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**National Conference of Critical Issues
for the Future of Intercity Passenger Rail**

NATIONAL CONFERENCE ON CRITICAL ISSUES FOR THE FUTURE OF INTERCITY PASSENGER RAIL

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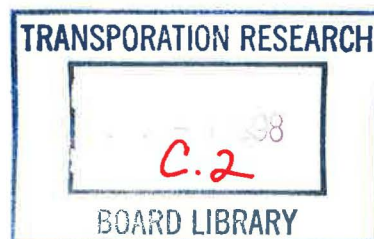
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INTRODUCTION

In June 1997, the Transportation Research Board (TRB) conducted the National Conference on Critical Issues for the Future of Passenger Rail, with cosponsorship provided by the National Railroad Passenger Corporation (Amtrak), Federal Railroad Administration (FRA), and the Environmental Protection Agency (EPA). The purpose of the conference was to explore the major issues related to intercity passenger rail services as a component of a national transportation system, including policy, financial, economic, environmental, societal, intermodal, and regulatory issues, and also to examine related international experience. Discussion of these issues was intended to provide a broad perspective on existing and planned intercity passenger rail services for decision makers involved in providing, supporting, and regulating these services.

To ensure representation of a variety of perspectives, approximately 170 invited, prominent professionals from industry, academia, and all levels of government participated in the conference. (A list of participants appears at the conclusion of this Circular.)

A steering committee appointed by the National Research Council (NRC), with a balanced membership of individuals representing the relevant disciplines and organizations, planned and conducted this conference.

Background

For the past 25 years, intercity rail passenger service in the United States has been provided by the National Railroad Passenger Corporation, operating as "Amtrak", a government-owned corporation created to assume operation of declining intercity rail passenger services from private freight-dominant railroads. Amtrak has received significant federal and state funding to upgrade the Northeast Corridor and other facilities, purchase and maintain equipment, and provide corridor and long-distance services. Yet, continuing undercapitalization and a poorly defined role for Amtrak as part of the national transportation system have made it difficult for Amtrak either to reach profitability and financial independence or to meet fully the social responsibilities imposed upon it.

The passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991 brought into sharp public focus the importance of integrating all modes of transportation into a "system" for both passenger and freight uses. The system concept is based on recognizing the

efficiencies of each mode and utilizing those efficiencies to provide a cost-effective, environmentally sustainable, intermodal transportation system. The role that passenger rail should play in this system continues to be ambiguous, however, and the unpredictability of Amtrak's federal operating and capital funding reflects this ambiguity. Amtrak is now faced with dual Congressional mandates: one demanding profitability by 2002, while a conflicting mandate directs the corporation to maintain the poorest performing routes.

The promise of high-speed rail to provide more competitive trip times versus air or automobile travel is the basis for Amtrak's recent order for new equipment for the Northeast Corridor and for upgrading and electrifying the New Haven-Boston segment. Similarly, states with densely traveled intercity corridors in which traffic growth is projected to continue are looking to rail services as a way to increase capacity while minimizing infrastructure costs. Trade-offs in costs associated with different modes—both capital and operating—are being analyzed to justify public expenditures, requiring new planning methods and in many cases a new philosophy for how transportation services should be provided.

Conclusions

Although much of the discussion focused on the short-term funding issues critical to Amtrak's continued operation, the conference concluded with general recognition of the importance of rail passenger service in the United States. There was also recognition of the need for a research agenda to be developed and a commitment of sustained support of resources to implement the agenda to determine the longer-term role of intercity passenger rail as a mode of transportation, encompassing more specifically directed research in issues such as economics, institutional structure, financing and risk sharing, and relations with freight railroads.

Follow-up Activities

Several of TRB's standing technical committees are developing a research agenda based on the research issues identified at this conference. This agenda will be widely disseminated to the appropriate organizations that sponsor and conduct research to encourage the further exploration of these critical issues.

CONFERENCE SPONSORS' PERSPECTIVES: ENVIRONMENTAL PROTECTION AGENCY

David Gardiner

U.S. Environmental Protection Agency

EPA is delighted to co-sponsor this conference, even though it may seem, at first glance, that the future of intercity passenger trains is a little outside our area of interest. Believe me, it isn't. The future of passenger trains is critically important to the future of our national transportation system, which in turn is critically important to air quality, which in turn is critically important to human health. Thus the linkage between passenger trains and EPA is direct and clear. We can't achieve our goals unless you achieve yours.

EPA's interest in passenger trains is relatively recent, to be sure. For the first 20 years of EPA's existence, our main transportation-related responsibility was controlling the pollution emitted by cars. The American people insisted on those controls, because they knew that cars were a primary source of the air pollution choking most American cities. The catalytic converters worked well, and today a new car emits less than ten percent of the air pollution emitted by a new car in 1970.

But our urban air pollution problems haven't gone away, and cars are still the single biggest cause. Why? Because more people are driving more cars more miles than ever before. Even as we made cleaner and cleaner cars, we poured more and more miles of concrete for highways that made room for more and more cars. As a result, end-of-pipe controls on cars have not resulted in all the health benefits once expected. Almost 60 million Americans still live in areas with unhealthy air.

Bad air isn't the only environmental problem linked to car-dependent transportation systems. Our ever-expanding highways are carving up neighborhoods, destroying wetlands, and contributing to water quality problems and flooding. And in many cases they appear to be self-defeating. Though new highways were meant to move people and goods more quickly, congestion on those highways in fact slowed things down. The faster we poured the concrete, the slower we moved. Today the economic losses associated with highway congestion—the lost time, the wasted gas, the wear and tear on cars—may be as high as 80 billion dollars a year.

President Clinton likes to talk about the bridge to the future. As Americans approach the bridge to the 21st

century, we're finding that it's clogged with cars. If everyone tries to get over that bridge in a single-occupant vehicle, some people aren't going to reach the 21st century until some time in the 22nd.

What our modern transportation system really needs is alternatives. If we want to travel quickly, if we want to move people and goods efficiently, and if we want to breathe clean air and protect ecosystems at the same time, then we have to give people choices. People don't like to sit stranded in traffic jams while they suffer asthma attacks. If other options are available, people will take them. It's the responsibility of everyone here today, including those of us from EPA, to make sure that options are built into the nation's transportation system.

Intercity passenger rail is one of those options. And in high-density areas like the northeast corridor, intercity passenger rail may be the single most important option. The system is already in place, so we usually don't have to worry about the environmental costs of expansion. Increased use of the system can help reduce region-wide air pollution, and thus provide near-term health benefits. By getting some people out of their cars, passenger trains also can provide a big benefit for highway traffic by reducing congestion. Since railway stations, particularly the older ones, are often located in older urban centers, increased passenger traffic can help resuscitate the economies of cities. Intercity passenger trains are another example of how thoughtful, well-planned economic development can be a boon to environmental quality.

This kind of thinking is built into the Administration's position on NEXTEA. We want to see more money available for transportation options other than highways, options that help improve air quality while they reduce congestion. We support retention of the Congestion Mitigation and Air Quality Program, with an increased budget. If fully funded, CMAQ could reduce air pollution by more than a million tons a year by the year 2005. The Administration's NEXTEA proposal also would allow states and local areas to use federal funding for Amtrak, if that's seen as a transportation priority.

Like the rest of you, EPA loves passenger trains and the benefits they bring to travelers and the environment. I hope to see a lot of train traffic on that bridge to the future. Thank you.

CONFERENCE SPONSORS' PERSPECTIVES: U.S. DEPARTMENT OF TRANSPORTATION

Mortimer L. Downey
U.S. Department of Transportation

Thank you, Mike, for that introduction, and for your service as chair of this conference's steering committee. I also want to thank our co-sponsors—TRB, Amtrak, and the EPA—and I also want to thank the American Rail Passenger Coalition for its cooperation in making this conference a reality.

I'd like to start by bringing you greetings from Secretary Slater. The Secretary is working to promote President Clinton's goal of a balanced, intermodal transportation system, one which is safer, more efficient, and less polluting, and doing that naturally includes supporting intercity passenger rail.

We've fought for the funding Amtrak needs, upgraded the Northeast Corridor, made rail safety a national priority, and supported high-speed rail research and development. That builds on a commitment which the Department of Transportation inherited at its founding 30 years ago, a commitment which is as strong now as it was then.

With work on the \$3 billion Northeast Corridor high-speed project moving towards its 1999 completion, we're about to see the best evidence yet of that strategy's soundness. The high-quality service that has already resulted on the southern end of that heavily-traveled corridor has enabled Amtrak to be a viable option for travelers, reducing the pressure on highways, airports, and air traffic control systems.

Amtrak, of course, is the foundation of American intercity passenger rail, and the NEC upgrading is only part of our support of its efforts to build for long-term success. And under Tom Downs' leadership, Amtrak has moved aggressively to reinvent itself over the past few years.

Amtrak has increased its focus on customer service, responding to market demands and realities. It has reorganized to cut costs and to improve service quality, restructuring into separate business units that are closer to their customers and more sensitive to customer needs.

Amtrak has strengthened its relationships with the states which it serves, and they've responded by increasing their support of rail; state funding of Amtrak nearly doubled between 1995 and '96. Amtrak has used its federal and state funds well, investing in new equipment and upgrading its facilities, reducing maintenance costs and improving reliability. And it has pursued entrepreneurial opportunities, such as mail and express freight services, whose revenues can support its primary mission of passenger operations.

At the urging of the President and Congress, Amtrak

adopted a strategic plan that calls for it to eliminate its dependence on federal operating support by 2002. That's an ambitious goal, but one that's achievable. However, Amtrak can't do it alone. Amtrak needs the support of the Congress, the President, the states, the private sector, and its employees to fulfill the strategy: to continue invest capital to enhance its operations, end its reliance on federal operating assistance, and thrive over the long-term.

The federal commitment is seen in NEXTEA, President Clinton's six-year, \$175 billion proposal to reauthorize the federal surface transportation programs which expire later this year. Although highway and transit programs have been the focus under the ISTEA legislation, its successor gives us a chance to make our programs truly intermodal, and to give intercity rail the sustained support it deserves.

Nearly \$4.8 billion in federal funding would be provided over the next six years to enable Amtrak to continue upgrading equipment, facilities, and service. For the first time, that aid would be provided from a stable and continuing source: contract authority under the Highway Trust Fund. In addition to direct allocations to Amtrak, such provisions as continued support of grade crossing improvements and eliminations would support intercity service.

NEXTEA also would expand the eligibility of most of our funding programs, such as the National Highway System, to include publicly-owned rail infrastructure and other capital investments. This flexibility would let states invest in the projects, including Amtrak projects, which make sense for their own needs.

It's clear that this is the right way to go. I mentioned earlier that state support for Amtrak has nearly doubled. We see success stories from coast to coast: Vermont's support of service over the Vermont routes to Montréal has been so successful that another line has been added. State-supported service between Portland and Seattle has seen a 45 percent rise in ridership. Texas, North Carolina, Illinois, Wisconsin, Missouri, California, and New York all are directly supporting Amtrak service within their borders, because they can see its benefits on a daily basis. NEXTEA would enable states to use federal money as well as their own funds for these services, further leveraging support for Amtrak.

Rail also could benefit from the expansion of our existing state infrastructure bank programs. SIBs, as these banks are known, use federal seed money to leverage private and other nonfederal resources for capital projects, and NEXTEA would establish a continuing source of funding:

\$900 million over six years to capitalize the banks or instruments for revenue-based financing.

Our proposed Infrastructure Credit Enhancement Program would offer credit support for major projects of national significance, especially those which cross state lines. Under this program, NEXTEA funding could help project sponsors to lower the interest costs of construction-related debt, improving the economics of rail projects.

NEXTEA also would continue our support of high-speed rail research and development, authorizing about \$118 million over the next six years. That would continue the work on advanced train control systems we and our partners have been carrying out, work which also could increase the safety, efficiency, and effective capacity of today's passenger and freight operations.

Put together, NEXTEA's proposals build on the foundation we've laid over the past several years. Last month we proposed a second legislative initiative that complements NEXTEA. The Amtrak Restructuring Act would reduce statutory burdens to enable Amtrak to become more entrepreneurial. For example, we want to empower Amtrak to make more of its scheduling, route, and service decisions on its own, based on its business needs.

We want states to have the right to enter into multistate rail service compacts that would support corridor services, something which now requires Congressional approval. We want Amtrak and the states along the Northeast Corridor to have the right to determine a more equitable sharing of operating costs between Amtrak and the commuter trains which run over its tracks. And, when Amtrak achieves operating sufficiency, we want to relieve it of a number of federal requirements which have been linked to that aid.

This bill also includes reauthorization of the Swift Act high-speed rail technology development program, which, as I mentioned, would be funded through NEXTEA.

What's also important is what is *not* in our proposal: measures which could reverse the evolving partnership between Amtrak and its unions. We don't want to see the wholesale repeal of the protections developed over the years

between management and labor. Instead, we're optimistic that the ongoing reforms to seek, and share, savings through better work practices can continue to reduce operating costs, and that such a voluntary effort is more productive in the long run.

Together, our Amtrak and NEXTEA proposals can put "America's railroad" on the path to success. Strong federal leadership is vital, but it can't by itself ensure rail's future success in America. That's why this conference is so important, and why your contributions are so vital. You can help to create the partnerships which bring together the private sector and all the levels of government—federal, state, and local—whose participation is necessary for us to achieve success.

That means the kind of partnerships we already see between Amtrak and its unions, partnerships in which each side cooperates and both move towards shared goals. I hope all of you will make your voices heard in the debates over NEXTEA and Amtrak restructuring, so that Amtrak can have the tools it needs to provide passenger services into the next century.

All of this is so important. Americans long depended on passenger railroads to meet their mobility needs. While we let the role of such services diminish after this century's midpoint, we're now seeing their renaissance, and that's the foundation for the rail systems of the new century.

We believe that rail operators and private entrepreneurs can, and should, work in partnership with all levels of government to ensure that we can meet our transportation challenges in the 21st century and beyond.

I congratulate you on coming together at this conference. Interested parties such as yourselves can, and must, play an important role in this effort, helping us to develop the passenger rail services that will enhance America's mobility. We look to you to help us make this a reality.

Let me close now by thanking you for your commitment to passenger rail, by encouraging you to stick with it, and by wishing you all good luck in your work. It's so very important to all of us. Thank you.

KEYNOTE ADDRESS: THE VISION FOR INTERCITY PASSENGER RAIL IN THE UNITED STATES

*Governor Jim Florio
Florio, Perrucci, P.C.*

I am honored to give the keynote address on the basic question: what is the vision for intercity rail passenger service in this nation. The quick and dirty answer is that the vision is hazy, the vision is cloudy. I think that, in some respects, reflects the contradictory views that we all have about some of the factors needed for a full commitment to rail passenger service.

In the introduction it was stated that one of the things that I do is I teach. I teach at the Bloustein School at Rutgers, the school for public policy. And I enjoy that very much. It gives the opportunity to step back a little bit and take a look at the big picture from a detached vantage point. I think in that capacity, particularly over the last couple of years that I have been out of public service, the overriding observation that I would share with you is that the change we are experiencing in this country, in this society, is just monumental.

Change is always there, but there are periods of time when change is so dramatic and so complex and so rapid, that it is a period of historic change, and I would suggest to you that this is one of those times.

Pick the sector: health care, financial services, telecommunications; we are getting ready for electric utility deregulation. All of those areas and every other area are going through these periods of change, and that type of dramatic change, results in dislocations, disruption, and that of course always results in some stress.

So you can maintain, and I think it is legitimate to say what it is that we are about is trying to manage change to be able to avoid some of the instability that comes from high degrees of stress. It is not easy at this point, because there is not a national consensus on direction or goals as we work our way through this period of complex change.

The best example of all of this is the general economy, where here, 15, 20 years ago, we would talk about this being a labor-intensive, manufacturing-oriented national economy, and today, of course, we would describe the economy as capital-intensive, service-oriented, knowledge-based, part of an international economy. Decisions, in some respects, that are made overseas have as much impact upon our well-being as decisions that are made here in the nation's capital.

Today, in an export-driven economy, we have to have a fully-integrated, intermodal transportation system that allows us to maximize our resources. It is not just a luxury, it is absolutely essential if we are going to be a productive

economy, capable of competing in the international trade arena.

The authors of ISTEA understood that concept, even sought to establish a national transportation plan. That has not moved forward very rapidly. But the concept was to understand what the national items of significance were, even what major regional transportation resources were, so that when it comes time to think about allocating funding for infrastructure reimbursement, we would at least have a rational plan for doing so.

There was also an understanding in ISTEA that we need a rail passenger service component of an integrated transportation system for all of the reasons that are obvious to an audience such as this. One of those reasons is congestion mitigation, not just to avoid the aggravation of perpetually being struck in traffic, but also to facilitate the movement of goods. Obviously, the movement of goods is inhibited by the gridlocks that we face in so many of our areas, and that detracts from our productivity.

Other reasons for an integrated transportation system are the environmental protection aspects of rail passenger service that were talked about; the energy efficiency aspects; and the desire to provide mobility for whole sectors of our population who, but for rail passenger service, would have their mobility diminished dramatically.

Notwithstanding all of these meritorious arguments for investment in rail passenger service, some of the dramatically changing conditions that I have alluded to do not necessarily work in the interests of rail passenger service. The major characteristic of these times is the mobility of capital. You push a button, and capital moves around the world in a heartbeat.

There is not a lot of patient capital around. We have had some examples in the last few years where someone wakes up one morning, does not like the economic conditions in Mexico, everybody pushes the button, we defund Mexico, and we have serious economic consequences as a result.

Now capital flight is something we should be very much aware of, particularly when we are talking about things like rail passenger services that are by definition, capital-intensive, but perhaps not yield the same rate of return on investment as alternative or competitive uses for capital.

In the past, in recognition of that fact, the public sector was looked to as the place that would make the major contributions for capital needed by this public service enterprise. It was talked about, as some of the speakers previously talked about this as a very important public service.

Here in Washington with this audience, I do not have to tell you that things have changed to the point that providing for public capital is not something that happens easily anymore. We have taken on an almost religious-like commitment to balancing the budget, whether it makes sense or not, whether we are investing or dis-investing, but we are clearly on that glide path, and there are consequences.

Unfortunately, as we all know, transportation is part of the discretionary portion of the budget that disproportionately takes the hits on that glide path toward a balanced budget.

In this era of change one of the concepts that is in vogue is revolution. This is the idea of shifting responsibility for things that used to be thought of as national goals and responsibilities back to the states. And I can tell you, the states are in the process of figuring out how they can shift them back to the counties and to the localities.

I will also share with you my perspective that a lot of the governors—many governors across the board, Democrats or Republicans—are beginning to understand. They have been given in the context of devolution, the responsibility to figure out how they allocate the pain. They are starting to lose a little bit of enthusiasm for the concept of devolution, in area after area after area, and they are also coming to understand that if they are having this much difficulty, and these are the good times, what do we do when things soften up a bit?

Another characteristic of these times, a little more difficult to quantify, is that the public's expectations are changing. The public demands better and better service and is much less tolerant of the concept of pain for the service. That is part of human nature. We all like the new car in the driveway, but we do not like the payment booklet. I would just share with you that there appears to be a tendency to have that characteristic even more pronounced in these times, and I think that is in part an aspect of the stressful nature of the times that I alluded to earlier.

Another concept that is in vogue is privatization. We hear a lot about it, and privatization is offered as an answer to many of the problems that flow from the consequences of public disinvestment in so many areas. My view has always been that privatization is not as bad as some of its detractors suggest, nor the panacea that some of its supporters maintain. There is a need for a site-specific, case-by-case analysis to determine its appropriate use.

In the case of rail passenger service, one thing is becoming clearer. Proposals that advocate privatization will not obviate the need to maintain current levels of public financing, unless of course we want to start dismantling the systems that are being financed. The privatization of the British Rail system is a wonderful case study, from the proposition that we should disabuse ourselves of the belief that the private sector is not going to want public sector monies to operate rail passenger services.

The conclusion of a number of studies that looked at the British Rail experience was that privatization of some of the more profitable lines resulted in the inability to cross-subsidize other lines. The House of Commons concluded in one study that it is highly likely that the overall cost to the taxpayers of the privatization process would undoubtedly rise. So, then, all I am suggesting is that the preliminary conclusion on privatization is that it is not an unmixed blessing and will not meet the expectation that you are going to wean the system off of public sector funding.

I have thrown all of this contradictory clutter at you, that I think is a symptom of the current dislocating times. The interaction between the Administration and Congress is clearly illustrative of the fact that we are all groping around to figure out what the path is, to be able to move to the next level. This is a transitional period that we are in.

What I wanted to do is just offer you a framework for perhaps some strategic thinking about transportation that may be useful. In order to develop a vision for the future of rail passenger service, it is necessary to undertake an evaluation of the problems and shortcomings of the existing systems and the opportunities to overcome those shortcomings.

Additionally, a determination as to the future demands and requirements of our rail passenger systems must be undertaken. After such an analysis, it would be possible to establish some clear sets of goals for the future. Steps for realizing those goals can then be introduced and evaluated for their potential contributions, risks, and costs. Once implemented, the final aspect must be a system of metrics to ascertain the progress towards the goal and the vision.

