.[245]

Amtrak's long-haul trains appeared to use as much energy as other means of transportation, and therefore, "Amtrak's contribution to fuel conservation is effectively zero for long-distance travel."[246] Mulvey suggested that if short-haul trains (lacking the luxury service cars) were substituted, energy savings for the entire system would be significantly higher.[247]

Looking to future Amtrak performance, if fuel costs were assumed to rise at 6 percent per year, the fuel savings in 1990 would be equivalent to $244 million per year. Mulvey concluded that the savings are small in light of Amtrak's operating deficit and the capital expenditures required to bring about the savings.[248]

Professor Hilton's study did not consider the energy conservation issue in detail, and merely noted that the "passenger train is a large, heavy vehicle, which requires continual acceleration and deceleration, and therefore heavy energy inputs."[249] Hilton noted that intercity passenger trains require just over half the fuel per passenger-mile of aircraft, slightly more than automobiles, and nearly triple that of buses.[250] It seems clear that Hilton was referring to long-haul trains, without considering the better performance of short-haul and corridor electric trains.

The 1982 Congressional Budget Office study reached similar conclusions as to Amtrak's ability to save energy: that the intercity bus is the most efficient mode; that rail is more efficient than the automobile on the Northeast Corridor, but somewhat less efficient outside the Corridor; and that air travel is the least energy-efficient mode of all.[251] The Congressional Budget Office also agreed with Mulvey that Amtrak's Northeast Corridor service saves a small amount of energy, and more specifically, a small amount of petroleum.[252] However, the Congressional Budget Office also agreed that the cost of achieving this small savings was disproportionate to the savings gained, and that investment in other forms of energy conservation measures would be more cost-effective.[253]

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244. *Id.* at 71-73.
245. *Id.* at 73.
246. *Id.* at 73.
247. *Id.* at 73.
248. *Id.* at 164.
249. HILTON, *supra* note 7, at 52.
250. buses. *Id.* at 15.
251. CBO STUDY, *supra* note 7, at 14.
252. *Id.* at 15.
253. *Id.* at 16-17.

D. Alternative System of Transportation

Congress recognized the need for a "balanced system of transportation" and declared that travelers in America should have "freedom of choice" among modes.[254] Several events have created the perception that Amtrak could serve as an alternative system of transportation for use in emergencies. During World War II, passenger trains were used extensively to move troops and their equipment.[255] More recently, during fuel shortages in 1973-74 and 1979, Amtrak ridership increased significantly as people sought alternatives to their private cars and long gas lines.[256] Rail ridership has also increased temporarily during airline and bus strikes.

Professor Mulvey's analysis did not evaluate Amtrak as an alternative transportation system. Professor Hilton observed that although Amtrak's ridership increased 20 percent during each of the fuel shortages, Amtrak's share of total intercity passenger travel is still so small as to be insignificant.[257] The Congressional Budget Office concluded that during fuel shortages, the majority of passengers shifted from automobile to buses and that during strikes, passengers shifted from the affected industry to their private automobiles.[258] The principal difficulty in relying on Amtrak in a transportation emergency is that the system has only limited carrying capacity and can serve only selected destinations.[259] Using assumptions favorable to Amtrak, the Congressional Budget Office estimated that the maximum contribution that Amtrak could make would be 4 percent of the total demand for intercity common carrier service.[260]

Turning to military uses for Amtrak during wartime, the Congressional Budget Office found that after World War II, the federal government spent billions to develop the Interstate Highway System and to aid the development of air transportation.[261] Because these systems now exist, there is little reason to imagine rail service would be preferable during wartime. The Congressional Budget Office also observed that the usefulness of the rail passenger system depends on the condition of the right-of-way, which is too poor to accommodate passenger service in most of the United States.[262]

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254. *Compare* 1970 Act, *supra* note 29, § 101 *with* 1981 Act, *supra* note 89, § 1171; 45 U.S.C. § 501(a) (1982).

255. HILTON, *supra* note 7, at 4.

256. *Id.* at 32.

257. *Id.* at 65.

258. CBO STUDY, *supra* note 7, at 18.

259. *Id.* at 18.

260. *Id.* at 19.

261. *Id.* at 19.

262. *Id.* at 19.

E. ECONOMIC EFFICIENCY

Amtrak has frequently been criticized for uneconomical operations, which have resulted in large federal subsidies and in failure to achieve profitability.[263] However, when Amtrak was created, the 1970 Act did not establish specific financial goals for the Corporation. Instead, the 1970 Act provided that "the Corporation shall be a for profit corporation."[264]

This language is not without ambiguity. Did this mean that Amtrak was to exist only if it could operate at a profit? Or did Congress mean only that this was the form of business organization it chose to operate the national rail passenger system (as opposed to nationalization or federal subsidies to existing private railroad companies)?[265] If profitability was required, within what time period was it to be achieved, and how was it to be defined? The 1970 Act was silent as to these matters.

The legislative history of the 1970 Act does not resolve the question of Congressional intent conclusively. In discussing the purpose of the 1970 Act, House Report 91-1580 stated:

> The Corporation would be expected to revitalize rail passenger service in the expectation that the rendering of such service *along certain corridors* can be made a profitable commercial undertaking, particularly with new equipment or advanced vehicles.[266]

Congress apparently recognized that not all corridors would be profitable. The same report also stated that Congress' greatest concern was the preservation of some rail passenger service:

> The *basic* purpose of this bill is to prevent the complete abandonment of intercity rail passenger service and to preserve a minimum of such service along specific corridors. . . . The *overriding* purpose of this legislation is to preserve and promote intercity rail passenger service. . . .[267]

Taken together, this language shows that Congress was determined to preserve rail passenger service, and that this preservation was not dependent on the achievement of profitability.

By 1978, however, Congressional sentiment had changed. Notwithstanding the 1970 language discussed above, the legislative history of the Amtrak Improvement Act of 1978 declared that Congress had always in-

263. *See, e.g., 1985 Senate Transportation Subcomm. Hearings, supra* note 178, at 20: "What I am suggesting to the committee is that the economics of Amtrak are irredeemable. If you decide to maintain Amtrak, it should not be on the basis of any kind of illusion that it is close to breaking even, that things are improving every year, that if we string out the subsidy for another 4 or 5 years, maybe, eventually, it can go away." (Remarks of David A. Stockman); *see also*, Semmens, *Don't Let Amtrak Con You,* Reason 36 (May 1985).