Current initiatives seem to indicate that we are moving towards such a framework of strategic planning. I think that is commendable, and today's event is a manifestation of this continuing process that we are moving towards.

Let me say a word about Amtrak, our current national rail passenger system. There are those (and I have been interacting with some of them recently) who regard Amtrak as beyond rehabilitation, who regard Amtrak as structurally and systemically flawed, incapable of being modified, and would therefore like to scrap the system and start all over.

They would say that we should create new systems, new joint venture systems with private sector/public sector, new public sector, new private sector, whatever. Others, and I include myself in this category, maintain that Amtrak represents a significant public investment and intellectual commitment, and includes existing assets, structures, and organization that may simply need to be enhanced, supplemented, improved, given some degree of certainty, particularly on the capital side, in order to provide efficient, viable passenger service for this nation, on a national basis.

Tom Downs has brought a new and a different type of leadership there, and I suspect that is largely responsible for

some of the improvements that we have seen in the last few years.

There have been some key initiatives aimed at meeting the public's needs and expectations for the system by improving revenue and gaining some operating efficiencies. Amtrak has been reorganized, and the reorganization was important because it tapped into a sense of more accountability.

The reorganization into independent operating units was designed to focus efforts on similar product offerings (short versus long-distance service), similar markets, similar infrastructure needs, and similar customer demands.

Key business developments have been made with Amtrak entering into partnerships that some are advocating as appropriate for a new entity that might be created. The interaction with the states has been particularly beneficial. Private sector partnerships are already underway. For example, negotiations are taking place with representatives of the gaming industry for Las Vegas to Los Angeles service. Also, Greyhound and Amtrak apparently have already entered into an agreement whereby Greyhound is providing connecting bus service to communities not serviced by Amtrak. A multi-modal initiative towards improved service is something some of us have been talking about for a very, very long period of time.

Amtrak, as we know, to the consternation of some, is in the process of restructuring its routes and service to adjust for market changes. The marketplace forces are being considered in the decision-making process. Some services are being reduced or even eliminated on less cost-effective routes and service is being increased where demand dictates.

Daily service is being established in the markets where it is required, and most importantly, within the framework of a national transportation system. Other initiatives underway to support the system are express service, utilization of the (electric) power resources. Perhaps most significantly is Amtrak's initiative to introduce high-speed rail to the Northeast Corridor by the year 2000 and a case study for other corridors in the nation.

My final concluding point is that, all the factors that I have just alluded to are complicating the ability to come together with our analysis as to what we want the future to be for rail passenger service. There are confusing and conflicting factors. It is important that we focus on a framework for analysis that I touched upon, and that will determine what the vision of our rail passenger service will become. I hope it will be a good vision for a quality of rail service that a great nation deserves. Other nations that have rail passenger services have a much greater commitment to maintaining that service as a service, and this analysis process that we are going through in this nation right now, is one that I hope will bring us to that point.

I am cautiously optimistic that we are going to get there, and that optimism is as a result of seeing all of the disparate things that are going on now. The Congressional Amtrak Review Commission that I serve on is attempting to look at some of these issues. The Federal Railroad Administration is doing some very good work in its high-speed rail program and high-speed ground transportation feasibility study under Jolene Molitoris' direction.

NEXTEA we have heard about, ISTEPA we have heard about. There are programs going on all around the nation to try to think through how to provide a very important rail passenger component of a fully-integrated transportation system that is essential for us to be a productive, competitive economy in the international arena.

This program is a very good example of what it is that is happening around the nation, so I want to just say that I look in the audience and there are many people that I have worked with over the years, focusing upon transportation needs, and particularly rail passenger transportation needs, and I commend all of you for offering your intellectual energy to try to help all of us as a nation work through these programs to get us to the next level, and that next level will be a national rail passenger system that we in this nation deserve and meets the quality of all the other expectations that we have for things in this nation.

PASSENGER RAIL TODAY: INTRODUCTORY REMARKS

Louis S. Thompson
The World Bank

Amtrak was founded nearly 30 years ago, partly as a result of the failure of a number of federal transport policies. Most notable was the utter failure of rail regulation, especially cross-subsidizing rail passenger services with the income from rail freight operations. That policy was pursued for many years past the point at which it was absolutely clear that the ICC was destroying the freight railways in the process. Moreover, while Federal promotional policy supported highways, water and air, the lack of a rail promotional policy almost perversely detracted from the ability of the freight (and passenger) railways to operate competitively.

The results of the failure of federal policy were clear: the bankruptcy or near bankruptcy of major private freight railways and poor passenger service that was costing the private freight railways dearly and serving the potential users badly. We had the worst of both worlds: high costs *and* bad service. Something had to be done to relieve freight railways of the burden of passenger service and give passenger service a chance to stand or fall on its own merits.

For a lot of reasons to be discussed during the conference, including a slowly growing but relentless financial crisis at Amtrak, we now need to review the bidding and see if there is a better answer. As we do so, however, we ought to summarize what we do know. What has the evidence shown us about passenger service and about the establishment of Amtrak? I would like to make three observations, as follows.

First, the evidence has shown that we *did* save the freight railways. I will argue that the freight railways and their role in the economy are far more important than the issues of passenger services in the U.S. Rail freight services in the U.S. are the real generator of economic activity, and we cannot allow discussion of rail passenger service to distract us from the fact we have the best freight railways in the world as a result of revised regulation since the Staggers Act that allows them to compete in the private market.

Second, adverse promotional policies have only been partly solved. We have spent \$20 billion or more on Amtrak, but gas is still cheap, and so is diesel fuel. Even so, the multiple of spending on highways and airways over what we spent on Amtrak since 1971 is quite large.

Finally, Amtrak is simply not the success we had hoped for.

Why is Amtrak not a success?

Some possible reasons are unrealistic expectations, unfair expectations, pork barrel politics, and a misfit between mission and resources. It was unrealistic to expect that Amtrak would make a profit, and that expectation laid the stage for an unrealistic evaluation of Amtrak's subsequent performance. It was unfair to expect a company to meet several different goals at the same time, some of them contradictory, and some in competition with companies not burdened with similar requirements. After Amtrak was created, its route structure did not stay out of the political pork barrel for long. Many of the arguments about what Amtrak could do as a rational transportation system came under attack as a result, and rightly so. Overall, the key issue that should be raised is the clear misfit between the expectations for Amtrak's performance and the inadequate resources it has been given.

Elements of a new synthesis

Can Amtrak fix the situation by itself? No, Amtrak cannot deal by themselves with the conflicting issues that they face.

The "vision" cannot be more of the same. Some of the elements of a new synthesis are as follows:

- An agreed role and mission for Amtrak must be developed that meets a transportation or a social need for which we are willing to provide stable funding every year
- Clearly that need can be shown in the Northeast Corridor.
- The need can also be shown in many of the short-haul routes where environment and/or congestion relief are important.
- Still open to discussion is the value to this country of the longer-haul passenger services. This question must be confronted, and if we decide, as we have in the past, that we should preserve those trains, then we need to establish how are we going to fund them in a way that permits rational management.
- It is time to review the state/federal balance. It is fair to question if the federal government should be solving local problems which could be better solved at the local level, and vice versa.
- A larger role for the private sector should be considered. In the World Bank, we are seeing that the role of the government in delivering services can sometimes be better carried out by the private sector. The question is whether

there is a better mix for Amtrak between the public sector and private sector.

- Stable funding from the public sector is required. If there is no stable funding, there cannot be stable management. There cannot be responsible management if investment programs take 5 to 10 years, but the longest funding horizon is 6 months to one year.

- Finally, there needs to be clearer definition of benefits of passenger rail service. Why do we have it? Who wants it? Who is willing to pay for it?

What might the new Amtrak look like?

Leaner and meaner. Partnerships with states and local agencies will be strengthened, and the states will have a greater

role. Amtrak will engage in more private sector activities, either through subsidiary services or actual contract provision of operating services. Rail passenger service will have a future that people can believe in—service agreed upon and supported stably and reliably into the future. In this process, we will consider the European model. Europeans, having worked themselves into their own financial “train wreck” with their railways, are now asking the questions and have come up with imaginative ways of solving the problems and providing service. The panel will now deal with these issues.

THE INCREMENTAL APPROACH TO INTERCITY CORRIDOR RAIL PASSENGER DEVELOPMENT: PACIFIC NORTHWEST CORRIDOR UPDATE

James H. Slakey
Washington State Department of Transportation

Washington State, in partnership with Amtrak, Burlington Northern Santa Fe Railway (BNSF), the Federal Railroad Administration (FRA), Oregon, British Columbia and local communities, is leading efforts to incrementally improve intercity rail service along the Pacific Northwest Rail Corridor. Our goal: carry 2.2 million people 500 million miles per year with no traffic congestion, no auto emissions, improved safety and no operating subsidy. We've successfully taken the first steps. This paper will outline why this region is pursuing the incremental approach to improved intercity rail, what we've delivered for our customers, and a detailed update of what we intend to achieve in the coming years.

THE BIG PICTURE AND THE INCREMENTAL APPROACH

Approximately 7.7 million people already live along the Vancouver, BC–Seattle–Portland, Oregon–Eugene Pacific Northwest Rail Corridor. With 100,000 new residents per year in Washington State alone, intercity travel along this corridor is projected to grow 75 percent during the next twenty years. With growing populations and thriving businesses, the simple fact is that we need to make improvements to *all* of our transportation systems, including rail, to keep people and goods moving.

Our studies told us that a dedicated 185 MPH passenger rail corridor, electrified or not, would be prohibitively expensive for this region. Pacific Northwest taxpayers and policymakers won't pay up to 20 billion dollars for a rail system that a) wouldn't carry its first passenger for decades and b) would require huge operating subsidies because we don't have the population density to support a "bullet train".

There was, however, another solution for our needs: an incremental approach to rail improvements.

We chose to pursue step-by-step improvements to the existing rail system, with passenger trains using high speed non-electric locomotives to travel at speeds up to 125 MPH while sharing the tracks with freight trains. This idea works for us, in part, because existing rails travel through population centers; we leverage our investment by partnering with freight railroads and other private companies and communities; we don't have to acquire a lot of expensive right-of-way; technology, including trains that can handle our curvy tracks,

is available to allow significantly higher speeds and help us reduce travel times with reduced infrastructure investment; policymakers (and the taxpayers they represent) have plenty of control; and as we invest in rail improvements, travelers benefit immediately.

In testimony before the Washington State Legislature, D.J. Mitchell, Assistant Vice President of Passenger Services for BNSF, indicated that the railroad believes that this program can work, and cited examples in Chicago and California where large volumes of freight and passenger trains coexist. This assessment was based, in part, upon WSDOT and BNSF computer simulations of future Pacific Northwest Rail Corridor traffic. These simulations identified problem areas and projects to solve these problems.

The rail system analysis concluded that operating and capital improvements to provide dramatically improved intercity rail passenger service and to accommodate growing freight needs would require a total investment of \$2.9 billion during the next twenty years. Washington State's twenty year transportation plan currently includes a significant share of funding for this project. Contributions from the railroad, Amtrak, ticket-buying passengers, British Columbia, Oregon, the federal government and other public and private partners will be required to contribute for the incremental improvements to continue. In return, train travel between the Pacific Northwest's most frequent destinations, Seattle and Portland, will improve dramatically for passengers. In twenty years, the current 3 hour 50 minute trip will be reduced to 2 hours 30 minutes; the current three daily round trips will increase to hourly daylight service; and fast, sleek Talgo trains will travel safely at 110 MPH or more in some rural parts of the corridor.

DELIVERING IMPROVED INTERCITY RAIL SERVICE

We've already taken the first steps to improve the Pacific Northwest Rail Corridor. More than \$390 million has been invested to improve rail service in the Pacific Northwest since 1993. This total includes \$220 million from freight railroads, \$75 million from Washington State, \$60 million by Amtrak and \$35 million from other government agencies and private companies.

Washington State put our first state-sponsored train on the tracks in 1994. This train, Amtrak's *Mount Adams*, travels daily between Seattle and Portland, Oregon. Public acceptance and ridership were higher than anticipated.

Skeptics said we would only steal from existing ridership, yet ridership on all Amtrak trains on the corridor jumped.

Then, with our partners at Renfe Talgo of America and Amtrak, we brought high-tech Spanish trains to our region so people could better understand what their future could look like. And we didn't just bring the Talgo train into the state for a short tour, we put it into service so anyone could buy a ticket to ride. Since then, hundreds of thousands of people rode a Talgo train. They told us they loved these clean, sleek trains.

Oregon then put some money on the table and extended existing Seattle-Portland service, Amtrak's *Cascadia*, south to Salem, Albany and Eugene. In May of 1995, Washington State completed work on tracks and crossings and, for the first time in over 14 years, passengers boarded Amtrak's *Mount Baker International* to travel between Seattle and Vancouver, BC. The Talgo train was used on the new route. It caught people's attention. For the first six months, more than 90 percent of all available seats were sold.

Since then, Amtrak's Pacific Northwest team, with advice from our customers, made small but important improvements to service. Fresh, local meals are served in our dining cars and European-style bistro cars. At some stations, baggage is collected curbside. Advance efforts are made to seat families, couples and groups together. Partnerships were developed to market the service. Transportation centers and local transit connections were constructed or improved.

As a result of efforts to increase frequency, improve safety and reduce travel times, train ridership on the Pacific Northwest Rail Corridor has nearly doubled since 1993. Though we haven't added train frequencies, improved train equipment or reduced travel times significantly since May of 1995, ridership grew more than eight percent in 1996. Since Washington State's program of service improvements began, we're well on our way to operating without subsidy. Our farebox recovery rate of 62 percent dramatically exceeds the projected 35 percent rate for this stage of our program.

NEXT STEPS

In part as a result of this success, the Washington State Legislature authorized and funded another series of incremental improvements to Amtrak service in the Pacific Northwest.

In July of 1996, Washington State signed a contract to purchase two custom-built Talgo trains for use in the Pacific Northwest. Amtrak followed by signing a contract to purchase an additional Talgo. These three green and white custom-built Talgo trains will replace existing trains in our corridor in 1998.

The legislature authorized development of environmental documentation and planning to open the door for the next twenty years of construction. When this plan and environmental impact statement are complete, we'll be able to request construction permits to continue rail infrastructure improvements.

We obtained federal funds to work with our local freight railroads to test a new high-tech Positive Train Separation safety system during the next two years.

We're working with the FRA and BNSF to fully utilize the technical capabilities of the Talgo trains and reduce travel times by 30 or more minutes using existing tracks. Leased Talgo trains are scheduled for FRA/BNSF cant deficiency tests this summer. As a result of these tests, we may be able to take advantage of reduced travel times and add an additional Seattle-Portland daily round trip without additional infrastructure investment.

We're working with regional transit and local communities to rehabilitate Seattle's King Street Station. This historic building adjacent to downtown Seattle currently hosts more than 400,000 travelers per year. With improved Amtrak intercity service and new commuter rail service, this station will host more than 6 million travelers per year in less than twenty years.

Washington State and our partners on the Pacific Northwest Rail Corridor have learned many valuable lessons. Though the incremental approach and the partnerships it requires are challenging, we delivered dramatic improvements for our customers. They returned the favor by leaving their cars at home and taking the train.

CONTACTS

For additional information, visit the WSDOT Rail Office Internet website at wsdot.wa.gov/pubtran/rail; e-mail to rail@wsdot.wa.gov; call (360) 705-7901; fax (360) 705-6821 or write WSDOT Rail Office, PO Box 47387, Olympia, WA 98504-7387.

A REGIONAL PERSPECTIVE ON PASSENGER RAIL TODAY

Anne Stubbs

Executive Director, Coalition of Northeastern Governors

ABSTRACT

The Northeast Governors view passenger rail as part of a national system which is intermodal, has joint federal-state roles and responsibilities, and receives some form of public financial support in recognition of the public goods and services provided. The current passenger rail system, which faces serious economic challenges, must be reviewed and updated to ensure that safety and efficiency are optimized. Safety, efficiency and reliability are important to rail's ability to provide services which will attract ridership in an increasingly competitive and economically challenged market. The system's investing partners must have a voice in decisions on the direction and refinement of the national rail system.

The Northeast's long experience in providing passenger rail on a multi-state basis offers some important insights about intercity passenger rail. While many think of the Northeast rail system as unique or parochial, what has and will happen to the Northeast's passenger rail system mirrors challenges and opportunities in other regions. What happens in the Northeast is also important to the overall health of the passenger rail in the country.

The Northeast states perspectives can be summed in four key points:

- First, an integrated, multi-modal national transportation system is critical—now more than ever.

- Second, that system requires a continuing partnership of the federal government, states and the private sector. No individual transportation mode can be expected to be financially self-sufficient, since all are expected to provide public goods and services.

- Third, rail is a critical element in the Northeast's and the nation's multi-modal transportation system.

- Finally, in the Northeast, states are investors of longstanding in the region's rail transportation system—a pattern which is occurring is across the country. Such investors expect to have voice in decisions on the direction and refinement of the national passenger rail system.

An integrated, multi-modal national transportation system supported by the federal government, states, and private sector is critical now more than ever.

An integrated, safe and adequately financed national transportation system is a critical underpinning for the nation's economic, social and environmental well-being. The nation's highway and rail infrastructure provide essential mobility for people and goods in urban, suburban and rural communities. It's not just transportation—it is also economic development and the quality of life.

- In the Northeast, as in the Southeast, Midwest, Intermountain West, and West Coast, the infrastructure and transportation system are critical links in the national and international economic system. While the Northeast's transportation network may be more extensive, diverse and aging than those in other parts of the country, we share a common interest in a safe, integrated and multi-modal system. The various regional networks, which reflect the particular geography, history, economy and political culture of its states, are melded together to create a vibrant national transportation system which can meet our diverse needs.

- An extensive system of highways, bridges, transit—and their connections to air and water-based ports—facilitate the seamless flow of people and commerce among the states. They also tie the regional markets to the nation economically, thus contributing to the nation's ability to compete in a global economy. Materials and finished goods generated in one region are distributed on this system to markets throughout the nation. Border crossings and port facilities are gateways to the global marketplace.

- While the system does have distinct regional profiles, certain elements must be national if the goals of safety and efficiency are to be achieved. In rail, consistent nationally applied standards for signals and communications are the bedrock of safe operating systems. Ticketing is more efficient and accessible if a potential traveler can readily obtain information on routes, fares and connections for travel anywhere in the nation. Surely there must be lessons for passenger rail in the increasing movement of freight rail and aviation toward partnerships and consolidated systems which can provide coordinated service across the nation and the beyond its borders.

- The federal government continues to have any important stake in the safety and efficiency of this integrated, multi-modal transportation system.

No transportation mode can expect to be financially self-sufficient. Like our interstate highways, air and seaports or transit systems, investments in rail are based on the need to enhance safety and efficiency. A continuing public role is a critical element in achieving the valued public goods which are possible from an integrated transportation system—goods

such as clean air, fuel conservation, fullest use of the existing capacity, and improved mobility .

Rail is a critical element in the Northeast's and the nation's multi-modal transportation system.

Faced with pressures to reduce congestion, improve mobility, use scarce dollars efficiently, reduce operating costs and improve the environment, decision-makers in both the public and private sector share a common goal of making the nation's transportation system function more efficiently and effectively.

While all modes make a unique contribution to the complex fabric of regional and national mobility needs, the rail network is a critical element in the Northeast's transportation system. Passenger rail is an increasingly attractive option in other parts of the country.

- The eastern passenger rail network is extensive and diverse, serving multiple transportation needs and population groups. It is composed of a network of corridors which link together major urban areas, move freight and millions of commuters, provide access to smaller communities and rural areas, and connect the Northeast's cities and towns with those to the west and south. The "natural" eastern intercity rail system stretches from Portland, Maine in the north to Raleigh/Charlotte in the south, and reaches across an international boundary to Canada. It includes:

- The Keystone Corridor which links Philadelphia to Harrisburg;

- The Empire Corridor from New York City to Buffalo and the Lake Shore Limited running from Boston to Albany, New York provide local access to large and small communities as well as an important route to the Great Lakes and points west;

- Planned service between Portland, Maine and Boston which will open up new north-south service as population and economic growth expands in new directions;

- Corridors to Atlantic City and Hartford/Springfield which provide for both employment and recreational travel; and finally,

- The rail portion of this densely populated, heavily traveled Corridor from Boston to Washington which is a major factor in the region's ability to avoid total gridlock on highways and airways.

The Northeast states are pleased by the tremendous growth in support for intercity passenger rail at the more southern end of the this corridor.

- Efficient use of these corridors dramatically contributes to the overall effectiveness of this multi-modal

transportation network. Investments which improve the quality of intercity passenger rail service contribute to better performance by other modes. Reduced, reliable travel time between Boston and New York City can draw travelers from cars and airplanes, helping to reduce highway congestion and allowing congested air slots to be used most efficiently. An effective rail network is a component in the region's ability to improve its air quality by reducing indigenous emissions.