264. 1970 Act, *supra* note 29, at § 301.

265. *See* THOMS, *supra* note 9, at 35-37.

266. 1970 ACT LEG. HIST., *supra* note 11, at 4735 (emphasis added).

267. *Id.* at 4735 (emphasis added).

tended for Amtrak to be profit-making enterprise.[268] Demanding "something more than a restructuring of the existing economically-flawed system," Congress amended the 1970 Act to provide that Amtrak should be "operated and managed as" a for profit corporation,[269] recognizing that even if profitability were not immediately forthcoming, Amtrak should be subject to the discipline of market forces.

In 1979, following a year-long review of Amtrak's operations, Congress made additional amendments to the 1970 Act. These amendments called for specific operating improvements and set a goal for improvement in financial performance.[270] In 1981, Congress called for additional improvements in economic efficiency in amendments to the "Goals" section of the 1970 Act.[271]

This review of Congressional enactments shows that over time, Congress developed standards for Amtrak's financial performance. However, it is clear that Amtrak did not start with these criteria in place and fail to achieve them, as critics attempt to argue. Perhaps Congress initially thought that by creating Amtrak as a for profit corporation, it had given sufficient guidance. Even if that were true, however, Congress itself subsequently contributed to Amtrak's failure to achieve profitability by directing it to continue to expand its services, and by continuing to increase federal expenditures. Moreover, the legislative history of the 1970 Act shows that Congress placed greater emphasis on preserving and promoting rail passenger service than on profitability, at least until 1978. Finally, Congress clearly *never* said, "Achieve profitability or be terminated," or "Achieve profitability by a certain date". Therefore, the argument that Amtrak did not conform to Congressional expectations as to profitability is unfounded because prior to 1979, there were no clear standards to express what Congress expected.

A meaningful review of Amtrak's financial performance in light of Congressional expectations should begin no earlier than 1980, because that is when the standards enacted in 1979 first became applicable. More appropriately, a review should begin in 1982 because additional goals were set in the Amtrak Improvement Act of 1981. Such a review should attempt to apply the standards set in the 1979 and 1981 Acts to Amtrak's performance since their enactment. Only then could a meaningful judgement be reached as to whether Amtrak has satisfied Congressional expectations.

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268. 1978 ACT LEG. HIST., *supra* note 116, at 2314: "When Congress passed the Rail Passenger Service Act of 1970 (Public Law 91-518), it fully expected establishment of a national passenger train system which would eventually operate on a for-profit basis".

269. *Id.* at 2315; 1978 Act, *supra* note 103, § 11.

270. 1979 Act, *supra* note 110, § 102; for text, *see supra* note 113.

271. 1981 Act, *supra* note 89; for text, *see supra* note 123.

The three studies of Amtrak considered here[272] each based their assessments of Amtrak on data gathered before Congress enacted the specific financial and operational goals.[273] Therefore, even if these studies accurately describe Amtrak as it was when the data were gathered, they should not be used to address the question of whether Amtrak currently complies with Congressional directives.

The 1982 Congressional Budget Office study comes the closest to providing data which can be useful here, because its coverage includes some data for 1980 and 1981.[274] Looking at the period 1972-80, the Congressional Budget Office found that Amtrak lost money at an increasing rate; and therefore, its need for federal subsidies increased (by approximately 232 percent after inflation).[275] The Congressional Budget Office calculated that in 1981, the average subsidy per passenger was $37.00.[276] The crucial finding of this study was that "Amtrak's subsidy needs, under standard operating procedures, would continue to grow in future years even with no increase in services."[277]

The Congressional Budget Office explained the pattern of increasing subsidy requirements by focusing on Amtrak's costs. Acknowledging that Amtrak had increased both revenues and ridership, the Congressional Budget Office found that Amtrak's costs during 1972-81 increased more rapidly than revenues (112 percent after inflation),[278] although part of the increase was due to the expansion of the system by adding additional routes and services. Compared to other forms of passenger transportation, Amtrak had higher relative costs per passenger mile. In 1980, it cost Amtrak 25 cents per mile to move a passenger, while it cost bus companies 8 cents per mile and airlines 12 cents per passenger mile.[279] Because Amtrak had to keep its fares competitive with buses and airlines to attract riders, the revenue received from passengers only covered a fraction of Amtrak's costs, and the balance had to be covered in the form of a federal subsidy.

The Congressional Budget Office isolated three factors which accounted for Amtrak's high costs.[280] First, Amtrak's system-wide load factor in 1980 was only 48 percent[281] (although it was admitted that

272. MULVEY, *supra* note 7; HILTON, *supra* note 7; CBO STUDY, *supra* note 7.
273. Mulvey's study included data from 1976; Hilton's study included data from 1978; and the CBO Study included data from 1981.
274. *See, e.g.*, CBO STUDY, *supra* note 7 at 26.
275. *Id.* at 25-26.
276. *Id.* at 26.
277. *Id.* at 27.
278. *Id.* at 27.
279. *Id.* at 29.
280. *Id.* at 30.
281. *Id.* at 30.

particular trains were booked to capacity at peak seasons).[282] Second, Amtrak suffered from high labor costs. These costs were explained by the fact that railway labor contracts were based on traditional work rules, which encouraged unproductive practices.[283] Third, Amtrak suffered from high capital intensivity. High capital intensiveness was considered to be a characteristic of railroad passenger service in general, although the Congressional Budget Office felt that Amtrak could improve its capital use by using its existing stock of equipment more efficiently.[284]

The Congressional Budget Office concluded that Amtrak's ability to reduce its need for federal subsidies was limited.[285] Neither raising revenues through higher fares, nor increasing load factors, nor reducing costs were considered sufficient to make a major impact on the need for federal subsidies. Conceding that this assessment was based on pessimistic assumptions, the Congressional Budget Office admitted that Amtrak could realize some savings through a combination of cost control measures.[286] The most optimistic assumptions produced an estimate that Amtrak could reduce its Fiscal Year 1983 subsidy by $150 million, or 13 percent, from $1.13 billion to $980 million.[287]

The Congressional Budget Office ultimately concluded that "the only effective course toward substantially reducing the system's current deficit and subsidy levels appears to be the termination of services on those routes that are the most unprofitable."[288] The largest savings were to be realized through eliminating long-distance train service.[289]

Recent developments demonstrate that Amtrak's ability to reduce its dependence on federal subsidies has been greater than the Congressional Budget Office predicted. Despite the recommendations from the Congressional Budget Office, Amtrak did not cut its services back to the Northeast Corridor in 1982. The majority of Amtrak services was main-

282. *Id.* at 38.