- The notion that a rail corridor requires population density to be effective is being debunked. Rail does work in rural areas, offering new opportunities but posing new marketing and operational challenges beyond providing tourist travel.

- The Vermonter, with support from the state, provides destination service to tourism opportunities in one of the nation's most rural states; while interest is growing in providing east-west passenger rail in the under served northern new England areas of Maine, New Hampshire and Vermont. Intercity passenger rail's congressional partners are seeking opportunities to support this effort.

Prudent investments in intercity passenger rail also contribute to the economic well-being and competitiveness for the northeast and the nation.

The Northeast serves the national system as a test bed for passenger rail technologies.

- Testing of advanced grade crossing technologies in Connecticut will contribute to rail safety and open up opportunities for passenger rail throughout the country.

- The Northeast is pleased that its commitment to improving intercity passenger rail led to testing of newer equipment technologies in the U.S. One result is that the Talgo tilt train, tested in the region, is now in service in the Pacific Northwest system. New York's investments and its leadership in demonstrating a 125 mph turbo train on the Empire Corridor also offers benefits for non-electrified service.

- Massachusetts' agreement to develop a mail handling facility on the inland route across the Commonwealth will maintain this intercity route even as it helps Amtrak develop an important revenue generating market.

- Work on the high speed corridor, including Bombardier's development of the high speed train sets in Barre, Vermont and Plattsburgh, New York, has important economic ripple effects as it draws upon technologies and economic partners across the nation.

In the Northeast, states are investors of longstanding in

the region's rail system—a pattern which is emerging across the country. Such investors expect to have a voice in decisions on the direction and refinement of the national rail system.

■ Rail has faced a climate of uncertainty since a national system was knit together in 1970. Absence of stable and predictable funding, under-investment and deferred maintenance, competition from discount airlines—all these contributed to unstable economic climate. Route systems were often designed in ways which did not encourage competitive efficient service which would attract desired ridership.

■ In the Northeast and across the country, states and other users are making important contributions by financing infrastructure renewal, rebuilding cars, acquiring new trainsets, developing new motive power systems, adding new services, investing to maintain the services, restoring stations and integrating freight service.

■ Careful capital investments and design of operations, routes and services can lead to growth and help improve return on investments. The system must increasingly work with market forces—such as pricing, marketing levels of service, reliability and dependability to attract ridership. However, like every other mode in the nation, intercity ridership will continue to require some level of operating assistance as well as sustained capital investment

in order to achieve the social and economic development benefits desired by citizens.

■ The Northeast is unique in the substantial capital investment which both the states and the federal government have made in the rail infrastructure. With the states and federal government having ownership and control of this asset, responsibility for its maintenance and operation is a public responsibility. For example, from 1988 through 1993 Amtrak and other users in the Northeast Corridor spend an average of \$479 million annually on the Corridor's operations, maintenance and capital improvements, with 58 percent of those funding coming from the states and other users. Therefore, it is vital that this transportation asset—built with public and private sector investment and which serves as the linchpin of the national passenger rail system—be maintained and strengthened.

The Northeast Governors recognize that the debate before the nation is what type of national passenger rail service will move us into the next century. Over the past several years, passenger rail has been undergoing important changes and it will continue to do so—not only in equipment, services, routes, but also in institutional and operating structure. It is critical that the views and diverse needs of the corridors which are the underpinning of the national system be fully considered.

PASSENGER RAIL TODAY: A EUROPEAN PERSPECTIVE

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INTRODUCTION

The aim of this paper is to draw on those aspects of European experience of intercity passenger services that may be of relevance in the U.S. context. We first consider the policy background in Europe. We then discuss factors affecting the demand for intercity travel, with particular reference to high speed trains. Finally we examine privatisation, concentrating on the experience in Britain which is the one country in Europe actually to have privatised its intercity trains, before reaching our conclusions.

POLICY BACKGROUND

Rail passenger services in Europe command a market share which averages around 6% of all passenger kilometres travelled, and is declining. Nevertheless, rail passenger traffic continues to grow in absolute amount in many European countries, and is seen as important in a number of contexts:

- Urban and suburban services are very important in big cities—over 70% of the one million people who commute into central London daily use the train, for instance.
- On intercity corridors where rail offers door to door journey times competitive with air, it carries a large market share, particularly for business traffic.
- In both the above markets there is strong political pressure for an increase in the rail market share to reduce the problems of congestion and environmental pollution that beset both the road and air modes in Europe.
- Even regional and rural services, where the market share is small, are politically very sensitive, and any proposals to withdraw services are hotly contested.

The result is a general acceptance that governments will wish to intervene to ensure at least minimum provision of services and will provide subsidies as a way of achieving this. Typically European railways get around half their revenue from passengers and the other half from the taxpayer. (Nash and Preston, 1994). There is also a commitment to investment in a Europe wide high speed rail network, much of which is marginal in social cost-benefit analysis terms and only a small

part of which can be financed on a purely commercial basis (CER, 1989).

The European Commission has long been concerned by the level of subsidy going to the rail sector, and by its loss of market share. The most recent White Paper on Railways (CEC, 1996) proposes the following as a way forward:

1. Separation of infrastructure and operations at least into separate divisions of the state owned railway if not into totally separate organisations.
2. Railways to be independent commercial organisations with all social obligations paid for by governments on a contractual basis.
3. Introduction of market forces. In the passenger sector it promises further study of the best way to do this, but suggests some form of franchising of local and regional services, and open access for new operators to provide competitive services using existing infrastructure on long distance routes.

However there are few countries that have actually moved towards open access for passenger services as yet and no country in which open access for passenger services has led to significant new entry (Lovers Rail, in the Netherlands, is the only open access passenger operator of which I am aware). On the other hand, a number of countries, including Sweden, Germany and Britain, have introduced franchising of local passenger services. Only Britain has extended this to intercity services, now having all intercity services operated by privately owned companies, on a franchise basis for national services and by means of outright privatisation in the case of Eurostar services through the Channel Tunnel to France and Belgium.

DEMAND FOR HIGH SPEED RAIL

One of the principal ways in which governments are seeking to expand the rail share of the market is by introduction of new high speed services. The potential market for high speed rail may be divided broadly into business and leisure travellers. Business travellers are usually travelling at their company's expense, and are willing to pay highly for speed, comfort and convenience. Door to door travel time is the key variable in determining their choice of mode. Such travellers almost always have cars available, and for shorter journeys, the door to door convenience of the car is hard to beat. If cars on motorways can be taken to average say 100km per hour, then rail must be sufficiently faster to offset

the extra access and waiting time involved. If this typically amounts to something of the order of 1 hour, then on a 200km journey, rail would need to be faster than 200km per hour end to end to beat car; on a 300km journey, 150km per hour would suffice. Obviously, the higher the rail speed, the greater the catchment area for which the rail service can compete with car (see Fig. 1).

This suggests that rail will be quite competitive with car for long distance journeys even without very high speeds. However, over longer distances it is air that is the main competitor. Given typical access and egress times from airports, it is rare to achieve a city centre to city centre time by air much below 3 hours, however short the journey. Thus the three hour journey time is often seen as an important watershed for rail services. If rail can achieve a journey time below this (amounting to an in-vehicle time of less than 2 hours more than air) it will gain a dominant market share (Table 2). However, it is important to recognise that many business trips will have one or other end located out of the city centre, so that some access time for the rail service must be added on as well. The lower the rail journey time falls below 3 hours, again, the greater the potential catchment area for the rail service. On the other hand, where there is no direct air service, or frequencies are poor, rail may compete in the business market with substantially longer journey times.

The leisure market is generally much more price sensitive, with lower values of time. Nevertheless, improved rail speeds may lead to some substitution from the main leisure competitor—the car— as well as some diversion from coach amongst those with no car available. It is also in the leisure market that one would expect that the potential for generating totally new trips, for instance by making a day or weekend social or recreational trip feasible where it was not before, would be highest.

The first real opportunity to measure the change in patronage resulting from a major acceleration of services in practice in post-war Britain was provided by a before-and-after study of the West Coast Main Line electrification in 1966 (Evans, 1969). This was based on one-day surveys of traffic conducted on all modes; not an entirely satisfactory approach given the large day-to-day variation in patronage, although it had the merit of allowing estimates to be made of whether the additional patronage had changed mode or was wholly new business. The estimated change in traffic, and the mean change in journey time, is illustrated for some of the major flows in Table 3. Generally traffic rose by some 25-50%. It is seen that the percentage increase in traffic generally exceeded the percentage time saving. A regression of the percentage change in traffic on the percentage change in journey time produced an elasticity of -1.3; that is to say that on average a 1% reduction in journey time had produced a 1.3% rise in traffic. Examination of the other modes suggested that there had been a substantial diversion of

business traffic from air, but little diversion of business or leisure traffic from road. Presumably, then, most of the additional rail leisure traffic consisted of journeys which would not otherwise have been made by any mode.

In the 1970's, services on non electrified routes were greatly improved by introduction of 200 km. p.h. diesel trains. Initial monitoring work within BR concentrated on use of the "control flow" technique. Under this method, no attempt was made to explain actual changes in patronage over time. Rather, each route on which services had been improved was compared with one or more unimproved routes which displayed a similar path in traffic over time up to the time of improvement of the first route (Shilton, 1982). Since then, application has been made of time series regression analysis in two studies at Leeds University. The first used annual data on flows between all major conurbations over a 10 year period—a total of some 45 flows (Fowkes, Nash and Whiteing, 1985). In a pooled time series/cross section model, year on year percentage changes in traffic were regressed on a variety of explanatory variables, including fares, average earnings and car ownership. The effects of major service changes were estimated by use of dummy variables. This procedure combines some of the features of control flow analysis with regression analysis. Important variables are introduced explicitly, but any systematic unexplained growth in traffic will also be disallowed when estimating the effect of service variations. The mean effect of the High Speed Train on traffic was found to be of the order of 15% growth in traffic over the course of 2 years; that of the extension of the West Coast Main Line electrification to Glasgow was slightly higher. The results are summarised in Table 4.

In the second study, time series regression was applied to individual origin-destination pairs, using 4-weekly data (Owen and Phillips, 1987). The wide range of results obtained for the effects of the High Speed Train is illustrated in Table 5. The biggest effects were found at Bath and Swindon, which as well as enjoying the greatest improvement in service, are the closest stations in the sample to London. The increase in traffic may therefore include some commuting from areas which were previously thought to be outside the London commuter belt. Increases on the East Coast route to York and Leeds are rather lower, whilst to Plymouth (a route dominated by leisure traffic, and over which the full speed potential could only be used for a short distance) no significant effect could be found. It is interesting to note the degree to which increases were greater in first class traffic than in second; this of course implies that the total increase in revenue will be considerably greater than the increases in traffic. The overall impression created by the studies of the High Speed Train was of a journey time elasticity of the order of -0.8. That is, a 1% rise in speed was accompanied by a 0.8% rise in traffic.

The evidence from the French Paris-Lyons TGV is

helpful here, as well as relating to a truly high speed service. The overall growth in rail traffic in the corridor amounted to some 75%, at a time when intercity rail travel elsewhere in France was stagnating. (Farber, 1990). This suggests a journey time elasticity considerably higher than for the British high speed train. At the same time surveys suggested that of this traffic some 33% had diverted from air, 18% from road and 49% was generated. (Bonnafous, 1987). This suggests that the high speed train is more successful in competing with air than with the car; it is also consistent with the hypothesis that there is a high degree of generation of new traffic, which we would expect to be mainly leisure. Whilst the key origin destination pair of Paris and Lyon is well within the 3 hour rail journey time threshold, substantial traffic increase has been experienced on much longer journeys such as that to Marseilles (5 hours) and Nice (7 hours).

The overall conclusion then is that in European conditions, high speed trains can substantially increase rail market share, with a big impact on air traffic but a more modest impact on roads. It should be noted however that rail may be more successful in taking traffic from other modes if either external circumstances or deliberate policies worked to encourage this (higher costs of motoring, increased congestion, reduced airport capacity for short distance flights etc).

PRIVATISATION—THE BRITISH EXPERIENCE

Following nationalisation in 1948, all main line rail services in Britain were provided by a single government owned enterprise, British Rail. This is the norm in Europe. However, there has been growing interest in privatisation, particularly in Great Britain. After a remarkable performance in the 1980's, when real subsidies were halved and services expanded at the same time, subsidies began rising again in the early 1990's (Table 6). (Reasons for this were the downturn in the economy and heavy spending on safety following the Clapham disaster (Nash and Preston, 1992)). The 1993 Railways Act provided for the privatisation of British Rail in the form of franchising of passenger services and outright sale of all other parts of the business. The privatisation was unusually complex, with the existing single organisation being divided into more than 80 separate companies, the intention being to create competition not just in the form of competing train operating companies, but also for the supply of services such as rolling stock and track maintenance, wherever possible.

As from April 1 1994, the rail industry was substantially reorganised ready for privatisation. In particular, Railtrack was set up as a separate publicly owned company to own and manage the infrastructure and sell access to it to train operating companies. Initial track access charges for passenger

operators were determined by the Department of Transport on the basis of recovering all costs including replacement of assets and a rate of return of 5.6% on the modern equivalent value of the asset base, to be gradually raised to 8% (Nash, 1996). Charges took the form of a high fixed charge, plus a low variable charge per train kilometre, varying with the type of stock, the latter simply designed to recover wear and tear costs (and the cost of electricity where electric traction is used). Freight charges were to be negotiated on a flow by flow basis according to what the traffic could bear, as would charges for new open access operators and for changes in the access arrangements for existing operators. A new body, the Office of the Rail Regulator, was set up with various responsibilities including regulating track access charges. In his first review, the Rail Regulator determined that the track access charges for passenger services were higher than was necessary for Railtrack to meet its commitments and should be reduced by 8% immediately, and by a further 2% per annum up to the year 2000. (ORR, 1995). In May 1996, Railtrack was privatised by the sale of shares, raising a total of nearly £2b.

At the time Railtrack was set up, many of the Train Operating Companies reported considerable concern about the loss of control over key assets which determine their quality of service. However, as part of the subsequently negotiated track access agreements, a performance regime was included under which Railtrack has to compensate Train Operating Companies for delays or cancellations which are its responsibility and vice versa. Thus Railtrack has a very direct commercial interest in ensuring a high standard of performance. It is reported that punctuality and reliability have generally improved under the new regime which seems to be working well. However, operators continue to complain about slowness in negotiating changes to access arrangements, and—partly to speed up the consideration of new flows of traffic—the new freight operator is understood to be seeking to put its charges on the basis of a two part tariff similar to that faced by passenger operators, rather than the existing flow by flow basis.

More concern has been expressed about the level of investment. The Regulator determined charges at a level which should permit the renewal of assets so as to at least ensure the continuation of rail services at current levels and qualities. However, he has expressed concern that investment is not taking place at the necessary rate. The pressure on Railtrack to renew its assets comes from the fact that otherwise in the longer term its performance will deteriorate, triggering penalty payments. Doubts have been expressed about whether this is an adequate incentive, and the Regulator has threatened further action if he is not satisfied with Railtrack's performance in this respect.

At the same time as Railtrack was set up, the passenger rolling stock was placed into three new companies (the

ROSCOs), and leasing agreements were set up between these and the various Train Operating Companies, which were at the time still within British Rail. These were based on charges which again included depreciation at replacement cost and interest, but with an offsetting reduction in the case of older stock on account of its higher operating and maintenance costs. These companies were privatised by outright sale, in two cases to Management Buyouts and in one case to an international financial consortium, raising a total of some £1.8b. Both management buyouts have since been taken over at substantially increased prices, in one case by Stagecoach, which is also a train operator, raising issues for competition policy as the company concerned leases rolling stock to Stagecoach's rival train operators. The takeover was permitted to proceed on condition that the ROSCO continued to be managed as a separate company and did not favour Stagecoach over other operators in its leasing terms.

Rail passenger services were reorganised into 25 Train Operating Companies to be franchised out to the private sector. Responsibility for the franchising process rests with another new body—the Office of Passenger Rail Franchising (OPRAF), which sets minimum service standards (the Passenger Service Requirement) in terms of frequency, speed, and in some cases other criteria such as reliability and crowding, as well as controlling certain fares. OPRAF then invites bids in terms of the subsidy per annum that operators will require to run the services, usually on the basis of a 7 year franchise, but with the option of a longer franchise incorporating specific investments.

Generally the Passenger Service Requirement stipulated services close to current levels for unprofitable services, but gave more freedom to operators where services were closer to commercial viability. In the case of London commuter services the emphasis was on the level of capacity provided during the peak. OPRAF has a duty to develop systematic criteria for taking decisions on support, and late in 1996 it published a consultation document suggesting that these should be based on a form of cost-benefit analysis, although ignoring user benefits when it was felt that these could be captured by the operator as revenue, and looking more broadly at environmental and economic implications of major projects (OPRAF, 1996). Clearly there was not time to develop these criteria in the first round of franchising, and therefore franchises for up to 15 years have been entered into more on the basis of preserving something close to the status quo than on the optimal use of support. Perhaps this was politically inevitable anyway, regardless of time constraints.

The franchising process started with Great Western and South West Trains, which started operation in February 1996 and was completed early in 1997. It is thought that the franchise was almost always awarded to the lowest credible bid; the successful franchisees and their bids are shown in Table 7. Whilst the first two bids promised relatively low

rates of reduction of subsidy, bids have become progressively more optimistic, culminating in the biggest and most complex franchise, Intercity West Coast, which was won by Virgin, promising to turn a £77m subsidy in the first year into a £220m premium payment to OPRAF in the last year of a 15 year franchise. Whilst the more ambitious bids clearly rely heavily on generating substantial increases in passenger revenue (in this case as a result of introducing faster services operated by a new fleet of tilting trains), it appears that also substantial cost reductions are anticipated and a start has already been made. For instance, several operators report a reduction in the number of drivers of the order of 30%, resulting from measures such as greater flexibility in shift length and an ending of the requirement that trains travelling at more than 110m.p.h. have two drivers in the cab.

Although a relatively small number of organisations were involved in bidding, the bidding appears to have been very competitive, with several serious bids for each franchise. The nature of the winning organisations is summarised in Table 8. It is seen that the bus industry dominates the scene, with a small number of successful management buyouts, a French conglomerate, Virgin, Sea Containers and a consultancy led company the other players. The dominance of the bus industry has raised concerns about lack of competition where the franchisee is also the major bus operator in the district. One case, the takeover of the Midland Main Line by National Express, which also operates almost all the express coach services from the area in question, has been referred to the Monopolies and Mergers Commission, but National Express was permitted to retain both sets of services on giving undertakings that trends in future price and frequency of express coach services on the routes in question will be no less favourable than on its network as a whole (MMC, 1996).

Assuming a linear rate of decline of subsidy, over the first 7 years the annual demands on the exchequer should be reduced by some £1,000m (Table 9). However, it is worth remembering that the new basis of charging for the use of infrastructure and rolling stock described above led to the subsidy bill rising from £1.1b in 1993/4 to £2b in 1994/5 (Table 10). It will thus be several years before subsidies return to the level they were at before the process started in 1993/4. In addition, there have been major transition costs, and the operating costs of OPRAF and ORR must be taken into account. On the other hand, the taxpayer has benefitted from the proceeds of the sale of Railtrack, the ROSCO's and the other constituent parts of BR (maybe some £4.3b, but the costs of the privatisation process of at least £0.25b must be deducted from that—see Modern Railways Informed Sources, January 1997) and the payments should provide for a higher level of investment than has been the case in the past. It thus appears that, unless a high rate of subsidy reduction could have been achieved by British Rail without privatisation the

net outcome should not be the sort of big increase in costs that was initially feared, and may even be beneficial for the taxpayer, although not nearly as much so as implied by a simple examination of the trends in support in the franchise agreements. This also presupposes that these reductions in support are actually achieved. Some commentators include writing off of debt as part of the cost of privatisation, but we are only interested in the net effect on cash flows, and it is unlikely that interest on debt would have exceeded future borrowings.

Whilst there was a virtual halt to new projects, particularly rolling stock replacement, whilst the privatisation process was underway, many of the franchise agreements do provide for substantial investment. These include substantial amounts of new rolling stock on the London Tilbury and Southend Line, South East Trains and Cross Country, and tilting trains for the West Coast Main Line, in conjunction with substantial renewal and upgrading by Railtrack. Elsewhere, innovative service patterns and higher frequencies have been offered, including the provision of a semifast service on the Midland Main line which will virtually double the number of train miles run. Again it should be remembered that British Rail itself had a record of introducing innovatory new and improved services particularly in the late 1980s so it should not be assumed that none of these innovations would have happened without privatisation. Moreover there are some developments which disadvantage passengers, such as more restrictions on the availability of fares by alternative routes, fewer cases of holding of connections (of course this actually benefits some passengers) and problems with the provision of passenger information. Overall, however, it seems unlikely that passengers will be seriously disadvantaged by the changes if franchisees fulfil the conditions of their franchise agreements.

In addition to the three main business sectors described above, the privatisation has taken place of many other companies formed from parts of British Rail. Foremost amongst these are the infrastructure maintenance and renewal companies and the rolling stock heavy maintenance companies. These were sold to a mixture of existing engineering firms and management buyouts. Amongst the other companies privatised are included BR Business Systems, (responsible for computer and ticket issuing systems), BR Research, Rail Operational Research, engineering design offices, marketing organisations and many others.

A different approach was taken with the so-called European Passenger Services (EPS) division of British Rail, which was the British partner in the operation of the Eurostar services via the Channel Tunnel to France and Belgium. This was offered for sale as part of a package whereby the owner would be committed to the design, construction and operation of a new high speed link from London to the Channel Tunnel. The winner of the

competition was a consortium called London and Continental Railways, including as well as construction companies Virgin and National Express (both now domestic rail operators). In return for a commitment to build the line the consortium was provided with the existing assets of EPS (including the fleet of Eurostar trains and much property) and a substantial cash grant.

It appears from the above description that the privatisation process has been completed remarkably smoothly, in an extraordinarily short period of time. In part this has been the result of a pragmatic approach to actual implementation which has seen many departures from original intentions—for instance, OPRAF has been willing to award longer franchises in return for promises of investment and open access has been limited, at least until 2001. There are certainly areas which remain of concern. For instance, surveys undertaken by the Consumers Association has found that the quality and impartiality of information on fares and services provided by one operator about another has been poor. Whilst many of their examples are extreme cases where cheaper fares available on very limited and unattractive services have not been mentioned, some are not, and the Regulator clearly perceives there to be a problem (ORR, 1997). Another concern surrounds the inability of one of the first franchisees—South West Trains—to fulfil its Passenger Service Requirement regarding levels of service following a too rapid reduction in the number of drivers. An emergency timetable, cancelling many services, was introduced. Of course, Stagecoach will pay penalties to OPRAF for failing to fulfil the terms of its franchising agreement, but this early example of a new operator appearing to place cost cutting above its duty to provide services has renewed fears that service levels may suffer as a result of privatisation.

Looking ahead, there remain potential problems. One surrounds the intention of the Regulator progressively to move towards open access for passenger operators (with the exception of Intercity West Coast services, where in return for the high level of investment required, protection from competition will continue throughout the 15 year franchise). Other work we have undertaken suggests that, whilst head on competition will tend to be unprofitable for the entrant, cream skimming entry with a few key trains may be profitable, and reduce the profits of the incumbent even if they are successful in retaliation. Scope for this may be limited by lack of track capacity unless incumbents are forced to surrender paths, however, as obviously cream skimmers would be looking for peak hour paths into the main termini. The most likely entrants of this type would be neighbouring franchisees.

It can be seen from Table 9 that several franchisees are committed to a 7 year subsidy reduction which is more than 50% of current turnover. For some, this will rest heavily on cost reductions but others are projecting big increases in

revenue. This raises the more general issue of what will happen if the franchisees are unable to secure the ambitious targets in terms of revenue increases on the basis of which many of them have made their bids. Apart from increased competition, the most likely cause of this is a downturn in the economy. In this situation, they have the right to reopen negotiations with OPRAF on the terms of their franchise, and if the problem is genuinely due to circumstances outside their own control, it appears likely that OPRAF will agree to some combination of cuts in services and increased subsidy. Should a franchisee become insolvent, then OPRAF would also obviously have to secure a replacement operator, and again the cost of this might be increased subsidies, poorer services or both. The cost and difficulty of this might well incline OPRAF to renegotiate subsidies and service levels rather than face this situation. Many sources in the industry believe that bidders assumed this to be the case in making such favourable bids. If they are only able to secure this performance in the face of favourable economic circumstances, then this reinforces the point that the achievement of British Rail in the favourable economic climate of the second half of the 1980's, where it halved subsidies whilst expanding traffic, should also not be forgotten. It is quite possible that a major reduction in subsidy with improved services could have been achieved without privatisation.

CONCLUSION

It must be for others more knowledgeable on the American scene to determine how much of the above experience is relevant to the US. Clearly there are a number of differences between the European and U.S. scenes:

1. Whilst there is evidence that intercity rail passenger services may be both socially and financially worthwhile in European conditions, the combination of long distances and low densities makes the US a much less favourable environment for rail passenger operations. Nevertheless there are city pairs at distances where rail should be able to command a high market share, particularly in the North East corridor, and potential for niche markets elsewhere.

2. The apparent success of franchising in Great Britain may make this an attractive proposition as a way forward for US passenger services. Franchising certainly appears to be an effective way of harnessing the forces of competition in a situation in which it does not make sense to have competing operators on the same track. However:

▪ Would there be as much competition in the US as in Britain, where much of the interest has come from major bus companies? Of course the US has a potential source of

operators not possessed by Britain in a number of private sector rail freight operators, but would they be interested in passenger marketing?

▪ U.S. inter-city services outside the North East corridor are extensive low frequency operations.

▪ Would it be possible to devise a franchising plan which offered attractive sized franchises, offered potential for exploitation of economies of scale and network benefits and yet offered enough separate franchises to sustain a number of competing companies in the business? Rather little is known about the degree of economies of scale for specialised passenger operators of this type.

▪ Will franchising turn out to work as well as it appears, or will there be extensive attempts at renegotiation and a failure to achieve the promised gains?

That is the ultimate question, for which we will have to wait some years for an answer.

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A POLICY ISSUE PERSPECTIVE: LIVABLE COMMUNITIES

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America's transit facilities and surface rail stations are facing many problems today. In many instances, even the most basic amenities, such as adequate seating, lighting, and even bathroom facilities are lacking. Oftentimes, there is no facility manager or security provider on the premises to provide day-to-day maintenance, particularly on the weekends when many of these facilities close early or are not open at all. There is frequently no place to buy food, enjoy a cup of coffee, or learn about scheduled community events and activities. Through our discussions with numerous transit agencies across the country and through our national research studies for the Transportation Research Board, it has become clear that great potential and many opportunities exist to rectify this situation, primarily as part of cooperative efforts with individual passenger communities. Local organizations in some communities have already expressed interest in becoming involved in both the planning and implementation of facility improvement programs, which serve to make these facilities more of an integral part of the communities they serve.

The kinds of improvements that we are thinking about are designed to transform transit facilities into true centers of their communities as well as more effective promoters of public transportation.

To *integrate* transportation into the community vision requires a *different process* than transportation planners currently use, and one which they cannot undertake alone. It also requires a different set of skills and a broader view of how transportation fits in or responds to community needs. For example, when renovating an existing or designing a new transit facility, a program of uses and criteria need to be established in conjunction with the community for the design and location of specific functions within the public spaces of the facility *before the design* is developed. This will insure appropriate and mutually acceptable uses and create the opportunity for the community to share responsibility for ongoing maintenance and management of the Facility and the adjacent public spaces.

A NEW AGENDA

Establishing more effective relationships between Transit Facilities and the communities in which they are located is one of the components of the work that PPS undertook with

NJ Transit over a four year period. The idea is that by developing facilities that have active, publicly oriented uses and programs that involve the community, security will be improved, revenues will increase, riders will be attracted and facilities can begin to become catalysts for economic development in the surrounding areas.

1. *Partnerships with Communities to Manage Facilities.* Many opportunities exist for transit authorities to develop alternative ways of managing these facilities in which the community plays a role and generates an income stream for carrying out these management responsibilities. In order to manage and maintain transit facilities in a manner that is required to adequately serve passengers needs, a mechanism for providing on-site management on a regular basis needs to be developed. A "caretaker," who would oversee the daily cleaning and maintenance of a facility and who would be on-site to handle and resolve problems as they arose is needed; however, this is a service that a transit authority usually is not able to provide. One alternative is to create a public/private partnership between transit authorities and individual communities to share responsibility for ongoing maintenance and management of the facility and the adjacent public spaces. The public/private partnership concept addresses such issues as supplementing existing maintenance and security services, retail leasing, coordination of customer and community information etc.

One method of generating the revenue required to fund the implementation of many facility improvements and activities is by increasing and/or dedicating parking fees to this purpose. These moneys would be deposited into a fund that would be administered by a Downtown Management Association or another entity which would be responsible for facility management.

Some of the specific activities that would be undertaken by the Partnership organization would include:

- Working with the community to define issues and potential solutions and to implement some changes
 - Provide low level maintenance to the facility building and grounds surrounding it (not major capitol improvements)
 - Security
 - Landscaping
 - Establish the informational and amenity needs of the community
 - Developing incubator retail opportunities with the community including markets and Passenger Service Centers.

In addition, we feel that transit authorities should provide, at every facility, a basic set of goods and services which passengers and visitors can come to expect when they arrive at any station in the system. Such a package of services could include a newsstand, and vendors, selling coffee and baked goods. This basic set of services could then be expanded upon by a community into a *Passenger Service Center*, which might also provide drop off service for dry cleaning, film and shoe repair, and where a wider selection of goods and services available in the larger community would also be available to transit customers.

2. **Community Based Process.** A different process needs to be used for making improvements in which the community is integrally involved in all phases from the definition of the problems to developing ways of making changes to actual implementation. This process should grow out of an understanding of community needs, and requires the following:

- **A User/Community Based Approach.** In future projects, we recommend that a process be used by transit authorities in developing plans for facilities that creates an opportunity for Transit Departments (such as Operations, Real Estate, and Planning) and the community to provide valuable input into the development of the concept. In this way peoples' knowledge and experience will become part of the process that creates optimal designs, rather than something that impacts the project after design is well underway.

PPS recommends the following general outline for a user/community based process that could be used by Transit agencies in cooperation with their passenger communities in future facility improvement projects:

- Collect data regarding passenger use and perceptions of the particular site including observations of circulation patterns, parking, interviews with passengers, retailers, personnel, etc.
- Meet with relevant personnel to present the results of the observations and interviews.
- Present and discuss issues with the community concerning the existing facility, including alternative ways of dealing with issues and ideas for organization of functions for both the exterior and interior of the facility.
- Develop design criteria that support intended uses and a functional layout of

uses for the facility.

- Develop design according to the above criteria.
- Review functions and discuss various architectural styles with local community.
- Refine design and present to Transit agencies and the community.

- **Implementation of Short Term Strategies.** These are strategies that can be implemented quickly, easily, and inexpensively. They bring quick results which piques the community's interest and involvement, and demonstrates what can be achieved. Art or horticulture projects, weekend farmers markets in empty parking lots and improved signage are just a few examples of what can take place.

- **Drawing Upon Specialized Skills.** Transportation planners, architects, urban designers, and other professions then provide the skills necessary to accommodate community needs.

OVERCOMING OBSTACLES

As we have progressed in developing recommendations for providing a higher level of amenity to passengers at numerous US transit facilities, a number of broader issues have continued to emerge in every facility that we have visited in other cities and towns around the country. These issues represent major stumbling blocks to effecting change or making improvements to transit facilities.

1. *Facility Management.* Currently, many train and bus transfer stations that we have visited do not have regular on-site management. In many facilities tickets, transit related information, beverages, newspapers, etc., if available are only available for limited hours. At other times the facilities are usually closed. And although general maintenance of the facilities is provided, small scale maintenance and cleaning is not done on a regular basis giving facilities the appearance of being uncared for and unmanaged.

2. *Station Building Use.* There are many transit buildings that are empty and boarded up, giving an extremely negative image to potential riders of a given rail system. And even in those buildings that have been adapted for other purposes, their function and image as a transit facility is often nullified by the prominence of these other uses.

3. *Security.* There is a concern by passengers in some communities that the transit facilities are not safe. This perception (which is more perception than reality at most facilities) is created by several elements, such as boarded up or closed buildings, un-maintained, poorly lit parking lots, litter, graffiti, etc. which have a major impact on it on users sense of safety and security.

4. *Connection to the Community.* A connection to the communities in which they are located is essential to the successful functioning of these facilities. This can occur in several ways ranging from improved sidewalks or new crosswalks to facilitate pedestrian access to a facility, to information about the communities in the facilities, to the involvement of people in the communities on an ongoing basis in making improvements to the facilities such as planting flowers, painting murals, operating retail carts or kiosks, etc.

However, in many of the communities, these connections are lacking and the facility has little other than a negative impact on the communities in which they are located. In some communities, the traffic is moving so fast that pedestrians have difficulty crossing the street between the Facility and the far parking lots, while in other towns there is no crosswalk or stop light between the parking lots and the adjacent retail and residential areas.

5. *Amenities.* We found that the amenities installed at historic or landmarked facilities frequently do not reflect or complement the historic style of the structures themselves. Historic amenity standards need to be developed for the following: benches, information kiosks, signage, advertising panels, telephones, newsboxes, light fixtures and lamp posts, and waste receptacles. Furthermore, the location and grouping of amenities at each facility should be reconsidered and guidelines developed to govern their placement.

6. *Retail.* When a transit authority leases a transit facility to a tenant or a retail concession, they often do not require that the facility also be open for passenger use. Where

there is public use, there are no standards to govern and guide the retailers display of goods, signage, etc. Moreover, in the case of the adaptive reuse of a facility, the transit authority often does not select the architect and contractor to carry out the redesign, nor does it have the ability to closely monitor the rehabilitation work being done to the interior (or exterior) of a historic building.

7. *Process.* The way that transportation planning (both mass transit and vehicular) is currently being done in this country makes it difficult for transportation to become integrated with or to assist a community in realizing the vision it has developed for itself, nor does most transportation planning take into account the needs of a community as a matter of course.

We think that the New Agenda we've outlined here will prove as useful for operations people as it is for the community and transit customers. It will result in a much more efficient and workable design of transit facilities and adjacent areas and will help promote ownership by both Transit agencies and communities, because the community's values and interests are both expressed and realized. To a community, a transit facility is more than just a building or a place to wait before leaving town. If conceived in an appropriate manner, it can be as important as a library, a city hall, or a community's central square. When this larger purpose is realized, people become proud of and care for these facilities, and the beneficiaries are Transit agencies, transit customers, and community residents.

Thank you.

AMTRAK SUBSIDIES AND TRANSPORTATION EXTERNALITIES

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It is not entirely clear why Congress voted to establish the National Railroad Passenger Corporation in 1970. The Declaration of Purpose (Sec. 101) of the Rail Passenger Service Act finds intercity passenger service "a necessary part of a balanced transportation system" and refers to the need "to end the congestion on our highways and the overcrowding of airways and airports." Participants in the legislative process have claimed that the underlying reason was to preserve essential freight service by ridding financially troubled Class I railroads of the burden of subsidizing passenger service.

Whatever the initial rationale, while Amtrak may have helped to facilitate the financial recovery of the freight railroads, it has not had a significant effect at a national level on air and highway congestion. In 1971 railroad passenger service accounted for 0.7 per cent of domestic intercity passenger miles (Eno Foundation, *Transportation in America*, 1995, p. 47). In 1994, after 25 years of subsidies to Amtrak, the market share was 0.6 percent (*ibid*). It is only along the Northeast Corridor between Boston, MA and Washington, DC, that rail has a noticeable share (about 6 percent) of intercity passenger-miles (FRA, *High Speed Ground Transportation in America*, 1996, Overview Report p. O-35.).

Thin ridership levels explain Amtrak's minimal impact on air and highway congestion, and also account for the financial difficulties which have plagued the corporation since its founding. The aim of the 1970 Act was that Amtrak become a "for profit" corporation, but Amtrak revenues have never been sufficient to cover costs. The US General Accounting Office has warned recently that, despite large annual federal subsidies for operating and capital, Amtrak is in danger of running out of cash in 1998 (Phyllis F. Scheinberg, "Amtrak's Financial Condition and Decisions Facing the Congress," US GAO, June 10, 1997).

The Clinton Administration has proposed an answer to the Amtrak financial crisis which would make the corporation eligible for funding from the national Highway Trust Fund. Title VIII of the proposed National Economic Crossroads Efficiency Act (NEXTEA) would provide \$1.3 billion in operating subsidies and \$2.5 billion in capital subsidies to Amtrak from the Highway Trust Fund over the next six years. The bill also would allow individual states to allocate shares of their National Highway System (NHS) funds and Surface Transportation Program (STP) funds to Amtrak.

The Clinton proposal would provide Amtrak with

multi-year funding from a trust fund flush with cash from federal gasoline tax receipts. This gives Amtrak security and a longer planning horizon, but it also raises the question of non-user benefits in a pointed way. Intercity passenger rail service has the potential to reduce highway and airport congestion and highway-related air pollution and safety risk. Should highway users be required therefore to subsidize Amtrak? Should the Airport Trust Fund be used instead of (or in addition to) the Highway Trust Fund? Should the cost of subsidizing Amtrak be spread more broadly across all taxpayers? Or should Amtrak users themselves be required to cover the costs of the system?

The conclusion suggested in this note is that non-user benefits (externalities) do not provide a rationale for non-user subsidies to Amtrak. While intercity highway and air transportation do generate significant external costs in the form of congestion and pollution, the best means for government to deal with these external costs are regulation and pricing. Intercity rail service may play a significant role in intercity markets where congestion and pollution are properly controlled, but this does not justify subsidies to intercity passenger rail.

From a formal economic perspective, an externality is said to exist when the voluntary actions of one agent (firm or household) impose costs or benefits on another agent without that agent's consent. The classic example of a production externality is a steel mill located on a river upstream from a fishery. The mill produces steel for its customers and polluted water which affects fish production. Labor and intermediate goods impose internal costs faced by the mill and the fishery. Water pollution is an external cost faced by the fishery.

The problem is that there is no market for pollution, no mechanism which enables the fishery to bid against the steel mill for the use of unpolluted water. If (in this very hypothetical example) water pollution were the only pollution generated by the mill, and the fishery were the only agent affected by it, the external cost of the mill's activity would be the magnitude of lost fish production times the market price of fish.

Transportation services benefit their users but also involve significant external effects. One's use of a crowded highway imposes costs on other users and on society which do not figure into one's decision to use the highway. The external effects range from local, short-term impacts on congestion and on sound and air quality, to long-term, global effects on the atmosphere. The effects include include air pollution, water pollution, noise, accidents, land use impacts, and congestion.

The first effort by the US Department of Transportation to quantify these effects was Appendix E of the Federal Highway Administration's 1982 Highway Cost Allocation Study. Recent studies by the Transportation Research Board (1996) and the Federal Railroad Administration (1997) extend the FHWA methodology and provide detailed, corridor-by-corridor estimates of transportation externalities (TRB *Paying Our Way* (Special Report 246) and FRA *High Speed Ground Transportation for America*).

The FRA study, a Congressional-mandated analysis of two current and six proposed high-speed passenger corridors, recognizes two basic types of externalities relevant to intercity passenger rail. The first are congestion externalities resulting from crowding of highways and the national air system (NAS). The second are air pollution externalities resulting from automotive exhaust. The FRA estimates the external costs of congestion at \$2,000 per plane-hour-delay for airline operators, \$39.03 per passenger-hour-delay for airport users, and \$10.88 per passenger-hour-delay for highway users. The estimated external costs of emissions range from \$15 per ton for carbon dioxide to \$26,400 per ton for nitrous oxide in non-attainment areas like California (FRA, *op. cit.*, Draft Main Report, pp. 6-6, 6-7).

These external costs are counted as potential benefits in the FRA study, based on the potential diversion of airport and highway users onto the rail system. For example, on the Chicago Hub, a proposed high speed rail network linking Chicago with Detroit, Milwaukee and St. Louis, FRA predicts that upgraded, 110 mile-per-hour service train service would divert about 2.0 million highway and 2.5 million air trips per year. Over the projected 40-year life of the system, the Chicago Hub would save \$623 million in aircraft delays, \$1.16 billion in air passenger delays, \$692 million in auto occupant delays, and \$115 million in reduced emissions, according to the FRA (FRA, *op. cit.*, Draft Main Report, Statistical Supplement, pp. 8-9)

These public benefits projections would play an important role in justifying investments in intercity rail passenger systems. For example, the FRA estimates that the Chicago Hub system would generate \$1.8 billion in passenger revenues in its lifetime, but would cost \$2.7 billion in capital investment and in operating and maintenance expenses (*ibid*). The projected \$2.6 billion in public benefits are critical to the Chicago Hub project and to other potential corridors studied by the FRA. (The FRA has suggested that a broader measure of value be used to evaluate projects but this measure is more controversial than the external benefits measure. Treatment of the FRA's broader measure is beyond the scope of this note.)

The problem with using highway and airport costs to justify subsidies to passenger rail is that there are more direct and efficient means to correct externalities. In the

hypothetical steel mill case, for example, a government agency could regulate the amount of pollution which the mill generates, or it could charge the mill a fee for polluting the water. The quantity constraint (or the fee) would be based on the value of fish production and would force the steel company to take the value of fish into account in its steel production decisions. Unless the fish were extremely valuable, it would not make sense to halt the mill's operation entirely. Nor would it make sense to use general tax revenues to subsidize the operation on inland steel mills. The efficient solution is to require the polluters themselves—in this case steel producers and consumers—to pay the full social cost of steel.

The same is true for air and highway externalities. There is an extensive set of control measures available which would force highway users to internalize the environmental costs of operating motor vehicles. These include direct emission fees, tradable permits, strict compulsory inspection and maintenance of emission control systems, mandatory use of low polluting vehicles, and compulsory scrappage of older vehicles. Similar measures are available to force air system and highway users to internalize the costs of congestion. These include highway tolls and parking charges, and airport landing fees and gate fees.