283. *Id.* at 31: High labor costs are also often cited as a source of Amtrak's relative cost disadvantage. Amtrak's labor costs (corrected, for purposes of analysis, for traffic volumes and service levels) are significantly higher than those of bus or air. Amtrak's labor costs, both per seat mile and per passenger mile, far outstrip those of the bus and airline industries . . . Labor costs per Amtrak seat mile are more than twice those of air and bus. On a passenger mile basis, Amtrak's labor costs are more than twice those of air and more than triple those of bus . . . What drives Amtrak's labor costs up are the labor intensity and restrictive work rules that have characterized rail passenger operations. By relying on 1980 data, the CBO Study does not take into account the effects of Amtrak's new non-traditional labor contracts. *See supra* note 125.

284. CBO Study, *supra* note 203, at 33.

285. *Id.* at 39.

286. *Id.* at 39.

287. *Id.*

288. *Id.*

289. *Id.* at 63.

tained.[290] Nevertheless, cost-control, productivity, and revenue enhancement measures in response to Congressional directives in the 1981 Act have allowed Amtrak to increase the portion of costs it recovers from the fare-box. From a revenue-to-cost ratio of .42 in 1981, Amtrak's cost-recovery has improved to .62 in 1986.[291] Thus, Amtrak now recovers 62 percent of its cost from revenues, and requires a federal subsidy for only 38 percent of its costs. Amtrak predicts further improvements in the future. Because Amtrak recovers more of its costs from its revenues, its operating deficit is reduced and the need for federal subsidies is correspondingly reduced. Amtrak's federal subsidy has been reduced for nearly every year since 1981.[292] Amtrak's management claimed that its Fiscal Year 1986 request of $684 million is the lowest request since Fiscal Year 1977, and that in constant dollars, it was the lowest request since 1975.[293]

The significance of these figures lies in the fact that the reduction of Amtrak's subsidy has come without major reductions in Amtrak services. The 1982 Congressional Budget Office study concluded that only major service reductions could reduce Amtrak's need for federal subsidies.[294] Yet without major service reductions, Amtrak's subsidy in constant dollars of purchasing power has been reduced from $1.124 billion in 1981 to $602 million in 1987, while providing the same route system (24 thousand miles), a similar number of stations served (525 in 1981, 491 in 1986), and a comparable ridership (20.6 million in 1981, 20.3 million in 1986).[295] The conclusion follows that Amtrak has satisfied congressional expectations as to economic efficiency. The favorable comments of many members of Congress verify the accuracy of this conclusion.[296]

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290. Amtrak's system route mileage has remained stable at 24,000 miles for each year since 1980, with a temporary reduction to 23,000 miles during 1982. AMTRAK, ANNUAL REPORT 1986 at 23.

291. AMTRAK, ANNUAL REPORT 1981 at 4; AMTRAK, ANNUAL REPORT 1986 at 5.

292. For Amtrak's summary of its federal subsidy requirements, *see supra* note 192.

293. AMTRAK RESPONSE TO OMB, *supra* note 177, at 1.

294. "Thus, as the Congress deliberates on a future budget for Amtrak, the only effective course toward substantially reducing the system's current deficit and subsidy levels appears to be the termination of services on those routes that are the most unprofitable." CBO STUDY, *supra* note 7, at 39.

295. AMTRAK ANNUAL REPORT 1981 29 (1982); AMTRAK ANNUAL REPORT 1986 at 23; AMTRAK RESPONSE TO OMB, *supra* note 177, at 27.

296. *See, e.g., Reauthorization of Amtrak: Hearings Before the Subcomm. on Surface Transportation of the Senate Comm. on Commerce, Science and Transportation,* 98th Cong., 1st Sess., 1-2 (1983) [hereinafter cited as *1983 Senate Transportation Subcomm.*] (Statement by Sen. Ernest F. Hollings):

> As one who remains committed to limiting federal spending where possible, I am pleased that we have made significant strides towards controlling the federal investment in rail passenger service while at the same time meeting the nation's transportation needs. . . . After much debate, Congress provided a level [of funding] necessary

IV. CONCLUSION

To conclude, it is necessary to address three questions. First, does Amtrak produce the benefits Congress intended? Second, how does the cost of producing these benefits compare with their value? And third, what would be the consequences if Congress assented to President Reagan's demand that Amtrak be eliminated?

A. WHAT BENEFITS DOES AMTRAK PRODUCE?

The history and language of Amtrak legislation make clear that in addition to transporting passengers, Congress expected Amtrak to provide the following public benefits:[297] to maintain a balanced system of transportation in the United States; to connect urban areas and other parts of the country; to help end congestion on highways, in airways, and at airports; to provide freedom of choice to travelers; to transport passengers with a high degree of safety; to help conserve energy; and to provide an alternative system of transportation. Three studies (which were generally critical of Amtrak as a bad public investment) have provided the following information on Amtrak's delivery of these benefits.

1. AMTRAK'S ACKNOWLEDGED BENEFITS

a. SAFE TRANSPORTATION OF PASSENGERS

Professors Mulvey and Hilton each acknowledged that Amtrak transports passengers safely, especially when compared with the private automobile, which is the most commonly used mode of intercity transportation.[298] Although both disputed that Amtrak is the most cost-effective way to achieve a high level of passenger safety, neither Mulvey nor Hilton described Amtrak as unsafe.[299] The Congressional Budget Office made no findings on the question of passenger safety.

It is significant that two of Amtrak's critics acknowledged that Amtrak provides a benefit intended by Congress. Moreover, if Mulvey's analysis is correct, the benefit to society of reduced losses from accidents should

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for the continuation of a national system. At the same time, however, it mandated improvements by Amtrak in its financial and operational efficiency. I am pleased to see that through the significant efforts of Amtrak management and labor, progress has been made to this end.

More specifically, Amtrak has met its congressional mandate to cover 50 percent of its costs through its revenues, a goal which Amtrak has achieved through aggressive and creative cost-cutting and increased revenues—attained even with the current economy when ridership is down. Also, it has increased the number of passenger miles served for each dollar of federal investment, indicating a clear trend towards improved efficiency.

297. 1970 Act, *supra* note 29, § 101; 1979 Act, *supra* note 110, § 112; 1981 Act, *supra* note 89, § 1171.

298. MULVEY, *supra* note 7, at 60; HILTON, *supra* note 7 at 54.

299. MULVEY, *supra* note 7, at 60; HILTON, *supra* note 7 at 54.

increase if additional travelers choose Amtrak instead of their private automobiles.[300] However, Mulvey's estimate of the savings realized from prevented accidents may require revision to account for changing economic and social conditions.[301]

B. *Alleviating Highway, Airway, and Airport Congestion*

Professor Mulvey acknowledged that within the Northeast Corridor, Amtrak makes a positive contribution to reducing congestion on highways, in airways, and at airports by diverting travelers from these overburdened modes.[302] Neither Professor Hilton nor the Congressional Budget Office made any findings on this issue.

It should also be noted that as demographic and economic characteristics of urban areas changes, Amtrak service in other congested areas (e.g., Chicago or southern California) could become increasingly important in alleviating congestion problems outside the Northeast Corridor.

C. *Historical and Recreational Value*

Although the Rail Passenger Service Act findings do not expressly recognize historical significance or recreational use as benefits to be obtained from Amtrak, these benefits may be inferred from congressional determination to maintain a national passenger railroad system.

The Congressional Budget Office raised the issue of historical and recreational value, and conceded that Amtrak service "certainly offers recreational benefits and stands as an historic link with the nation's past."[303] Although such benefits are not readily measurable, the Congressional Budget Office concluded that the historical and recreational aspects of Amtrak are "of definite value to American life."[304]

2. *Disputed Benefit: Energy Conservation*

Professor Mulvey, Professor Hilton, and the Congressional Budget Office each found that Amtrak made a minimal contribution to energy conservation.[305] However, this conclusion should not go unchallenged. Im-

300. Mulvey states that diversion of travelers from less safe modes will result in a reduction in the annual toll of travel-related deaths and injuries. *Id.* at 60. It follows that if more passengers traveled by Amtrak instead of by automobile, there would be additional social savings due to reduced accidents.

301. Mulvey used the value of $300,000 per fatal accident. While this figure may have been useful in 1977, it should be adjusted to reflect current economic conditions. *See* MULVEY, *supra* note 7 at 60.

302. MULVEY, *supra* note 7, at 83, 92, 93.

303. CBO STUDY, *supra* note 7, at 22.

304. *Id.* at 22.

305. MULVEY, *supra* note 7, at 73; HILTON, *supra* note 7, at 52; CBO STUDY, *supra* note 7, at 15-17.

provements in rail equipment, the replacement of older equipment by equipment of recent design, and changes in Amtrak operations since the 1970s may affect the conclusion that Amtrak saves only a small amount of energy on the Northeast Corridor and none system-wide.

Data gathered in the early and middle 1970s would necessarily include data from older equipment received from the private railroads, which is likely to have been poorly maintained and which is unlikely to have been designed to achieve maximum energy efficiency. Amtrak did not begin introducing new equipment until 1975.[306] In addition, such data may also include data from several poorly-performing long-haul trains which Amtrak eliminated in 1979. Professor Mulvey's study was published in 1977, and therefore, must have relied on data derived from older equipment. The Congressional Budget Office study, although published in 1982, relied on earlier studies published in 1979 and 1977.[307] Therefore, the data used in these studies may be biased, and therefore should not be uncritically accepted as describing Amtrak's current ability to contribute to energy conservation. Additional research should be conducted to estimate Amtrak's energy conservation performance in the middle 1980s.

3. *Benefits Which Were Not Studied*

a. Amtrak's All-Weather Capability

In considering Amtrak's value as part of a balanced national transportation system, the Congressional Budget Office concluded that Amtrak's fleet was too small to be of significant value in national emergencies or during transportation crises caused by strikes or energy shortages.[308]

However, another aspect of a balanced system of transportation could be the ability to continue operating despite severe weather conditions, such as winter blizzards. Amtrak has demonstrated that its trains can continue to move passengers during blizzards after other modes of transportation (airlines, buses, and automobiles) have been curtailed.[309]

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306. Amtrak, Annual Report 1975 at 16.

307. CBO Study, *supra* note 7, at 14, footnote 3 referred the reader to "CBO, 'The Current and Future Savings of Energy Attributable to Amtrak' (May, 1979)." That report quoted from the following studies: Ram K. Mittal, 'Energy Intensivity of Intercity Passenger Rail', report submitted to the U.S. Dep't of Transportation, December, 1977; Northeast Corridor Improvement Project, 'Final Programmatic Environmental Impact Statement,' vol. 1, June 1978 p. 3-106; and A. B. Rose, 'Energy Intensity and Related Parameters of Selected Transportation Modes: Passenger Movements', Oak Ridge National Laboratory, January 1979." '

308. CBO Study, *supra* note 203, at 18-19.

309. *See, e.g.*, remarks of Sen. Malcolm Wallop: "For example, Amtrak is the only all-weather mode of transportation to and from Southern Wyoming. During the 1982 Christmas blizzard, Amtrak was the only means of travel across Wyoming's Southern tier. Sections of Interstate 80 were closed periodically during that severe storm." *1983 Senate Transportation*

This all-weather capability allows passengers to complete journeys which would have been interrupted if the passengers had chosen other modes.

It should be possible to estimate the value of this capability by techniques similar to Mulvey's. The savings would consist of the value of the traveler's time saved because the journey was completed, plus any savings realized from additional meals or overnight lodgings which the traveler was not obliged to purchase. Future research should attempt to estimate the savings which Amtrak produces in this manner.

B. SERVICE TO SMALL COMMUNITIES

Another apparent benefit which has not been studied is the value of rail passenger service to small, isolated communities. There are numerous such communities in rural America which would not receive any public transportation service but for the fact that they are located on railroad lines. Amtrak claims that of the 510 station stops it served in 1984, 94 had no airline service, 52 had no bus service, and 25 had neither airline nor bus service.[310]

The value of service to small communities may be great even though those communities have small populations and little economic strength. That the loss of service to small communities can be significant became apparent in 1983 when Amtrak re-routed its "California Zephyr" through Colorado, leaving the state of Wyoming without rail service for the first time in one hundred years.[311] In some isolated areas, Amtrak package express service is used to carry human blood supplies and other perishable commodities.[312] Although the Rail Passenger Service Act findings do not specifically mention service to small communities as an intended benefit, Congress did find that rail passenger service was necessary to connect urban areas with other parts of the country.[313] Therefore, future

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Subcommittee Hearings, supra note 296, at 3. *See also:* Welty, *Amtrak Under Siege,* 186 RY. AGE 37, 40 (1985).