There are political difficulties in implementing these solutions because they require the polluters to pay the full costs of automobile and air congestion—and there are many polluters—but providing subsidies to Amtrak to reduce highway and air externalities presents serious practical and theoretical difficulties.

From a practical standpoint, for a subsidy to be effective there must be a relatively high cross elasticity between the mode which has a high social cost and the subsidized mode. The FRA's projections notwithstanding, Amtrak has not demonstrated its ability to compete effectively with air or highway modes in any major corridor except the Northeast Corridor.

On a more theoretical level, subsidies to competing modes are inefficient because they fail to target the amounts that individual transferees require to shift modes. The payments come in the form of large, undifferentiated subsidies for capital or for operations.

Where all of this leaves intercity passenger rail is hard to know. The current intercity market has been distorted for many decades by government failure to intervene effectively and to require users to pay the full costs of congestion and pollution. Studies by various economists have indicated that users of some portions of the National Highway System should be paying significantly higher amounts. A rational set of highway tolls might increase demand for intercity passenger rail. On the other hand, the Federal Aviation Administration's own cost allocation work suggests that commercial airline passengers are paying too much for air traffic control services. Reduced air traffic control fees might

lower airline ticket prices and reduce rail ridership.

In the final analysis, the question of whether passenger rail would play a role in properly priced intercity markets is an empirical question, which should be investigated, but which is well beyond the scope of this brief note. The

prescription suggested for Amtrak though is to provide the highest level of service possible at the lowest possible cost in order to compete effectively in markets which are rationally priced. One would not expect access to the Highway Trust Fund to move Amtrak necessarily in this direction.

THE CONCEPT OF INTERMODALISM: CAN IT HELP US TO UNDERSTAND THE ROLE OF INTERCITY RAIL IN THE UNITED STATES?

Matthew A. Coogan
Consultant in Transportation

Thank you, Mr. Chairman, and good afternoon.

In this TRB Conference we are examining alternative ways to look at the set of challenges presently facing Amtrak. This morning Tom Downs described to us the history of the development of Amtrak as a private, profit-making corporation. For the past few hours we have been challenged with a variety of perspectives, incorporating concepts as varied as the British experience with privatization to the American experience of revitalizing town centers. I have been asked by your committee to phrase this question in terms of the concept of Intermodalism, which I will try to do over the next 15 minutes.

Let me say at the outset that the last thing our profession needs is a new set of buzzwords which offer, or imply to offer quick fixes to long-standing policy issues. The term Intermodalism, as we will use it here, refers to a management philosophy which has taken decades to develop and mature, largely driven by American leaders in the freight transportation sector, and rarely applied effectively in the public sector. The full application of its principles to the public sector will probably also take decades to apply and refine. But a review of those principles at this time is appropriate, and may provide food for thought.

HORIZONTAL INTEGRATION AND THE LOGIC OF INTERMODALISM

We have produced some basic graphics, (reproduced in this circular as FIGURES 1 and 2) to illustrate some basic principles of Intermodalism. The graphic symbols in FIGURE 1 portray the elements of a large intermodal company, such as American President Lines, or SeaLand/CSX. In FIGURE 1, these trip segments have been organized in terms of mode. We see that, within a large intermodal company, there is indeed a management unit whose job is to efficiently manage the trucks that feed the ship, to efficiently manage the ships, to efficiently manage the rail services, and to efficiently manage the distribution services at the end of the trip. Looking at FIGURE 1, we see the logic of labeling this form of organization as one of vertical integration. Within this concept, the managers of (say) the ships know how to optimize the efficiency of that fleet of ships, and make decisions on that basis. Within this logic, the

manager of a given mode would be evaluated in terms of the efficiency of that mode, of that operation. Examples of such measures of performance might be cost per mile, revenue per mile, etc.

In FIGURE 2, the very same set of trip segments is seen through a different lens. In this vision, the success or failure of the operation (i.e., the measure of its performance) is observed in terms of its impact on the end user/customer. Examples of such measures might include door to door travel time, door to door travel cost, and reliability experienced by the consumer. It is important for this discussion to note that the actual measures of performance utilized in FIGURE 2 could be different from and totally inconsistent with, the measures used in FIGURE 1. Looking at the obvious example of the overnight freight industry, a concept in which a package from Boston to New York is routed through Memphis may look very bad through the lens of modal performance, while looking very good in terms of the total systems performance experienced by the customer. (Ref. 1)

Creating graphics to illustrate this concept is easy: explaining the scale of impact this management change has had on major portions of the transportation industry is difficult to do in the time available. Clearly, without this change toward the evaluation of operations from the point of the view system-wide needs of the end user, the overnight freight industry would not exist today as we know it. The shift in management orientation, (or if you must, the shift in paradigm) has profoundly changed the way in which decisions are made and organizations are structured. It is worthwhile to examine the implications of such a shift for the manner in which we observe and evaluate our national rail system.

Earlier in the conference, Tom Downs explained that Amtrak is being evaluated in terms of a free standing entity, which for good reason or bad, was defined as a profit making corporation. In our metaphor, Amtrak is being observed and evaluated in terms of vertical integration, and not in terms of horizontal integration. But there are other models of evaluation appropriate to national rail systems, to which we now turn.

EUROPEAN APPLICATIONS OF HORIZONTAL INTEGRATION

The creation of a package of services which provide superior services to the customer, and need to be evaluated in terms of

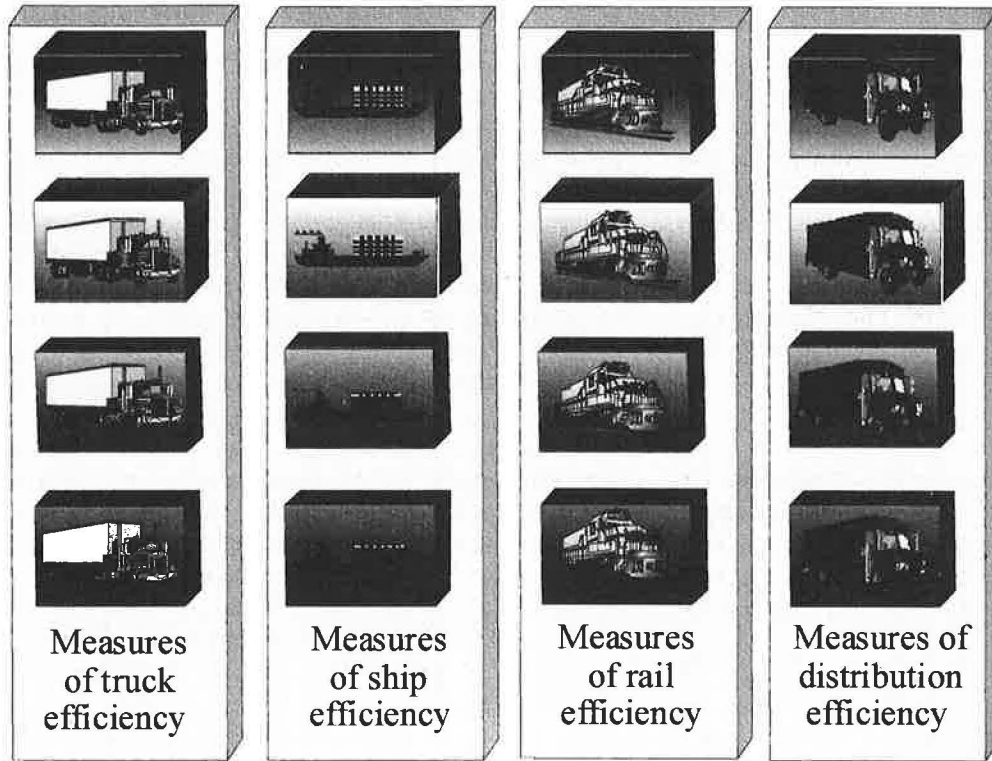


FIGURE 1

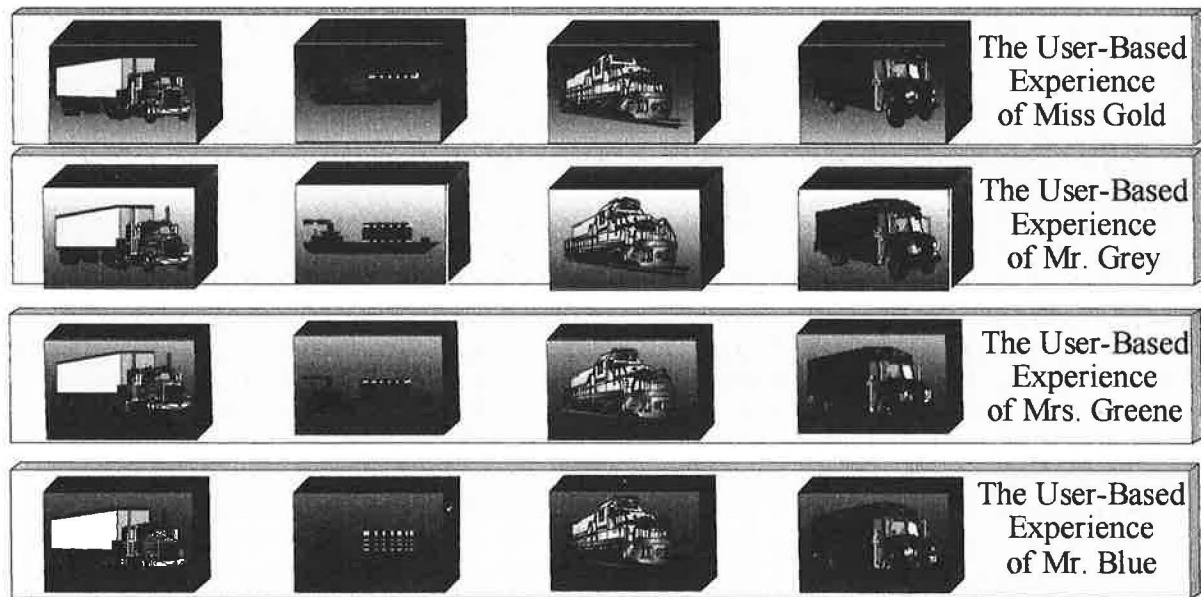


FIGURE 2

that customer-based experience, is not new to students of public policy toward transportation. We can observe examples of such investment in France, Germany and Switzerland. The new high speed rail station at the Charles DeGaulle Airport in Paris represents the investment of massive amounts of capital to build a station literally within the Terminal Two airside complex, tunneling under active runways. With the creation of an entirely new rail line, bypassing the city of Paris on a north south axis, new high speed rail services are being designed and implemented which will provide two hour travel times to major cities in the western portion of Europe. Similarly, the existing rail complex within the Frankfurt Airport is currently being doubled in capacity as part of project which will lower the travel time from that airport to Cologne from two hours to one hour. The Swiss government has been for some time emphasizing the efficiency of its airport rail links in its tourist information, with both through ticketing and baggage handling offered across modes. (Ref. 2)

Each of these investments may have looked poorly in terms of standard modal measures of performance, (such as cost per new rail rider, for example) but each may have a profound effect on larger national goals and strategies, including the impact on the national aviation industry. For a trip to Asia, or a trip to North America, there is considerable territory in which the Frankfurt Airport and Paris/DeGaulle Airport are direct competitors. Each nation is building high speed rail links that extend the logical market shed for their national long distance airport. To the north, competition between airports in Paris, Amsterdam and Brussels will be intense. The French investment in a rail system that can take citizens of Belgium to the basement of the airport's Terminal Two in just over an hour's time may have a profound effect on the marketability of French long distance air services in this market. (Ref. 3)

In each of these cases, the national investment in the rail system was undertaken to accomplish a performance objective above and beyond that experienced by the rail operator alone. In fact, these strategies represent highly specific attempts to create intermodal services for the customer. In a series of interviews with German transportation officials, this author was told that the decision to focus intermodal rail investment at Frankfurt, and not at other airports, was a function of Frankfurt's competitive position for long distance air travel. French officials reported the same rationale for connecting high speed rail to DeGaulle and not to Orly Airport. In each of these cases, the decisions for investment in rail were made in terms of larger strategic policies of the national government.

The creation of a package of services to influence the behavior of the consumer, with strategies that cut across modal boundaries, is a good example of the European application of the principle of horizontal integration.

INTERMODALISM AND THE SURVIVAL OF AMTRAK

It could be argued that a better national understanding of Intermodalism may be a key to the success of funding Amtrak, for it is not as a free standing element that Amtrak contributes to America's mobility and its economic growth. It makes its contribution as part and parcel of a national system of transportation, which is made up of a combination of public and private roles. Intermodalism, the study of the interaction between modes within a total system, impacts the policy debate in two ways. First, some of the benefits from investment in Amtrak accrue to other modes within the national intermodal network. Second, Amtrak services must be seen as a part of a larger, national intermodal network which provides mobility to Americans.

Concerning the effect of Amtrak investments on the performance of other modes, the Coalition of Northeastern Governors Task Force on High Speed Rail (CONEG) research was highly instructive. Our major conclusion had to do with the role of improved rail service as part of a total system: we were able to show tangible, physical implications of high speed rail service on other portions of the system, particularly at chronically plagued slotted urban airports. Thus, some of the benefits of high speed rail were experienced by those on board the new train, and some of the benefits were experienced by those with improved efficiency at Logan or LaGuardia airports. (Ref. 4)

The benefits which are generated by our nations rail system sometimes can be explained in narrow, modal terms, (such as cost per rider, or revenue per route mile) and sometimes cannot. The CONEG research demonstrated how an investment in rail between Boston and New York could have significant, measurable impact on the quality of air travel at LaGuardia and Logan. A precious slot freed up by a short haul Boston-New York plane could be used by a Boston to Los Angeles plane. A slot freed up by a new Detroit-Chicago rail investment, could be utilized for more service to Tokyo. In short, some of the benefits which were generated by the rail investment did not end up visibly on the ledger sheet of the rail company, but rather were experienced throughout the tightly interconnected transportation system.

The choice of user-based measures of performance calls upon us to measure the time saved by the air passenger who is not circling needlessly over the City of Boston. And similarly, the choice of user-based measures of performance calls upon us to look at the improvement in mobility of the regional bus rider gaining a higher quality transfer at the new rail terminal in Meridian, Mississippi.

INTERMODALISM AND GEOGRAPHIC COVERAGE

Amtrak, we contend, should be evaluated for its effectiveness as part of a total national system which embraces all modes. Trips from small town America very often start on regional bus companies, whose coverage is so wide that Amtrak would neither want nor be able to mimic them. In one view, it could be argued that the state of New Hampshire is not served by Amtrak; in a more systematic view, it can be observed that most of the state is served by high quality, private bus service connecting into the national system at Boston's South Station Intermodal Transportation Center, from which an escalator takes the rider to the Amtrak rail platform.

We know empirically that a network built upon the trunk of Amtrak services, and feeding the nation's airports, does exist as a major national resource, but analytically, we do not know much about it. Initially, federal legislation mandated that the states document the characteristics of these systems as part of their Intermodal Management System, a concept somewhat downplayed in more recent legislation. Taken together, the combination of bus routes which interconnect with longer distance services represents a great national resource. Clarifying the existence of these interconnecting services could lead to the development of a system in which information (and later, through-ticketing) could be provided, in a manner similar to California's intermodal bus/rail network created several decades ago.

The National Highway System (NHS) can be seen as a precursor here. The NHS was designed by FHWA under the explicit direction of Congress to create a national network that ties points of intermodal transfer together, in this case with highway investment. The will of Congress to create a national system that connected the various modes was clear, with carefully detailed standards for inclusion in the system. Where roadway connections to major points of intermodal transfer are poor, inclusion on the NHS system allows for increased flexibility in highway financing sources.

WHAT WE CAN DO AND WHAT WE CANNOT DO

Clearly, a massive expansion of Amtrak's coverage is not a feasible option at this juncture; nor are major investments to the capital plant to accomplish better intermodal connections. There are essentially two policy options available to us: the continued focus on the creation of good intermodal terminal connections, and the creation of an intermodal information system to support those connecting services. At this time, it is not only essential that we press forward with concept of a national program of interconnected services, (massively expanding the influence area of the Amtrak trunk route system) but that we also create documentation to show

Congress that the national system exists, and is being tied together. On the physical level this implies continued work in tying services together. At a virtual level this means the creation of information systems which can provide the end user with information needed to plan the total trip on the intermodal system, with seamless access to trip planning information across modes. (Ref. 5)

We have a national program to bring Intelligent Transportation Systems to the citizens of the country. Have we done enough to integrate the systems of information about rail with the information systems of other modes? The citizen of New Hampshire has good quick access to Amtrak from dozens of New Hampshire towns, thanks to the development of the South Station Intermodal Center. To make a unified trip from North Conway, New Hampshire to Penn Station, New York is easy and pleasant. To get information about that unified trip is nearly impossible. The creation of an information system specifically aimed at the traveler seeking to take advantage of the nation's intermodal system should be a priority.

THE RELEVANCE OF INTERMODALISM TO AMTRAK'S FUTURE

At this juncture in Amtrak's development, (and indeed in terms of its survival) the message needs to be sent about its role in a system providing mobility to geographic areas far wider than the cities and towns directly served by Amtrak. As a provider of mobility for longer distance trip segments, it is not a corporation seeking just to maximize profit, any more than the local elementary school is such a corporation. But, in order for those in Congress to better understand the richness inherent in this national system, we in the transportation profession have to do a better job documenting the existence of the full network, and demonstrating tangible steps of improving the nation's access to it.

Amtrak can be explained for what it is, a set of trunk services, which when combined with a much larger set of collector and distributor services provides a national system of mobility for millions of Americans. There exists a rich and full experience base of transportation professionals, mainly based in the intermodal freight industry, who have made the transition away from narrow modal orientations, to a viewpoint utilizing a set of user-based measure of system wide performance. This experience base can be applied to the issue of understanding the critical role of Amtrak in the American intermodal network. The critical need now is to support Amtrak and the DOT in the development of tools and mechanisms which can help to bring this about. As Secretary Slater assembles around him a group of key staff with an enthusiastic, demonstrated commitment to Intermodalism,

the question turns to, "How can we help to bring about this vision?"

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LABOR/MANAGEMENT ISSUES

Sonny Hall
Transport Workers Union

I appreciate the opportunity to share with you an employee perspective on the future of intercity passenger rail and specifically on the policy issues and questions that face our nation's passenger railroad—Amtrak. I appear today as president of the Transport Workers Union and as Secretary-Treasurer of the Transportation Trades Department, AFL-CIO which consists of 29 transportation unions, including 13 in the rail sector. Collectively, TTD rail affiliates represent over 20,000 workers at Amtrak and there is little doubt that we have a vested and long-term interest in a strong and vibrant passenger rail system.

This conference has already heard from a number of individuals who have described in detail the financial challenges that Amtrak faces. I do not want to revisit that issue in detail other than to reinforce the point that Amtrak is suffering from chronic under-funding and faces a grave future if Washington lawmakers do not find the political will this year to ensure its long-term survival.

We've all seen the facts. The General Accounting Office confirms what many of us already know: Amtrak is sliding more and more into debt and will need increased government funding to overcome mounting interest payments as well as money to replace rail cars and undertake essential infrastructure improvement projects. The railroad lost \$1.6 billion in 1995 and 1996 and Amtrak President Tom Downs has told Congress repeatedly that the railroad could go bankrupt as early as May 1998 when it exhausts its \$150 million line of credit.

So what can we do to stop this downward spiral? Can we find a way to support a national Amtrak network that workers, passengers and communities can count on to be there now and in the future.

A number of proposals and ideas have been floated and considered. Amtrak management has pursued a strategy which, quite frankly, I don't agree with. First and foremost, Amtrak's strategy buys into the myth that our country can sustain a national rail passenger system without federal subsidies. If I can leave you with a single message today it is this: no country in the world subjects its passenger rail system to such unrealistic expectations—neither should we.

Amtrak is taking steps to "be more like a business." It has begun to investigate alternative sources of revenue, modernize its rolling stock, purchase more efficient locomotives, and restructure services to better serve its customers. These are programs that employees can support

and we will continue to work with management to make Amtrak a more efficient carrier.

However, we cannot and will not allow Amtrak to try and "save" itself on the backs of workers. Just in the past two years Amtrak has laid off nearly 3,500 employees in an effort to cut costs and consolidate operations with little regard for what this will mean for the long-term viability of a national passenger rail system.

Amtrak wants to run an efficient, safe, and customer orientated railroad. That's great, but I do not understand how it expects to meet those objectives if it continues to blindly reduce its workforce and in the process lose a group of experienced and dedicated workers.

In terms of direct financial loss, I cannot think of any other group that has sacrificed as much for Amtrak as its employees. In the 25 years that Amtrak has been in existence it has been the workers who have given, given, and given, every time, in an attempt to keep the carrier running.

In the early 1980s management came to its employees and insisted on a 12 percent wage deferral that was necessary for Amtrak's survival. After 16 years of waiting, I suspect the term "deferral" should be changed to "permanent takeaway" as none of our members ever expect to see that money.

From 1987 through mid-1992, while management enjoyed an annual salary increase as high as 15 percent each and every year, workers saw their wages frozen. The result—Amtrak is still facing a financial crisis and its workers are currently the lowest paid in the entire rail industry.

To illustrate this point my union, the TWU, along with the Transportation Communications Union and its Carmen Division undertook a study of what our sacrifices have meant for workers. What we found is that these employees have essentially been paying a penalty, year after year, for their decision to work at Amtrak.

This "Amtrak Employment Tax" has meant, for example, that a mechanic that started working at Washington's Metro in 1980 would have received over \$100,000 more than if he or she would have worked for Amtrak.

In 1997 alone, Amtrak car mechanics will earn \$2,246 less than those in Atlanta, \$6,510 less than those on Chicago's commuter lines, and \$16,349 less than those on New York and New Jersey's PATH. It is quite frankly embarrassing that we have allowed workers at our nation's national rail system to fall so far behind workers at other transit and commuter rail carriers. This game must stop because it does very little to improve Amtrak's bottom line, but at the same time dooms Amtrak workers to a low wage path.

As I've said time and again, the TWU will look at

sensible reforms that will benefit Amtrak *and* its employees. But we will not continue to take wage-cuts and layoffs that will not only harm workers, but prevent the carrier from providing effective and efficient passenger rail service.

Congress may pursue a variety of legislative reforms presumably geared towards helping Amtrak's long-term financial state. While some of these initiatives are worth pursuing, such as finding ways to allow Amtrak to tap into new business markets, these reforms should not be used to attack Amtrak's already beleaguered workforce.

For example, some in Congress tell us that all we have to do is allow Amtrak to contract out work and all of the carrier's problems will be solved. This phoney, politically motivated effort will not work and distracts attention from finding real solutions to Amtrak's problems. Think of it this way, since Amtrak workers are already the lowest paid in the industry we have to ask the question— who are they going to contract-out the work to while maintaining safety and efficiency standards that are essential to Amtrak's long-term survival. The fact is that contracting out already occurs far too much from our perspective- and yet we're told that Amtrak's survival hinges on outsourcing jobs to even lower wage contractors. A first-class passenger rail system cannot be maintained without a stable workforce dedicated to the long-term performance of the carrier. Legislative reforms that allow wholesale contracting-out is wrong, it will not solve Amtrak's problems, and we will fight it every step of the way.

We also hear popular battle cries from some in Congress that we must wipe out worker protections embedded in the law. Once again, this so-called "solution" is nothing more than an unnecessary, partisan attack on workers that will do nothing to really help Amtrak. If we're interested in the facts, let me just say that Amtrak itself knows that labor protection costs are negligible and insignificant in the debate over its survival. We can only hope that in the future this issue is debated using facts, not politically motivated rhetoric.

As I have previously explained, Amtrak workers have given up a great deal with the promise that one more sacrifice will turn their employer into a viable railroad. So now we are told that our basic protections based in long-standing law are the last barrier between Amtrak and financial nirvana. Well, we know better and we are simply not interested in playing that game. Instead of trying to chip away at workers, we would suggest that those who are truly interested in saving Amtrak join with us in pursuing a strategy that we support, Amtrak supports and several Members of Congress support—securing a dedicated source of capital.

Our international competitors literally laugh at the latest debate over the future of Amtrak. As I stand here today and discuss with you what we can do to save our national rail system, other countries around the world pour billions into their rail infrastructure as they prepare for the next century.

Yet despite the overwhelming evidence against the idea of a subsidy-free passenger rail system, this myth continues to have political life in our policy community. This must stop or we will never stop the financial hemorrhage of Amtrak.

Regardless of the long-term results of ongoing Amtrak reform efforts, they will do nothing to meet the current crisis Amtrak faces right now. We can debate reform all day, or we can wage a national effort to make the case for Amtrak and for a long-term commitment by our government to this crucial transportation investment.

Amtrak already recovers more of its costs from the fare box than any other passenger railroad in the world and most countries are forced to pay a greater percentage of funding to keep their passenger rail system operating than we do in the United States. I just have not seen any credible evidence that would lead me to believe that we can realistically expect Amtrak to completely free itself from some form of public assistance.

In any event, we must recognize that the reforms being discussed will not make an impact for a number of years and it is therefore imperative that steps are taken today to provide Amtrak with a dedicated and reliable source of funding.

TWU and the other rail unions have endorsed a plan put forth by Representatives Bud Shuster and Jim Oberstar that would move the 4.3 motor fuel tax that currently goes to deficit reduction back into the highway trust fund and use ½ cent of that money for Amtrak. Finance Committee Chairman Roth and others in the Senate have similar proposals which rail unions also support.

Because of the recently passed budget deal we must be looking at other options as well. Senator Roth also has a proposal that will create a separate, "walled-off" Reserve Fund that can be used to support Amtrak capital needs. Before this debate concludes, I'm sure other proposals will surface as Congress wrestles with this financing challenge.

Without commenting on the details of these proposals, one thing is certain: there is critical mass forming in the House and Senate to address Amtrak's long-term funding needs. I am heartened to see support build for a dedicated funding stream for Amtrak. Let us seize this window of opportunity and unify around a workable mechanism that not only authorizes more money for Amtrak but actually makes it available to be spent—and now.

We must get past the threshold question: It is in our country's interest to have the finest national passenger rail system in the world?

If the answer to that question is yes, then we must recognize the fact that simply focusing our energies on long-term reforms will not get the job done. The crisis at Amtrak will become aggravated if Amtrak doesn't start realizing that workers simply cannot keep giving to resuscitate a chronically ill patient. This low-wage path to failure must stop if we're serious about having a first-class passenger rail system.

Instead of advancing politically expedient attacks on worker rights, we must dedicate ourselves to enacting a dedicated and reliable source of funding to meet both the short-term cash shortfall and Amtrak's long-term objectives.

If we want to wage a holy war over "labor reforms" that will provide virtually no benefits to Amtrak, then I

suppose we can fight with the best of them. However, if we're serious about stopping the slow but steady death of our national rail passenger system, let us band together to defeat those who would permit this country to abandon its decades of commitment to Amtrak and would permit the wholesale destruction of 20,000 jobs.

AMTRAK'S FINANCIAL CONDITION AND DECISIONS FACING THE CONGRESS

Phyllis F. Scheinberg
U.S. General Accounting Office

Amtrak has been in financial difficulty for most of its 26-year existence. In recent years, its financial condition has deteriorated to the point to which Amtrak believes that it may run out of cash in 1998. To reduce the continually growing losses and a widening gap between operating deficits and federal subsidies, Amtrak developed its Strategic Business Plan. This plan, which has been revised several times, was designed to increase revenues and control cost growth and, at the same time, eliminate Amtrak's need for federal operating subsidies by 2002.

Although Amtrak has made some progress in implementing its business plan and cutting its losses, its financial condition is still precarious. Amtrak's financial measures continue to deteriorate, financial targets have been missed, and substantial capital investment is needed. As Amtrak's financial condition continues to deteriorate, the Congress is faced with difficult decisions regarding the future of intercity passenger rail service.

AMTRAK'S FINANCIAL CONDITION IS PRECARIOUS

Amtrak financial condition is precarious and the carrier has lost over \$700 million in each of the last 9 years. Although actions taken by Amtrak through its business plans have helped reduce its net losses, the corporation has struggled to reach net loss targets. ("Net loss" is defined as total revenues minus total expenses. Unless otherwise noted, all financial data were obtained from Amtrak and were not independently verified.) For example, Amtrak's plans for fiscal years 1995 and 1996 included actions to reduce its net losses by \$195 million—from about \$834 million in fiscal 1994 (in current year dollars) to \$639 million in fiscal 1996. By the end of fiscal year 1996, Amtrak's loss had declined to about \$764 million; however it was substantially more than planned. In addition, as the following figure shows, the relative gap between total revenues and total expenses has not closed significantly (see FIGURE 1).

Amtrak's fiscal year 1997 operating losses may be even higher than those in fiscal 1996. As of the end of the second quarter of its fiscal year, expenses have been higher and revenues have been lower than originally projected. Amtrak estimates its year-end net loss could be about \$783 million, compared to its original estimate of a \$726 million loss.

Moreover, passenger revenues (adjusted for inflation)—which Amtrak has been relying on to help close the gap between revenues and expenses—have generally declined over the past several years (see FIGURE 2). Similarly, the gap between operating deficits and federal operating subsidies rose in fiscal year 1996 to \$82 million—the highest it had been in the last 9 years. (Operating deficit is the same as net loss, except noncash items [such as depreciation] and a one-time charge taken in fiscal year 1994 are excluded from the total expense).

Amtrak's Financial Measures Are Deteriorating

Amtrak's continuing financial crisis can be seen in other measures as well. In February 1995, we reported that Amtrak's working capital—the difference between current assets and current liabilities—declined between fiscal years 1987 and 1994. (*Intercity Passenger Rail: Financial and Operating Conditions Threaten Amtrak's Long-Term Viability*, GAO/RCED-95-71, February 6, 1995). Although Amtrak's working capital position improved in fiscal year 1995, it declined again in fiscal year 1996 to a \$195 million deficit (see FIGURE 3). This decline reflects an increase in accounts payable, short-term debt, and capital lease obligations, among other items. A continued decline in working capital jeopardizes Amtrak's ability to pay immediate expenses.

Amtrak's Debt Levels Have Increased

Amtrak's debt levels have also increased significantly (see FIGURE 4). During fiscal years 1993 through 1996, Amtrak's debt and capital lease obligations nearly doubled—from about \$527 million to about \$987 million (in 1996 dollars). These debt levels do not include an additional \$1 billion Amtrak expects to incur within the next 2 years to finance 18 high-speed train sets and related maintenance facilities for the Northeast Corridor (at about \$800 million) and the acquisition of 98 new locomotives (at about \$250 million).

It is important to note that to service this increased debt, Amtrak must use a substantial portion of its federal operating subsidies that would otherwise be used to cover future operating deficits. In fact, over the last 4 years, Amtrak's interest expenses have tripled—from \$20.6 million in fiscal year 1993 to \$60.2 million in fiscal year 1996 (see FIGURE 5). Because Amtrak pays this interest from its

federal operating assistance and principal from its federal capital grants, this increase has absorbed more of the federal operating subsidy each year.

As shown above, between fiscal years 1993 and 1996, the proportion of federal operating subsidies going to interest payments has increased from about 6 to about 21 percent. As Amtrak assumes more debt to acquire equipment, the interest payments are likely to continue to consume an increasing portion of federal operating subsidies.

Actions to Improve Amtrak's Financial Condition Have Been Difficult

Amtrak has been hard-pressed to improve its financial condition. Competitive pressures—in part, by lower fares on airlines and intercity buses—have limited Amtrak's ability to increase revenues by raising fares. On one hand, fare increases resulted in a 24-percent increase in yield (revenue per passenger mile)—from 15.4 cents per passenger mile to about 19.1 cents—during fiscal years 1994 to 1996. In comparison, between 1994 and 1995, airline yields declined slightly, intercity bus yields increased 18 percent, and the real price of unleaded regular gasoline increased a little less than 1 percent (data for 1996 were not available for this analysis). However, it appears that Amtrak's ability to increase revenues through fare increases has come at the expense of ridership, the number of passenger miles, and the passenger miles per seat-mile (load factor). Between fiscal years 1994 and 1996, all three declined. (Between fiscal years 1994 and 1996, Amtrak's annual ridership declined from 21.2 million to 19.7 million passengers, passenger miles declined from 5.9 billion to 5.1 billion, and the load factor declined from 49 to 46 percent. Ridership excludes commuter passengers.) Such trade-offs in the future could limit further increases in Amtrak's yield and ultimately revenue growth.

Amtrak has also had difficulty in taking certain actions necessary to further reduce its costs. During fiscal year 1995, Amtrak was successful in reducing and eliminating some routes and services. For example, Amtrak reduced the frequency of service on seven routes from daily to 3 or 4 times per week, and on nine other routes various segments were eliminated. Amtrak estimates that such actions saved about \$54 million. However, Amtrak was less successful in making the route and service adjustments planned for fiscal

year 1997. As a result, it estimates that its projected fiscal year 1997 loss will increase by \$13.5 million. Finally, Amtrak has been largely unsuccessful in negotiating productivity improvements with labor unions.

AMTRAK'S VIABILITY DEPENDS ON CAPITAL INVESTMENT

Amtrak's goal of eliminating federal operating subsidies by fiscal year 2002 largely depends on substantial capital investment. The goal of such investment—the modernizing of property, plant, and equipment—is to both help Amtrak to retain its ridership revenue by improving the quality of service and to increase revenues by attracting new riders.

For fiscal year 1998, the administration has proposed capital funding that falls far short of Amtrak's stated needs. The President's budget requests \$423 million for capital support from the Congress, while Amtrak says it needs about \$750 million. If adequate capital funds are not available, Amtrak will likely be forced to borrow additional funds, placing further stresses on its cash flow. Capital projects would also likely have to be deferred, resulting in reduced timeliness and quality of service.

Amtrak needs substantial capital investment both to modernize and replace physical assets and to complete projects on the Northeast Corridor. For example, Amtrak estimates that an additional \$1.4 billion will be needed to finish the high-speed rail project between New York and Boston. In addition, the Federal Railroad Administration (FRA) and Amtrak estimate that about \$2 billion will be needed over the next 3 to 5 years to recapitalize the south end of the corridor and preserve Amtrak's ability to operate in the near-term at existing service levels. FRA and Amtrak also estimate that up to \$6.7 billion may be needed over the next 20 years to recapitalize the entire corridor and make improvements targeted to respond to growth opportunities.

Amtrak has made some progress in addressing previous capital needs, but the going has been slow, and Amtrak may be facing significant future costs. For example, as of October 1996, about 53 percent of Amtrak's active fleet of 1,600 passenger cars averaged 20 years old or more and were at or approaching the end of their useful life. It is safe to assume that as this equipment continues to age, it will have more frequent failures and require more expensive repairs.