310. *See supra* note 178. Recent service cutbacks by the bus industry may soon increase the number of communities deprived of public transportation. Horowitz, *Greyhound To Shut 35 Terminals,* Washington Post, Feb. 20, 1986, at E1, col. 3.

311. "Wyoming is a sparsely populated State with not quite a half million people living in 92,000 square miles, with varied geographic topography. Amtrak service connects 5 of the 10 largest cities straight across the southern tier of Wyoming that are not connected to one another by air service, and in some cases not even by bus service. These cities include Cheyenne, Laramie, Rawlins, Rock Springs, Green River and Evanston." Remarks of Sen. Malcolm Wallop, 1983 Senate Transportation Subcommittee Hearings, *supra* note 296, at 3; *see also* Schmidt, *Hamlets in Southern Wyoming Fear Isolation After Amtrak Shifts a Route,* N.Y. Times, Apr. 22, 1983, at A14, col. 2.

312. *1983 Senate Transportation Subcomm. Hearings, supra* note 296, at 6.

313. 1970 Act, *supra* note 29, § 101; 1981 Act, *supra* note 89, § 1171; 45 U.S.C. § 501(a) (1982).

research should attempt to estimate the value of service to isolated communities.

Thus, despite David Stockman's assertion that Amtrak produces no significant public benefits, this review of the Rail Passenger Service Act and the results of three studies show that Amtrak produces the following public benefits;

a. *acknowledged benefits*
    1. safe transportation of passengers
    2. alleviation of highway, airway, and airport congestion
    3. historical and recreational value
b. *disputed benefit*
    1. energy conservation
c. *benefits which have not been studied*
    1. all-weather passenger transportation
    2. service to isolated communities

B. The Cost of Obtaining the Benefits

Having seen that Amtrak produces a mixture of public benefits contemplated by Congress, the question follows: are these benefits outweighed by the cost of providing them? Professor Mulvey and the Congressional Budget Office, while willing to concede that Amtrak produced some public benefits, were quick to point out that the costs were disproportionate to the benefits realized, and that the investment of the same funds used for Amtrak in other programs could produce a greater return to the public.[314]

There is a conceptual difficulty with the analyses presented by Professor Mulvey and the Congressional Budget Office. Mulvey analyzed each of the purported benefits by deriving an economic value for each benefit and then comparing that value with the cost of providing the service (federal spending for a given year).[315] The Congressional Budget Office followed a similar approach.[316] The cost figures used were $741.2 million for 1976 and an estimate of $1.72 billion for 1990.[317] Mulvey compared these figures with the value of each benefit realized (airport congestion reduced, accidents avoided, etc.). In each case, the benefit realized was far less than the cost of providing the service. The conclu-

314. MULVEY, *supra* note 198, at 143; CBO STUDY, *supra* note 203, at 22.

315. MULVEY, *supra* note 198, at 43.

316. CBO STUDY, *supra* note 203, at 9-23.

317. MULVEY, *supra* note 7, at 180, projects that the 1990 deficit for Amtrak operations will be $1,720.5 million dollars, which would have to be made up by federal subsidy. "The projected 1990 operating deficit is large. This deficit does not include the capital grants and guaranteed loans needed to develop the Amtrak system to meet the 1990 demand. The benefits, where they exist, do not begin to cover operating costs, much less contribute to the recovery of capital costs." *Id.*

sion followed: Amtrak is a poor public investment because the cost of providing the service exceeds the value of the benefits obtained.

This conclusion should not be accepted uncritically. By estimating the value of each benefit separately and comparing that to the entire cost of providing Amtrak service, these analyses overlooked the fact that the benefits are produced jointly and simultaneously. It would be more realistic to state that in each year of operation, Amtrak produces a mixture of public benefits. In addition to transporting passengers, Amtrak service produces some savings due to accidents avoided; some savings due to airport, airway, and highway congestion reduced; some value in the form of recreation; some benefit from serving small communities; and perhaps, some energy conservation as well.

Professor Mulvey's study relied on the premise that each of these benefits could be measured and assigned an economic (dollar) value.[318] He stopped short, however, of taking the total of the benefits and comparing this with the total of the costs.[319] It is not clear why this could not be done, because the unit of analysis (dollars) is the same for both benefits and costs.

A future study could be constructed using the following reasoning: Amtrak produces a mixture of benefits each year; these benefits can be assigned dollar values through econometrics; the sum of the values can be compared with the cost of the program to determine whether the program is a good public investment.

If Mulvey's estimates for 1976 were aggregated and compared with the costs, the following would be the results:

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318. MULVEY, *supra* note 7 at 46:

> Whenever possible, performance measures are expressed by a common numeraire—such as the present value, in dollars, of benefits and costs. Two major types of analysis are attempted: (1) the cost of achieving a given level of performance through the rail mode is contrasted with the benfits produced; and (2) the costs and benefits of rail passenger services are compared with costs of alternative measures to achieve the same level of benefits.

319. *Id.* at 93. One argument in rebuttal of this position is that it is improper to examine the benefits separately. The interrelationship, for example, between congestion and air pollution is such that the combined benefit may be greater than the sum of the individual benefits. . . . Analyzing the impacts separately has its drawbacks, but it avoids complications and incongruities that otherwise would render investigation hopeless.

Table #1. The 1976 Cost/Benefit Comparison[320]

(millions of dollars)

Benefit	Cautious Estimate	Generous Estimate
highway congestion reduction	10.0	25.0
airport congestion reduction	1.5	1.5
accidents avoided	28.0	51.0
energy conservation	29.2	29.2
Aggregated benefits	68.7	106.7

If the federal government is thought to be purchasing these benefits by operating Amtrak, then it is proper to define as the federal "subsidy" only that portion of federal spending which is left after the benefits are deducted from total federal spending. Federal spending for 1976 was $741.2 million.[321] Although the government spent $741.2 million to operate Amtrak, it received either $68.7 million or $106.7 million back in benefits, depending on which estimate is used. Using the cautious estimate, the federal subsidy would be $672.5 million, representing spending of $741.2 million less benefits received of $68.7 million. Using the generous estimate, the subsidy would be $634.5 million, representing spending of $741.2 million less benefits received of $106.7 million.