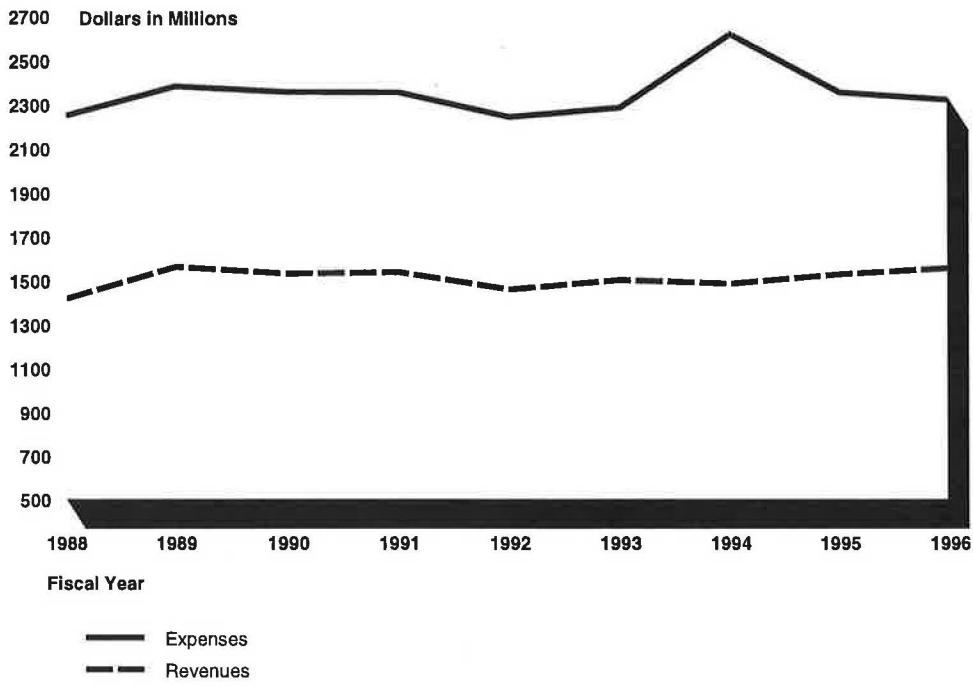


FIGURE 1

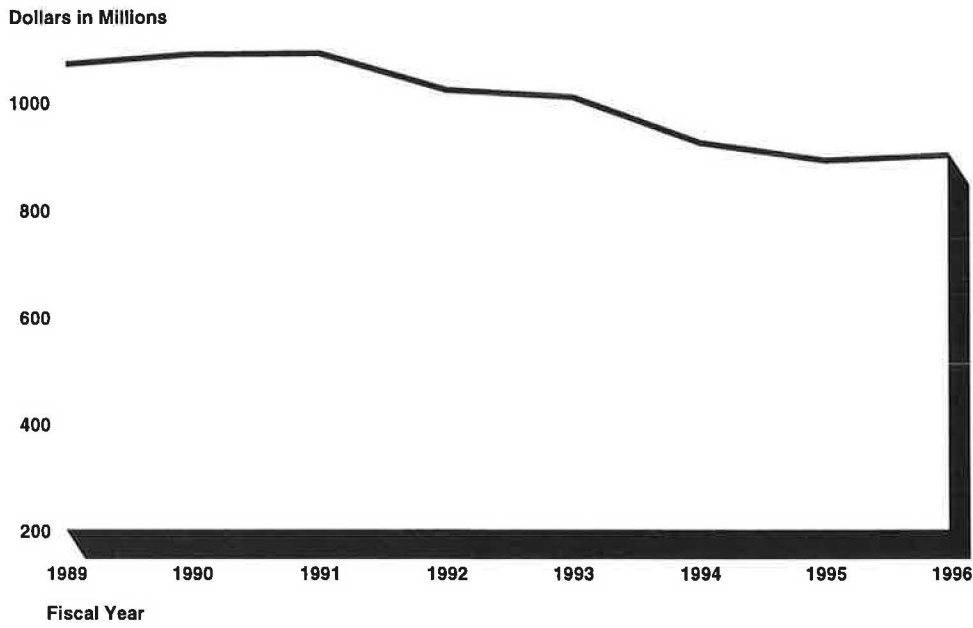


FIGURE 2

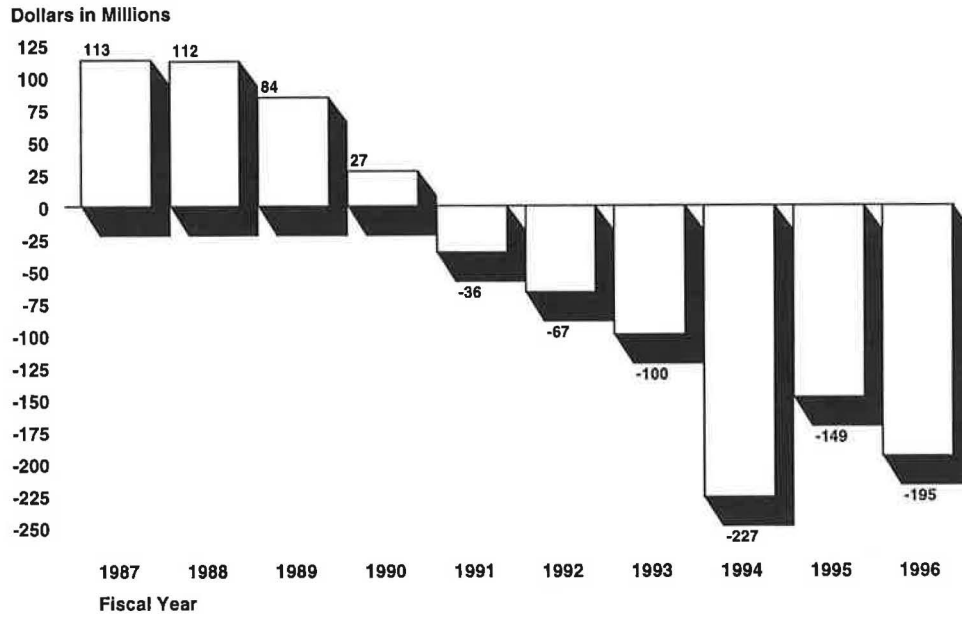


FIGURE 3

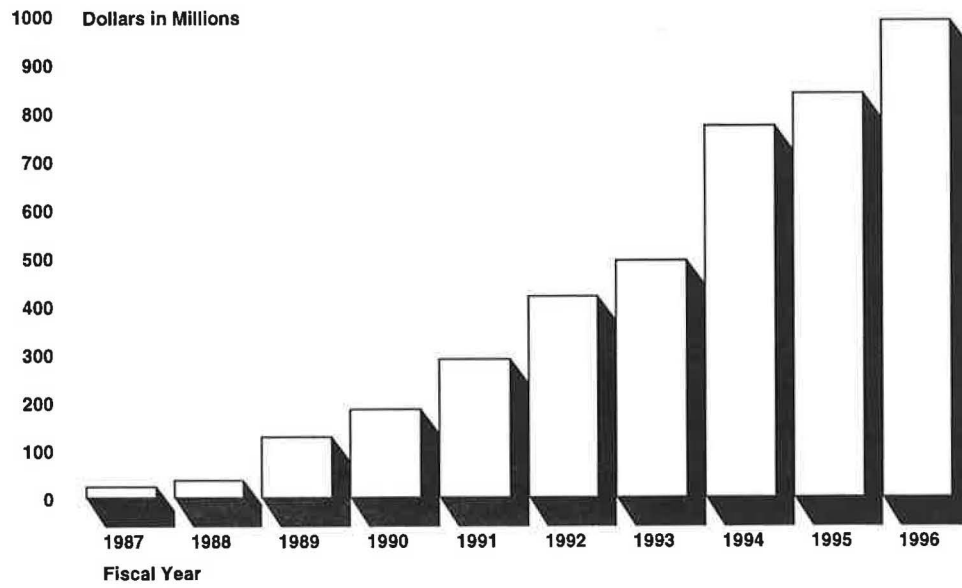


FIGURE 4

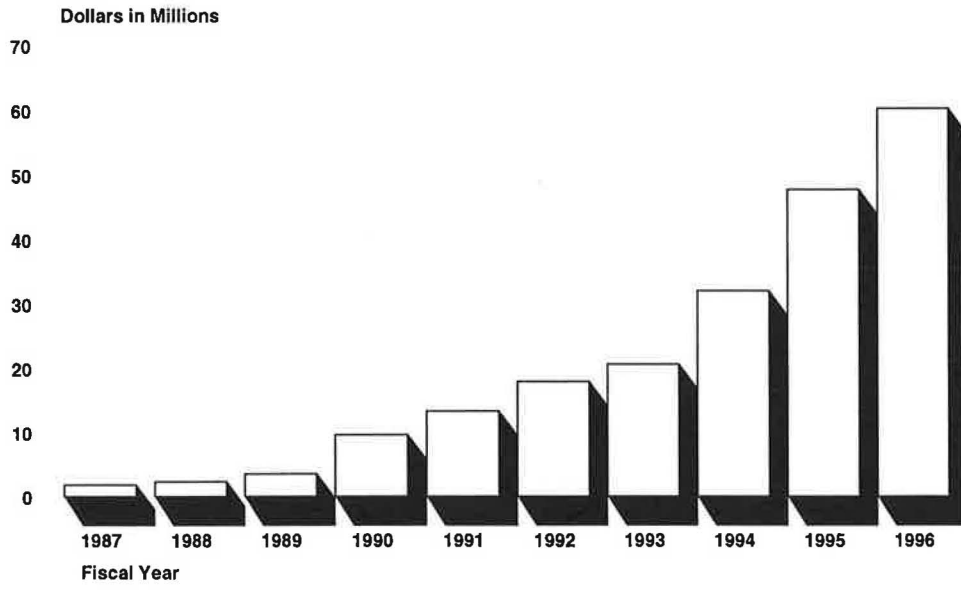


FIGURE 5

THE CONGRESS FACES DIFFICULT DECISIONS

Amtrak is at a financial crossroads. Just as the financial problems that Amtrak faces did not arise overnight, they will be not solved overnight. A first step in addressing Amtrak's financial problems would be an agreement on the role of passenger rail service in our national transportation system. Once that role is agreed upon, Amtrak's mission and its financial needs could be molded. If Amtrak's mission is to operate a viable national passenger rail system, it will need adequate financial support from all three levels of government—federal, state, and local. Alternatively, if the necessary financial support is not possible, then the current system of passenger rail service will need to be reconsidered. This could be accomplished by the Congress directing Amtrak or a temporary commission, similar to the one established to close military bases, to make recommendations and offer options redefining Amtrak's basic route network so that efficient and quality service could be provided within the funding available from all sources. (A recommendation to the Congress incorporating this idea is contained in GAO's February 6, 1995, report entitled *Intercity Passenger Rail: Financial and Operating Conditions Threaten Amtrak's Long-Term Viability*, GAO/RCED-95-71).

Under any approach, Amtrak will still need to become more efficient by successfully implementing its Strategic Business Plan, rehabilitating and replacing aging equipment and infrastructure, and obtaining relief from any statutory restraints that unduly restrict its long-term financial prospects.

CONCLUSIONS

Amtrak has pledged to eliminate its need for federal operating support by fiscal year 2002 by increasing revenues, controlling costs, and providing customers with high-quality service. Although its business plans have helped reduce net losses, Amtrak continues to face significant challenges in accomplishing this goal, and it will likely continue to require substantial federal financial support—both operating and capital—well into the future if it is to continue with its present national structure. Consequently, in today's budget environment, the Congress faces fundamental decisions involving Amtrak's future as a national passenger rail system.

SELECTED U.S. GENERAL ACCOUNTING OFFICE REPORTS ON AMTRAK

1. *Intercity Passenger Rail: Amtrak's Financial Crisis Threatens Continued Viability* (GAO/T-RCED-97-147, Apr. 23, 1997).
2. *Amtrak's Strategic Business Plan: Progress to Date* (GAO/RCED-96-187, July 24, 1996).
3. *Northeast Rail Corridor: Information on Users, Funding Sources, and Expenditures* (GAO/RCED-96-144, June 27, 1996).
4. *Amtrak: Early Progress Made in Implementing Strategic Business Plan, but Obstacles Remain* (GAO/T-RCED-95-227, June 16, 1995).
5. *Intercity Passenger Rail: Financial and Operating Conditions Threaten Amtrak's Long-Term Viability* (GAO/RCED-95-71, Feb. 6, 1995).

THE PERSPECTIVE OF THE FREIGHT RAILROADS ON RAIL PASSENGER ISSUES

Karen Borlaug Phillips
Association of American Railroads

As transportation policymakers are well aware, Amtrak faces many crucial issues as it seeks to survive. In addition to the various financial and operational issues associated with rail passenger service that must be considered, the perspective of the freight railroads must be included in any examination of the viability of continued rail passenger service. Amtrak operates over 23,750 route miles owned by the freight railroads and 750 miles that it owns. Given Amtrak's extensive operations using the freight railroads' facilities, and the statutory conditions established for that use, the freight railroad industry has a major stake in ongoing deliberations about the future of intercity passenger rail service in the United States.

HISTORICAL BACKGROUND

Before discussing the current situation, it is important to place today's debate in historic context. The Rail Passenger Service Act of 1970 enabled railroads to exit from unprofitable intercity passenger operations, but this relief came at a price. Specifically, the freight railroads capitalized Amtrak with an initial infusion of \$865 million (stated in 1997 dollars) in assets and funds. Further, Congress mandated that Amtrak pay only the incremental costs to the freight railroads for the use of their rights-of-way and other facilities.

Given the railroads' bleak financial situation and underutilized capacity in the 1970s, it is not surprising that the railroads accepted these terms. Had Amtrak not been created, the railroads, eventually, would have exited intercity passenger service. This would have been a time-consuming process, however, during which the railroads would have continued to incur large financial losses associated with passenger operations. By contrast, the Rail Passenger Service Act offered immediate relief from the financial drain of passenger operations, enabling the railroads to turn their attention fully to freight service.

The situation has changed dramatically since the early 1970's. At that time, pervasive economic regulation prevented the industry from competing effectively with other modes for freight shipments, and the industry's infrastructure was greatly underutilized. Today, the railroads have serious capacity problems on major freight corridors. Amtrak trains occupy prized corridor slots, and they secure access at less than market rate levels, which results in a substantial financial

subsidy from freight to passenger service. In fact, one freight railroad has estimated that it subsidizes Amtrak service at over \$50 million annually.

The freight railroads are not asking Congress to allow them to raise the rates Amtrak now pays to the freight railroads to market levels. That would be impracticable. It is important, however, that Congress and policymakers bear in mind the existing subsidy when considering the sources from which future contributions should be made.

CURRENT CONCERNS

In recent years, Amtrak has undertaken a number of initiatives that have enabled it to begin to reduce its costs and address its revenue shortfalls. Clearly, significant changes are needed if nationwide rail passenger service is to survive. Congress must enact fundamental reforms if it wants to preserve any form of intercity rail passenger service. These reforms are essential to enable Amtrak to operate in a more businesslike manner. These include:

- Liability reforms to ensure that the allocation of liability agreed to by both the freight railroads and Amtrak is enacted by Congress, and to provide a level of protection against excessive punitive damages similar to that which is enjoyed by the federal government and most commuter authorities;
- Operational reforms, including an evaluation of the Amtrak route system to eliminate unprofitable routes; and Labor reforms—for example, an examination of the six-year mandatory labor protection currently in place for Amtrak employees and Amtrak's ability to contract out for certain functions.

Congress also must provide Amtrak with a continuing and stable source of funds. Experience has shown that intercity passenger rail service on a broad scale simply is not profitable in this country or in any other major nation without continued, substantial public subsidy. Amtrak is the creation and the responsibility of the federal government, not the freight railroads. It would not be fair to require the freight railroads to increase the amount of the subsidy they already provide to Amtrak.

AMTRAK RESTRUCTURING LEGISLATION

There are a number of Congressional initiatives underway

dealing with the issue of Amtrak restructuring, each of which addresses critical issues associated with Amtrak's future. Two initiatives are particularly noteworthy.⁽³⁾ The first is S. 738, the "Amtrak Reform and Accountability Act of 1997," which was introduced on May 14, 1997 by Senator Kay Bailey Hutchison, Chairwoman of the Subcommittee on Surface Transportation and Merchant Marine of the Senate Committee on Commerce, Science, and Transportation. As introduced, the legislation requires Amtrak to bargain with its unions in the absence of a six-year government-mandated labor protection requirement, eliminates the prohibition on Amtrak's ability to contract out for services, caps punitive damages at the greater of two times compensatory damages or \$250,000, ensures enforceability of indemnification agreements between the freight railroads and Amtrak, requires an independent audit of Amtrak, and creates an Amtrak Reform Council.⁽⁴⁾ Second, on March 20, 1997, the leadership of the House Committee on Transportation and Infrastructure created a bipartisan blue-ribbon Working Group on Inter-City Passenger Rail to study the future of passenger rail transportation.

There are four major elements that the freight railroads believe are crucial in any Amtrak restructuring legislation.

1. Liability

Amtrak restructuring legislation needs to include liability reform. Legislation passed by the House of Representatives and the Senate Commerce Committee during the 104th Congress recognized the importance of liability reform in any restructuring of Amtrak.⁽⁵⁾

Since 1971, Amtrak and the freight railroads have used shared liability agreements to apportion risk. These agreements assign, on a contractual no-fault basis, risk of liability for Amtrak passenger operations between Amtrak and the freight railroads over which Amtrak trains travel. These agreements do not, however, dictate what the terms of the contract must be; Amtrak and the freight railroads have to negotiate under what circumstances they will allocate responsibility. Liability generally has been divided as follows: Amtrak assumes responsibility for its passengers, employees, damage to its property, and grade-crossing accidents involving Amtrak trains; the freight railroads assume liability for their employees and damage to their property. In the wake of an accident, Amtrak and the freight railroad can concentrate on defending the claims for which each is responsible, rather than spending time and effort determining who was at fault. In recent years, however, uncertainty has arisen as to the enforceability of the indemnification agreements.⁽⁶⁾ This legal uncertainty should be removed.

The possibility of the imposition of punitive damages is a particularly serious threat to Amtrak's survival. As the

only federally chartered passenger service, and as an entity which was created by Congress as a for-profit corporation, Amtrak faces the worst possible exposure for personal injury. Because it is federally chartered, many immunities under state laws applicable to state-chartered commuter authorities do not apply to Amtrak. Because it is a for-profit entity, and not a government agency, the immunity from punitive damages enjoyed by federal agencies does not apply.

Opponents of liability reforms have asserted that limitations on liability would hamper safety. There is no evidence to support such a claim. In fact, because Amtrak and the freight railroads share liability for accidents under existing agreements, both sides always have a strong incentive to operate safely (There is no evidence, for example, that immunity from punitive damages has ever contributed to State rail commuter authority accidents.). Enforcement of rail safety laws also promotes safe passenger operations.

2. Access

Part of the discussion about the future of passenger rail has included the concept of transferring major segments of Amtrak's franchise to others, particularly state or local authorities. If Congress determines that all or part of Amtrak's unique franchise should be transferred to other entities, it is essential that the terms of any such transfer(s) be agreed to in the context of negotiations between the other entity and the freight railroad providing the underlying facilities.

The conditions under which Amtrak operates, especially the legislated access to the freight railroads' facilities on an incremental cost basis, are unique to the participants in the original agreement—the federal government, Amtrak, and the freight railroads. If others are asked to provide services formerly operated by Amtrak, the freight railroads must retain the right to decline the use of their facilities until they have negotiated new terms and are satisfied that acceptable operating practices will be observed. Amtrak's unique franchise is not legally transferable to other parties without the approval of the underlying owners.

3. Railroad Retirement

The Railroad Retirement System is a unique retirement system—a combination of benefits conferred under Social Security (Tier I) and elements of private pension plans (Tier II). This system is a pooling in which all participants contribute an identical statutory amount per employee to fund the collective, standardized retirement costs of all rail industry employees.

Railroad Retirement covers all facets of the railroad

industry, including freight, passenger, and commuter railroads. The integrity of the system is based upon all participating entities contributing their apportioned share, in terms of the current number of active workers, of the industry's retirement expenses. Under such a system, certain firms will at some time pay more into the system than the cost of the benefits their current employees will receive, while other firms may pay less.

However, Amtrak cannot be relieved of its responsibilities to the Railroad Retirement System based on its current proportional retirement costs under the system. Such a selective deviation would undermine the basic structure of the system. If Congress chooses to relieve Amtrak of its statutory obligation to the Railroad Retirement System, however, Congress should continue to provide the necessary amounts directly to the Railroad Retirement Board.

4. Tax Support for Amtrak

The nation's freight railroads will continue to cooperate with Amtrak if Congress believes that intercity passenger service is in the public interest and is willing to make the commitment to save it. However, the freight railroad industry should not be required to support or subsidize Amtrak more than it already does. Subsidization of rail passenger service by rail freight service was not successful before Amtrak was created and it will not work now.

It is important to recognize that the freight railroads do not profit from Amtrak operations. As noted earlier, of all the suppliers from whom Amtrak buys goods or services, it is only the freight railroads to whom Amtrak does not pay a fair market value for the services and facilities Amtrak uses.

Compounding this problem is the fact that the railroad industry pays more in deficit reduction fuel taxes than its principal competitor—the trucking industry. The railroads currently pay 5.55 cents/gallon to the general fund for deficit reduction, while other transportation modes pay only 4.3 cents/gallon. There is no justification for railroads to pay deficit fuel taxes at a higher rate than their competitors.

Proposals that would use a portion of deficit reduction taxes for Amtrak would further exacerbate the deficit reduction fuel tax problem. For example, diversion of 0.5 cent/gallon of the deficit reduction diesel fuel tax to an intercity passenger trust fund would increase the freight railroads' subsidization of Amtrak by an additional \$19 million annually (For example, S. 436, the "Intercity Passenger Rail Trust Fund Act of 1997" would divert 0.5 cent/gallon of the deficit reduction fuel taxes paid by transportation industries into a Passenger Rail Trust Fund. According to the legislation's chief sponsor, Senator Roth,.....note budget resolution). The freight railroads do not oppose creation of such an intercity passenger rail fund

per se; it would be inappropriate, however, to require freight railroads to contribute to this fund, because it is unfair to require shippers of rail freight to financially support passenger rail operations. In addition, freight railroads already subsidize Amtrak by receiving only incremental costs for mandatory access to their tracks.

POTENTIAL EXPANDED AMTRAK FREIGHT OPERATIONS

Lastly, Amtrak's proposal to expand its mail and express business as a means of generating additional revenues must be noted in the context of any policy discussion about the future of rail passenger transportation. The freight railroads have serious concerns about this proposal.

Historically, passenger trains carried U.S. mail and a limited amount of express business. Consequently, Congress authorized Amtrak to carry some mail and express cars incidental to its passenger business. The freight railroads assert that it clearly was not Congress' intent that Amtrak, an entity subsidized by the federal government and the freight railroads, be allowed to compete with the freight railroads for express freight, which is an important part of the freight railroads' existing and potential business base.

A quasi-governmental entity should not be permitted to use government powers to take business from private taxpaying companies to subsidize passenger trains.

Likewise, the freight railroads believe that Amtrak should not be allowed to force private railroads to carry its express/freight trains on a subsidized and prioritized basis. To impose such a burden on the nation's freight railroads would raise serious public policy questions with constitutional implications. Instead, Amtrak and the individual freight railroads need to agree on appropriate lines of demarcation for the express Amtrak seeks to carry, in a truly collaborative relationship.

CONCLUSIONS

Amtrak indeed is at a crossroads. Congress must decide soon whether it wants a national rail passenger system in the United States. If Congress wants to save the system, it is essential that fundamental reforms addressing liability, operational, and labor issues be enacted. It also is essential that the costs associated with saving the system be borne by the public—or at least by those who use intercity passenger transportation—not the freight railroads that already subsidize Amtrak.

ENDNOTES

- 1) This paper is based largely on AAR's testimony submitted to the Senate Committee on Commerce, Science and Transportation for the Subcommittee on Surface Transportation and Merchant Marine's Amtrak oversight hearing on March 13, 1997.
- 2) Union Pacific Railroad, *Union Pacific and Amtrak: "The Current Level of Subsidy,"* February 1997.
- 3) Other initiatives include H.R. 1666, the "Amtrak Privatization Act" and H.R. 1210, the "Amtrak Route Closure and Route Realignment Act of 1997." In addition, the Clinton Administration's FY 1998 budget includes \$423 million in capital assistance and \$344 million in operating assistance for Amtrak from the Highway Trust Fund.
- 4) The working group's members included: Tom Larson (Chairman), Pat Cleary, Nancy Rutledge Connery, James Florio, Christopher K. Gleason, D.T. Ignacio Jayanti, Paul A. Karas, Robert R. Kiley, Alan Landes, John G. Pinto, Phyllis F. Scheinberg, Carl E. Van Horn, Robin H. H. Wilson. Subsequent to this conference, on June 23, 1997, the Working Group on Inter-city Passenger Rail issued its report, *A New Vision for America's Passenger Rail*. A majority of the working group advocated a division of passenger rail infrastructure management and operations, together with a stable and permanent commitment by the Federal Government to fund intercity passenger rail infrastructure costs, the elimination of operating subsidies for passenger rail operators, and the introduction of competition among these operators.
- 5) H.R. 1788, as passed by the House of Representatives during the 104th Congress, would have limited punitive damages to the greater of three times economic damages or \$250,000, but would have limited non-economic damages—e.g., pain and suffering— to a maximum of \$250,000 over the economic loss. S. 1318, as passed by the Senate Committee on Commerce, Science, and Transportation during the 104th Congress, would have capped punitive damages for Amtrak accidents at the greater of two times compensatory damages or \$250,000. There was no cap on pain and suffering or economic damages.
Subsequent to this conference, the Senate Commerce Committee ordered reported S. 738 on June 26. Attempts in committee to repeal the limitations on liability and to prohibit Amtrak from indemnifying the freight railroads for gross negligence were defeated.
- 6) Following the Chase, MD accident in 1987 involving a collision between a Conrail locomotive and an Amtrak train, the United States District Court for the District of Columbia held that the indemnification was unenforceable because of the gross negligence of the Conrail engineer that caused the accident. The district court's opinion was vacated on procedural grounds, but Amtrak and Conrail settled their differences related to this accident before the indemnification issue could be judicially resolved; see letter from Edwin L. Harper, President and Chief Executive Officer, Association of American Railroads and Thomas M. Downs, Chairman and President, National Railroad Passenger Corporation, to Members of the United States Senate, March 14, 1996.

CREDIT ISSUES FOR PASSENGER RAILROADS

Robert E. Schulz
Standard & Poor's Debt Rating

INTRODUCTION

This article discusses how Standard & Poor's analyzes the financial strength of passenger railroads. While we do not have a public debt rating on Amtrak, we do rate seven railroads around the world that have passenger operations. Regulatory and operating characteristics vary from country to country, so I will concentrate on highlighting some of the important issues that we evaluate in determining credit ratings of railroads involved in passenger operations. First, a couple of observations about Amtrak compared to most of the international passenger rails that I will describe later. As many of you know, Amtrak typically covers a greater proportion of its costs from passenger revenue than many international railroads. Ironically given what I just said about covering costs from passengers revenues, most of the non-US passenger railroads receive more consistent government support than does Amtrak.

WHAT THE DEBT RATINGS MEAN

The scale for Issuer and Issue ratings is AAA to D, with pluses and minuses in each grade—except D. S&P's Issuer credit ratings are our current opinion of a company's overall financial capacity to pay its financial obligations. Thus Issuer ratings basically measure risk of insolvency.

Issue credit ratings, on the other hand, are our current opinion of the creditworthiness of an obligor with respect to a specific financial obligation, which takes into account the provisions of the obligation and the relative position of the obligation in a bankruptcy, reorganization or other insolvency proceeding. We always start by assigning an Issuer rating and then look at the details of the issue to assign an issue rating. Either type of rating is not a recommendation to purchase or hold securities or a general purpose evaluation of the issuer. Rating Outlooks, either Positive, Stable or Negative, have been attached to every rating since 1986. The Outlook assesses the potential for change over a longer time period, usually one to three years. The Outlook statement incorporates trends or risks with less certain implications for credit quality. A Stable Outlook is not an opinion that the issuer's financial performance is necessarily expected to be stable, but rather

that within expected ranges of performance, no changes in the rating are anticipated.