If Mulvey's 1990 estimates are considered, the following results are obtained:

Table #2. 1990 Cost/Benefit Comparison[322]

(millions of dollars)

Benefit	Cautious Estimate	Generous Estimate
highway congestion reduction	100.0	200.0
airport congestion reduction	40.6	190.4
accidents avoided	88.5	188.2
energy conservation	244.0	244.0
Aggregated benefits	473.1	822.6

320. Benefits are taken from MULVEY, *supra* note 7 at the following locations: highway congestion reduction at 92; airport congestion reduction at 88; accidents avoided at 64; and energy conservation at 71.

321. The actual cost according to CBO was $651.2 million. CBO STUDY, *supra* note 7, at 26 (Table 2).

322. Benefits are taken from MULVEY, *supra* note 7 at the following locations: highway

Mulvey projected that in 1990, federal spending for Amtrak would be $1.72 billion dollars.[323] Using the cautious estimate of benefits, the government would spend $1.72 billion dollars, and in exchange, receive benefits of $473 million, and pay a subsidy of $1.247 million. Using the generous estimate, the government would spend $1.72 billion dollars, and, in exchange, receive benefits worth $822.0 million, and pay a subsidy of $898.5 million.

It is clear that if Mulvey's figures are used, Amtrak would still have to be considered a heavily subsidized program in which costs far exceed benefits. However, it has been shown that several benefits (all-weather operating capability and service to small communities) were not considered, and estimates for other benefits (highway congestion reduction, airport and airway congestion reduction, safety, and energy conservation) may have been artificially low. If the revised estimates of these estimates were computed, then the benefit side of the ratio is likely to be greater, and the gap between costs and benefits would not be so great. A future study, taking into account the problems noted here, might produce a significantly different cost-benefit ratio, and a different judgement of whether Amtrak is a good public investment.

In addition to the fact that benefits may have been underestimated, it should be remembered that the cost to the federal government of providing Amtrak has been falling since 1981.[324] None of the studies examined here considered the possibility that Amtrak could accept cuts in federal spending without drastically reducing service. However, that is exactly what happened; in 1987 federal spending for Amtrak was $602 million, down from $1.124 billion in 1981.[325] Despite gradually falling federal expenditures, Amtrak has not drastically reduced its operations since 1981.[326] If federal spending were to continue to decrease while benefits remained constant, then at some point, the cost-benefit ratio would turn positive. At that point, Amtrak would have to be considered a good public investment.

In weighing the costs and benefits of Amtrak, Congress should not rely mechanically on the earlier studies which have purported to show that Amtrak was a bad public investment. Congress should instead take note of four observations:

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congestion reduction at 176; airport congestion reduction at 174; accidents avoided at 158; and energy conservation at 164.

323. *Id.* at 180.

324. *See supra* note 192.

325. *Id.*

326. Amtrak's system-wide route mileage has remained stable at approximately 24,000 miles. *See supra* note 295.

1. the benefits of Amtrak should be considered in the aggregate when compared with the costs;
2. not all benefits may have been adequately estimated by prior studies;
3. empirical research is needed to provide accurate, up-to-date estimates of benefits; and
4. Amtrak's federal spending requirements are falling without a major reduction in service.

C. *THE CONSEQUENCES OF ELIMINATING AMTRAK*

Faced with a serious federal budget deficit, Congress could yield to pressure from the Reagan Administration to terminate funding for Amtrak.[327] Alternatively, the "Gramm-Rudman-Hollings Act"[328] signed on December 12, 1985 could compel major reductions in Amtrak funding resulting in the elimination of Amtrak operations.

What would be the consequences to the American public? Amtrak contends that its share of the Fiscal Year 1986 budget was 7/100 of one percent.[329] In return for this savings, what would the American public give up?

The apparent consequences fall into four categories:

1. the loss of rail passenger service to the traveling public and potential dislocations heavily-traveled areas;

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327. OFFICE OF MANAGEMENT AND BUDGET, BUDGET OF THE UNITED STATES GOVERNMENT (Fiscal Year 1988), H. R. Doc. No. 100-3, 100th Cong., 1st Sess. 2-45 (1987):

> Following on the sale of Conrail, the administration proposes that the Federal Government get out of the passenger rail business by severing its financial ties to Amtrak. The budget proposes to terminate all Amtrak subsidies and dispose of some or all of Amtrak's assets, the majority of which are in the Boston-to-Washington corridor, to one or more private sector companies, rail passenger organizations, or other entities. Such transactions will be designed to preserve viable intercity rail passenger services to the extent economically feasible. Despite providing the only intercity rail passenger service and a subsidy averaging $27 per passenger, Amtrak carried less than 0.5 percent of all intercity travel in 1985. The disposal of Amtrak's assets will generate offsetting receipts estimated to be $1.0 billion in 1988, which will partially repay the more than $12 billion in Federal subsidy already paid to Amtrak.

See also: R. Pear, *Reagan Budget Proposes Selling Part of* Amtrak, N.Y. Times, Dec. 14, 1986, at A1, col. 1. : It should be noted that the discussion of a private-sector buyer is purely hypothetical and speculative. The Reagan Administration's belief that the sale of the Northeast Corridor assets would "generate offsetting receipts" clearly ignores the statutory duty for labor protection payments to laid-off employees in the event of service discontinuances. It should also be noted that the Administration's statement that Amtrak carries less than 0.5 percent of intercity travelers ignores the fact that the share of any single carrier is tiny when compared with the entire market, and that Amtrak nevertheless carried more passengers in 1986 than Republic, Continental, or Trans-World Airlines (domestic operations). Finally, the Administration's reference to a $27 per passenger subsidy figure impliedly acknowledges the progress made by Amtrak in reducing its subsidy requirements, because as recently as 1985, President Reagan quoted a $35 per passenger subsidy figure in his State of the Union Address. *See supra* note 1.

328. Balanced Budget and Emergency Deficit Control Act of 1985, Pub. L. No. 99-177, 99 Stat. 1037 (1985).

329. AMTRAK RESPONSE TO OMB, *supra* note 177, at 1.

2. the loss of the collateral public benefits contemplated by Congress in the Rail Passenger Service Act;
3. liability to Amtrak and potentially to the United States Government for labor protection payments; and
4. economic loss to the United States Government from scrapping Amtrak's assets.

1. THE LOSS OF RAIL PASSENGER TRANSPORTATION

The elimination of Amtrak will have the obvious and immediate consequence of preventing the public from choosing rail passenger service as a form of transportation. In 1986, 20.3 million people used Amtrak to make their journeys. Particular groups (e.g., those who do not wish to fly, the elderly and handicapped, those who live in isolated communities not served by other carriers, and those who cannot afford automobiles) would be particularly affected.

The elimination of Amtrak would be felt most acutely in heavily-traveled areas of the country. Most frequently mentioned is the Northeast Corridor, but other transportation-intensive areas, such as Chicago and southern California would also feel the impact.

In the Northeast Corridor, Amtrak moves 17,500 people per day between Washington, New York City, and intermediate points.[330] If Amtrak ceased to operate, these passengers would be obliged to find other means of transportation, with adverse consequences to the transportation systems of the region.

The elimination of Amtrak could also affect rail operations on the Northeast Corridor right-of-way. Amtrak owns, operates, and maintains the right-of-way from Boston to Washington. This right-of-way also serves the commuter rail systems operated by several states.[331] Four freight railroads operate more than ninety through and local freight trains per day over the Northeast Corridor.[332] Amtrak contends that if it stops operating, these other users would have to pay $217 million per year to receive the same service they now receive for $53 million.[333] The result would be increased user charges for freight shipments on the Corridor and an increased burden on state-owned commuter railroads.

2. THE LOST OBJECTIVES OF THE RAIL PASSENGER SERVICE ACT

Congress recognized in the Rail Passenger Service Act that above and beyond the transportation of passengers, a national rail passenger

330. *1985 Senate Transportation Subcommittee Hearings, supra* note 178, at 62 (remarks of W. Graham Claytor, Jr., President of Amtrak).
331. *1985 Senate Transportation Subcommittee Hearings, supra* note 178, at 72.
332. *Id.* at 72.
333. *Id.*

system could provide additional benefits to society. The analytical section of this study concluded that Amtrak now makes a positive contribution in several of these areas. By eliminating Amtrak, the United States Government would be abandoning the public benefits of reduced highway, airway, and airport congestion; the savings realized from accidents avoided where automobile travelers chose Amtrak; energy conservation; an alternative form of transportation for use in severe weather or other emergencies; service to small and isolated communities, and Amtrak's historical and recreational value. In particular, Amtrak contends that the elimination of rail passenger service on the Northeast Corridor would have a severe impact on highway and air transportation in that region, and would require the construction of additional highways and airports at great cost to the public.[334]

3. *The Labor Protection Obligation*

Amtrak has approximately 25,000 employees, including 4,200 employees of contracting railroads, who would lose their jobs if Amtrak ceased operations.[335] The Rail Passenger Service Act provides that railroads (including Amtrak) must provide fair and equitable arrangements to protect employees affected by service discontinuances.[336] This provision would require payments to idled workers in the event of service discontinuances.

Amtrak estimates that labor protection payments would be $2.1 billion over six years if the entire system were shut down.[337] In the first year after termination, Amtrak estimates that its labor protection liability would be $645 million, approximately the same amount as Amtrak requested for its operating grant in Fiscal Year 1986.[338] Amtrak also contends that the liquidation value of its plant and equipment would not begin to cover the labor protection liability, and that the United States Government (which created the labor protection obligation in the Rail Passenger Service Act) would ultimately be liable for these payments.[339]

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334. *Id.* at 73.

335. *Id.* at 71.

336. 45 U.S.C. § 565 (1983).

337. The labor protection payments that Amtrak was required by statute to commit to pay to displaced employees will come to approximately $2.1 billion over a six year period. So in addition to $3 billion of investment [in assets] that gets scrapped, a new liability of $2.1 billion is assumed. In the first year, Amtrak's liability would be about $645 million, which is actually more than our total grant for operations in 1985, and more than we are seeking for operations in FY 1986. In addition, the railroads over which we operate would be subject to an additional labor protection liability of about $200 million over a six-year period.

1985 Senate Transportation Subcommittee Hearings, supra note 178, at 71.

338. *Id.* at 71.

339. David A. Stockman characterized the labor protection argument as "the most weak and

Thus, because the labor protection obligation is mandated by the Rail Passenger Service Act, and because the ultimate obligor for labor protection would be the United States Government, the elimination of Amtrak would not reduce federal spending or contribute to the reduction of the federal budget deficit.

4. *The Lost Value of Amtrak's Assets*

Amtrak's assets are currently worth approximately $3 billion.[340] These assets include locomotives, rolling stock, rail equipment, the Northeast Corridor right-of-way, stations, and other fixed facilities. If Amtrak's funding were terminated, then Amtrak would be forced into bankruptcy. Amtrak's assets would be liquidated to meet its obligations, including the demands of creditors, labor protection, and the liquidation preference on the preferred stock held by the United States Government. However, there is a question of whether liquidation of Amtrak's assets could cover the Corporation's liabilities.[341]

Amtrak contends that it is unlikely that there would be potential buyers for its assets, many of which are specifically designed for use in a national railroad passenger system.[342] Without buyers, Amtrak's $3 bil-

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pitiful of all" as a justification of continued funding for Amtrak. He dismissed the labor protection obligation "as a result of a collective-bargaining contract that provides 6 years of severance pay for each employee who meets certain criteria if they are furloughed." *Id.* at 23. Mr. Stockman contended that Amtrak had sufficient assets to pay its labor protection obligation in bankruptcy. *Id.*

Amtrak contends, on the contrary, that its assets would not be sufficient to meet its obligation, and that this view ignores the fact that Amtrak was obliged by statute to enter into contracts which provided for labor protection. *Id.* at 71. Amtrak further argues that the obligation to pay for labor protection would devolve on the United States Government because the United States Government created Amtrak and caused it to be an undercapitalized corporation. *Id.* at 71; *see also:* Letter to Paul F. Mickey, Esq. from Covington & Burling, dated April 1, 1985, Exhibit 1, at 75 *et seq.*

340. *Id.* at 71.

341. The liquidation value of Amtrak's assets, of course, would be totally insufficient to pay $2.1 billion of labor protection liability, quite apart from substantial other claims against, and administrative costs of, Amtrak's estate. As it becomes apparent just how little could be paid out of the estate, labor protection claimants and other creditors would turn to the only other source of funding—the United States government. *Id.* at 71 (written testimony of W. Graham Claytor, Jr., President of Amtrak).

342. For example, $2 billion has been put into the Northeast Corridor alone, with new equipment, new locomotives, and new facilities that are among the most efficient shops for passenger service in the world. . . . Our equipment would have relatively little market value if Amtrak were eliminated because its only use is for intercity passenger service. If there were no intercity passenger service, I believe our equipment and many of our facilities would have to be liquidated at approximately scrap value. Thus, although it would cost $6 billion to $9 billion today to reproduce Amtrak's assets, their liquidation value would be negligible. The proposed zero budget would utterly destroy a needed, going operation, and throw away most of the government's investment in Amtrak. *Id.* at 71 (written testimony of W. Graham Claytor, Jr., President of Amtrak).

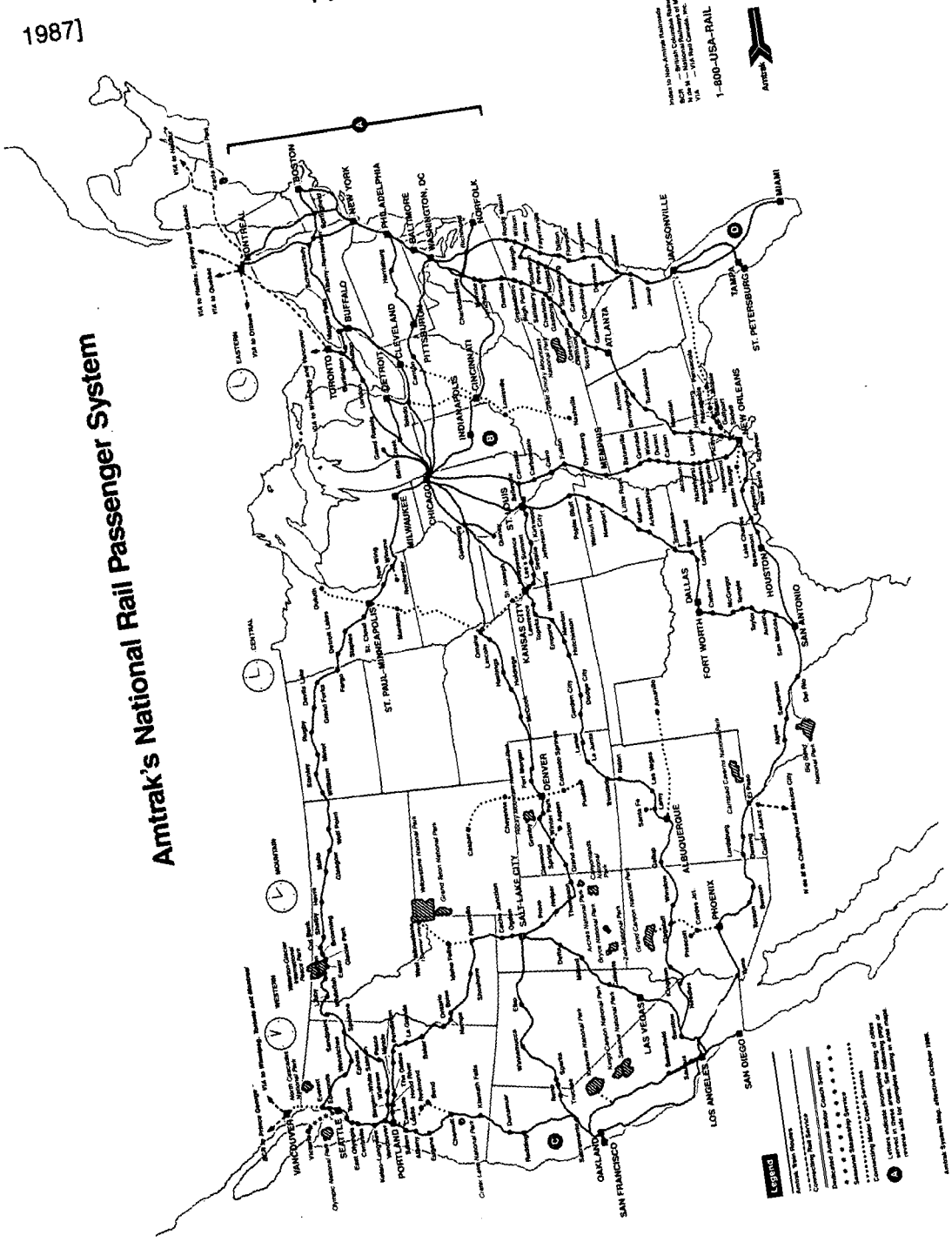
lion in assets would have to be liquidated at approximately scrap value. Even assuming a return of 50 cents on the dollar, the loss to the United States Government and the American taxpayer would be about $1.5 billion. Congress must consider, therefore, whether the putative savings from eliminating Amtrak are justified in light of the likely losses.

D. AFTERWORD

When the consequences of eliminating Amtrak are considered, it becomes clear that Amtrak is more valuable to the American public as an operating railroad than as a bankrupt corporation seeking to peddle its assets. Because Amtrak is subject to the labor protection obligation, and because its share of the federal budget is miniscule, it is an illusion to believe that by terminating Amtrak funding, the United States would make a major step toward reducing the federal budget deficit. The elimination of Amtrak would render useless the considerable investment which the United States has made in building a national railroad passenger system since 1970. Moreover, such a policy assumes—falsely—that the other components of the transportation system (airlines, buses, and the private automobile) can expand indefinitely to serve the traveling public.

Since 1981, Amtrak has been transporting passengers at a gradually falling cost. This review of Amtrak's history and several studies critical of the system has shown that in addition to transporting passengers, Amtrak has been producing the public benefits contemplated by Congress in the Rail Passenger Service Act. Further research is needed to provide an accurate estimate of these public benefits. However, a future-oriented transportation policy should recognize that the problems of airport and airway congestion, highway congestion, energy conservation, and the safe transportation of passengers will continue to require rail passenger service in the future.

The American public's interests would be best served by a policy which seeks continuing improvements in service combined with cost reduction. The objective of such a policy should be that total benefits (fairly measured) equal, if not exceed, total costs. This would be a different standard than "profitability," but it is a standard which is more appropriate to Amtrak's history and mission. Such a policy would be faithful to Congress' original intentions when it enacted the Rail Passenger Service Act of 1970, and would lead to a stronger, more efficient, and more valuable national railroad passenger system.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