PASSENGER RAILROAD RATING CONSIDERATIONS

We divide the analytics into two categories—Business Risk and Financial Risk. The business risk side is used as a context for viewing the more quantitative financial risk factors. One difference in analyzing a pure private sector company versus a pure government supported company is the concept of bottom-up analysis versus top-down. If significant, consistent government support represents, by far,, the underpinnings of the credit, then a top-down analysis is likely to be appropriate, while for private companies, a stand-alone or bottom-up approach is more accurate. For companies that fall in the middle due to partial, inconsistent or eroding government support a hybrid approach is appropriate. There are many different forms of government support that we evaluate, including support separate from ownership. Consistency counts.

“What weighting do the numbers get,” is a question many people ask. Well, at times a rating decision will be strongly influenced by financial measures. At other times, business risk factors may dominate. However, each rating analysis begins with an assessment of a company's industry environment. While a particular financial profile can be the overriding rating consideration, the industry risk assessment goes a long way toward setting the upper limit on the rating to which any issuer can aspire. So, there is no black box of number crunching, out of which the rating is generated.

INDUSTRY RISK

Absent government support, which I will discuss in a moment, we generally view the passenger railroad industry as having “worse-than average” industry risk, compared to other non-financial industry segments. This is largely due to the difficulty in making an operating profit, without some form of government support. By way of comparison, we view the industry risk of the airline industry as also worse than average, for different reasons, while the US freight railroad industry is seen as having better than average risk characteristics due to relatively stable demand for services, high barriers to entry, and good access to capital. Because of the risk characteristics of passenger rails, all of our ratings incorporate varying levels

of government support, including outright sovereign guarantees, provisions for operating and capital subsidies and lesser forms of support such as stated public policy in favor of rail, partial government ownership, or a supportive regulatory structure,

COMPETITION & BARRIERS TO ENTRY

Competition among all types of rails is limited somewhat by the cost and near impossibility of obtaining land for significant new rail lines, but unlike freight railroads, the passenger railroads face can face far greater competition from other modes of transportation, depending on the country. Distinctions need to be drawn as well between commuter rail and long-haul operations.

REVENUE DETERMINANTS

Looking at what drives revenue, we view service territory as the largest determinant of traffic mix and degree of competition. The passenger railroad industry is mature in almost all developed countries. Route structure and density are factors in profitability and degree of competitiveness.

COST STRUCTURE

Labor, including wages, health and pension benefits and payroll taxes, is typically the largest component of cost and is generally higher for passenger than freight railroads or airlines. Productivity and cost control are therefore crucial to improve competitiveness. Fuel costs tend to be the next largest costs component. Operating leverage—the proportion of costs which are fixed—is high, as with all modes of transportation that operate on a fixed schedule and offer a “perishable” product—available space for a specific destination at a specific time. Access to equipment financing is worse than for airline or freight railroads because of the more limited potential uses of the equipment. Expenditures for track and facilities are typically financed using internal resources or general purpose debt.

INDUSTRY POSITION

For passenger rail, due to their typically monopolistic position within rail, the industry position comparison is really with other modes of transportation. Unlike an airline, it is difficult for passenger railroads to develop new markets or leave less desirable ones, so their flexibility is less than for the airlines. For traffic and yield measures, one

must be aware of how the choice of measurement can affect comparison. Statistics are affected by the type of passenger and length of transit. As with most transportation industries, which have high operating leverage, density of traffic is almost always a good thing. Service quality is crucial in recapturing passengers which have left for other modes. For freight railroads or air freight, there is a saying about the use of older, used equipment—the freight doesn't care. This is not the case for passenger railroads, so passenger rails face higher spending requirements on revenue equipment, more akin to the passenger airline industry. Freight railroads have a cost advantage on the long distance line haul over trucks, but worse on-time service. Passenger rails generally do not have a cost advantage, unless the competing airline industry is still heavily regulated or priced high due to a supply shortage. In terms of equipment, the focus is whether a railroad is ahead or behind in investing in its assets. This is an issue of financial flexibility as well as operating efficiency. On the cost side, the labor issue is a complex one, involving multiple unions, often arcane work rules, as well as pay. Salaries, wages and benefits can be 50% or more of expenses so the labor situation is usually an important driver of profitability or lack thereof.

OPERATING PROFITABILITY

The key measure of operating profitability is the operating ratio—operating expenses as a percent of operating revenues—but this can be distorted by leasing or special charges. Clearly, a special charge drives up that year's operating ratio to a misleading extent. On the other hand you can't simply ignore the special charge.

MANAGEMENT

Evaluating management's strategic and financial planning strategies is a key objective. We look at historical performance vs. peers, and examples of innovation and flexibility in reacting to change, among other things. Management is evaluated over the course of its relationship with S&P as well. Certain management teams have established more credibility than others and this can be an influencing factor in the rating process long term. We divide the evaluation of management into operating skill and financial policy components. AU freight railroad management have had to deal with a changing competitive and regulatory environment and transition from a hierarchical, quasi military, utility mentality to become customer oriented. Initially many were slow to respond to competition and the need to adapt their service to

customer requirements, but this has changed. For the passenger railroads, many are still operating under the former environment and expending varying degrees of effort to change. We evaluate how the management is balancing the tradeoff between owner and creditor interests. One indicator of the balance is the nature of any targeted financial structure, and the degree of commitment to reaching and maintaining it. The influence of supporting government entities can be a significant influencing factor. That concludes the qualitative aspects and I can't stress enough how much these qualitative areas set the base for the evaluation of the numbers.

RATING COMMITTEE

The qualitative and quantitative factors for each company are considered by a rating committee. Each analytical category is evaluated and considered by a rating committee to arrive at the rating. We look at the numbers relative to the business risk and consider the cash flow and financial flexibility to be extremely important. With all financial measures, we are focusing on expected performance in the future, and using historical results to the extent that they help in that projection.

IMPORTANCE OF GOVERNMENT SUPPORT

To indicate how important government support is the ratings of the passenger railroad industry, note that all

ratings for passenger railroads are all in the 'A' category or better, with the exception of the one railroad that does not have government support. One note—if the sovereign rating is low, than the rating for a government supported passenger railroad would also be low. This 'A' or better rating level is in contrast to the US freight railroads, some of the most efficient in the world, almost all of whom are rated in the IBBB' category and the US passenger airlines, only one of whom is investment grade. So, you can begin to see the impact of government support on the ratings.

Without spending lots of time discussing median ratios and other modes of transportation, suffice to say that credit ratios for most of the higher rated passenger railroads would be considered very weak for their respective rating categories, which again speaks to the weight we place on a particular passenger railroad's share of government support. Two further examples to illustrate the impact of support are situation where companies are or were privatized—Canadian National Railway's privatization in 1995 and the proposed sale of the Australian government's share of National Rail Corp. In the case of Canadian National, the privatized company has made great progress in improving efficiency and competitive position, but our rating on the privatized company is lower than when it was unprofitable, but owned by the government. National Raff Corp. is on CreditWatch Negative with a rating of 'A-' since the government announced it may sell its ownership.

INSTITUTIONAL CHALLENGES: MAKING RAIL REVITALIZATION HAPPEN

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EXECUTIVE SUMMARY

The conflict built into Amtrak's institutional design as a "quasi-public, for-profit" corporation has long hindered passenger rail policy in America. Mandated to operate a national system with many economic and political constraints, the corporation has been dependent on Congress for increasingly scarce capital funds and operating subsidies. Debate over Amtrak's problems has been stalemated between "Skeptics," who see passenger trains as relics of the past and seek to end subsidies and privatize the corporation, and "Supporters" who emphasize social benefits and want to preserve as many trains as possible. While Amtrak has confronted financial crises before, today's combination of a cash crunch with this year's ISTEA reauthorization offers a unique opportunity to reinvent and renew the institutional framework of passenger rail policy.

By interrelating the two key institutional dimensions of American policy making, Federal v. State government responsibilities and Public sector v. Private market dynamics, we construct five scenarios for the future of passenger rail policy. The **Partnership** scenario keeps policy leadership at the federal level and in the public sector. It depends on Amtrak being brought into the infrastructure trust fund system that has worked successfully for highways, airlines and urban transit. **Positive Privatization** would bring passenger rail service into the private sector, but would require a "dowry" of public expenditures to make it attractive to private operators. **Picking Up the Pieces** sees policy leadership shifting to the state level as the federal government fails to resolve Amtrak's fiscal difficulties. Service is more efficient and better tailored to local needs, but the national system is lost. The **For-Profit High Speed Rail** scenario might develop in parallel with other scenarios. It sees states investing in HSR infrastructure, and private operators buying the equipment and managing the service. Finally, **Liquidation** is always possible, but it may not be as cheap and clear cut as some hope, since litigation would be extensive and unpredictable court decisions could increase costs dramatically.

Both "Skeptics" and "Supporters" are encouraged to break out of the impasse by envisioning a new balance of political responsibilities and a new division of economic

labor for the future of passenger rail in America. By carefully weighing the capabilities and limitations of federal and state governments as policy leaders, as well as public and private sectors as implementing organizations, today's policy makers may achieve a new institutional framework for passenger rail policy that avoids the contradictions of the 1971 Amtrak charter. In particular, they should make provisions for a smooth transition between scenarios, and should discard the administrative and financial inflexibility for passenger trains that ISTEA is helping to overcome in the other surface transportation modes.

INTRODUCTION

In an earlier paper we argued that Amtrak's design as a "quasi-public, for-profit" corporation was seriously flawed from its beginnings. (Perl and Dunn, 1997) The product of an uneasy compromise between abandoning money-losing passenger rail service, preserving railroad workers' jobs, and sustaining a national passenger train network, Amtrak's ambiguous mandate left it isolated from America's private railroads, and isolated from the trust funding financial mechanisms that supported highways, airports and mass transit. It had to depend on powerful congressional patrons and labor union support for protection from executive branch budget cuts. The price for this protection was diffusing government support and managerial energies into an expensive national route network, whose costs precluded profitability for Amtrak as a whole.

The glib promises of the early 1970s that Amtrak would soon pay its own way gave way to a period of growing subsidies. This was followed in the early 1980s by a sharp reaction against the subsidies, and in certain circles by a reaction against the very idea of Amtrak. Since then the public policy debate over passenger rail issues has become mired in an ideological, intellectual, and political impasse. Policy actors whom we call "the skeptics" recommend "zeroing out," or privatizing Amtrak, while the policy actors we call "the supporters" fight to preserve federal financial support, existing trains and routes, and established labor protections. Compromises have been limited and tactical, forced by financial necessity and the pressure of constituencies threatened with loss of train service. There has been little intellectual or political movement toward common ground that would constitute a vision of how to address Amtrak's real institutional deficiencies while at the same time enhancing intercity passenger rail's performance as part of the nation's future

transportation system. This paper explores possibilities for moving the policy debate beyond this ideological and intellectual impasse to open up new ways of seeing the problem and new ways of developing solutions.

THE IMPASSE

The Skeptics

From George W. Hilton (1980) to the Cato Institute (Love, Cox and Moore, 1996), the skeptics have criticized Amtrak for its failure to live up to its "for profit" mandate. They have also sought to puncture supporters' over enthusiastic claims for energy savings, congestion relief, pollution reduction, etc. They have drawn attention to the financial and opportunity costs of continuing to support a passenger rail system that does not (and can not, in their estimate) live up to its billing. Skeptics' understanding of transportation choices focuses on markets, individual autonomy and the advantages of competing technologies. In a world where travelers want to move as fast and freely as possible, aircraft and automobiles offer inherent advantages that will lead to the inevitable eclipse of the passenger train.

Such a paradigm leads skeptics to overlook a major opportunity in America's passenger rail policy, namely the chance to redeploy capital and human resources, concentrating them in the corridors with the greatest potential for ridership, and hence the greatest potential for both increased revenues and increased positive externalities. Skeptics concentrate their intellectual efforts on criticism, rather than on attempts to move beyond the design imposed on Amtrak by the ambiguous political understanding which accompanied the corporation's creation over 25 years ago.

Thus the weakness of the skeptics' case—as a policy prescription—is that it does not offer new benefits to new groups, or a way of preserving existing benefits more efficiently. It implicitly (and often explicitly) calls for the end of intercity passenger rail service in the U.S. Their policy would concentrate costs on groups (current riders, communities with existing service, Amtrak employees, etc.) with a strong incentive to oppose it, while providing diffuse benefits to the general taxpayers and the impersonal public treasury. The skeptics realize that the nature of U.S. politics makes such a shift in costs very difficult, hence their recommendation to privatize Amtrak. The private enterprise model is legitimate and well-understood. Since private companies close plants and lay off workers all the time, the skeptics see privatization as the perfect instrument for ending federal subsidies (and almost certainly most intercity passenger trains), and doing it in a

way which insulates public officials from political criticism by disappointed constituents.

The Supporters

Supporters rightly fear that privatization is merely a way station on the road to abolishing the national system and perhaps all intercity passenger rail service. They not only oppose privatization in principle, they oppose any and all efforts to cut back on train service, even those proposed by current Amtrak management. Supporters embrace a long-term historical perspective that extends backward to alleged policy injustices suffered by railroads in relation to air and highway modes (Goddard, 1994) as well as forward to a time when energy and environmental limits will again make passenger trains a necessity (Vranich, 1991).

The weakness of the supporters' case—as a policy prescription—is that they offer neither realistic new goals nor more efficient ways of achieving existing ones. They often find themselves trying to rebut every attack and defend every train, regardless of how few passengers it moves or how much money it loses (Capon, 1997). Looking backward to past mistakes and forward to future possibilities, supporters miss the need to confront the political logic of Amtrak's "for profit" mandate in the present. The powerful appeal of the "for profit" model and mandate puts them on a permanent defensive.

This defensiveness leads congressional supporters to also overlook opportunities for redeploying Amtrak's resources more effectively. They feel that privatization and/or moving away from a national system will reduce their influence over corporate decisions and threaten trains in their home districts. They dig in their heels to defend as much of the status quo as budgetary circumstances and political influence will allow. They, too, tend to fail to see the opportunities that breaking out of the ideas associated with political and institutional arrangements from the early 1970s would generate for U.S. passenger rail policy.

This intellectual and policy impasse has put Amtrak in a holding pattern. The status quo of operating a national route system has been maintained by political inertia, and to keep future options open, as much as to achieve any targeted economic, environmental or social benefits. But in 1997, circumstances appear set to move intercity passenger rail out of this holding pattern.

THE OPPORTUNITY

In American politics, the opportunity for major policy innovations generally occurs in one of two ways. The first is through a dramatic crisis that captures public attention and requires governmental action. Sometimes a broad systemic crisis such as the Great Depression or a moral

crisis such as the civil rights movement will generate a wide array of new policies and new institutions. More commonly, a financial crisis of a major public or private organization threatens to cut services and jobs to an important segment of society. This provides the occasion for a more focused but equally important policy response.

The transportation sector has had its share of crisis-driven policy initiatives, and some of the biggest have involved the rail mode. When the Penn Central Railroad filed for bankruptcy in 1970, the decline of America's rail industry was thrust onto the federal government's agenda by a crisis that could no longer be avoided. The shock waves created by Penn Central's bankruptcy surpassed prior corporate failures by an order of magnitude. They forced Congress to confront a whole host of problems from maintaining essential freight services in the Northeast and Midwest to preventing the shut-down of commuter rail operations into some of America's largest cities. Stopgap measures like the Regional Rail Reorganization Act (the "3R Act") kept trains running while a policy framework was created to restructure Penn Central and the other Northeast and Midwest railroads that followed it into bankruptcy. The resulting achievements, both the publicly funded and managed creation of Conrail and the Staggers Act's deregulation of the entire rail sector, can be traced to the window of opportunity for policy change triggered by the Penn Central bankruptcy (Weaver, 1985)

Amtrak's own inception was spurred by Penn Central's decline. In 1969, that railroad proposed abandoning all its passenger trains west of Buffalo and Harrisburg, breaking key East-West links in America's passenger rail network. The total number of discontinuance petitions pending before the Interstate Commerce Commission left little doubt that America's intercity passenger trains were an endangered species. With private railroads anxious to be relieved of the burden of operating money-losing passenger service, and states, cities, labor unions, and passengers bent on preserving passenger trains as a transportation option, a decision to do something could not be avoided. The resulting federal initiative yielded Amtrak as we know it. (Itzkoff, 1985)

The second type of opportunity for policy innovation comes from the need to periodically reexamine existing programs and reauthorize the legislation on which such programs are based. Highway policy, for example, has evolved significantly through this alternative process of periodic incremental adjustments. Since the 1970s, highway legislation has incorporated provisions to mitigate environmental impacts and moderate neighborhood disruption. It has even accommodated provisions for states to transfer Interstate money to urban mass transportation projects and to create a mass transit account in the highway trust fund. The political process which resulted in the 1991

Intermodal Surface Transportation Efficiency Act (ISTEA) introduced modest but significant innovations which allow local officials more choice in achieving environmental, land use, and transportation objectives. This periodic incremental approach to American transportation policy making shows how an ongoing series of modest changes can lead to profound transformation.

The present situation offers a new and distinctive opportunity to innovate in passenger rail policy because it has arrived on the federal agenda via both the crisis driven and incrementalist paths. The real possibility of an Amtrak bankruptcy makes the intercity passenger train an endangered species once again. (Scheinberg, 1997) This has renewed the debate on the value such passenger trains can offer Americans. At the same time, ISTEA's reauthorization presents another opportunity to connect this debate to the broader adjustment of American surface transportation planning and finance. For a change, Amtrak's specific financial problems may be serious enough to focus government's attention while coinciding with a wider consideration of surface transportation priorities.

THE OPTIONS: FIVE SCENARIOS

In this section we set out five scenarios for the future of intercity passenger rail policy in the United States. Rather than being definitive or mutually exclusive visions of where passenger train policy will go next, they are intended to stimulate discussion and thought about two interrelated questions: Where do we go from here? And how do we get from here to there? While the specific institutional changes required to introduce a decisive break from past policies defy prediction at this moment, our scenarios are meant to highlight the possibilities for transformation along two key dimensions which determine the institutional framework for most policies and programs in America with the policy instruments most likely to be used to shape passenger rail's future.

The first key dimension is the Federal—State axis. How much of the financial and rule making responsibility for a program belongs to the federal government, how much to state governments, and what are the terms and conditions under which the two levels cooperate and share responsibility for policy making and administration? The second dimension is the Public—Private axis. How much of any activity should be brought into the public sector if the consequences of leaving it to the private sector are deemed undesirable?

Within the broad framework created by the Federal—State and Public—Private dimensions, policy makers can use a "tool kit" of different policy instruments to try to achieve the right mix of ridership, revenue and political support needed to sustain passenger rail as a viable

mode of transportation. Some of these policy instruments may be more readily available or more effective at one level of government than another. Some may work better in a public sector context, some in a private sector context. The most important of these policy instruments are as follows:

- dedicated taxes and trust funds
- capital investments to attract riders
- operating subsidies
- increased payments from other levels of government
- service cutbacks
- improvements in labor productivity
- attracting private investment
- contracting out of service
- relief from costly public regulations

Interrelating the two broad institutional dimensions and mixing in different instruments from the policy tool kit, we can envisage four different scenarios, summarized in the table below.

	PUBLIC SECTOR	PRIVATE SECTOR
FEDERAL POLICY LEADERSHIP	<i>Partnership</i>	<i>Positive Privatization</i>
STATE POLICY LEADERSHIP	<i>Picking Up The Pieces</i>	<i>For-Profit HSR Initiatives</i>

To these we add a fifth scenario, *Liquidation*, which falls outside the ordinary framework of normal policy making but which might emerge if today's impasse drives Amtrak into insolvency. This matrix and its scenarios are tools to help us focus on key institutional issues amid the complexities of the debate on what to do about Amtrak's current crisis. They suggest the broad relationships between the political logic of state versus federal policy leadership on one hand, and the economic logic of operating passenger trains in the public versus the private sector on the other. Our categories should not be considered an exclusive, either/or form of classification. Thus the row identified as being characterized by "State Policy Leadership" does not mean that the federal government suddenly loses its current power and responsibilities. Rather, it suggests that most new policy initiatives and innovations will take place at the state level, with the federal government making reactive adjustments to the new situation. Similarly, the column

labeled "Private Sector" does not mean there is no government involvement at all in passenger rail, simply that institutional change will include a major increase of private participation.

We summarize the key institutional and political elements of our five scenarios as follows:

Partnership

Amtrak continues under an updated version of its original mandate, that of being a quasi-public corporation run on a for-profit basis in the public interest. It secures its base of federal support when Congress authorizes a half-cent per gallon intercity rail trust fund account for capital investments, finally putting rail on the same fiscal footing as other federally aided modes, highways, airways, and urban transit. It strives with some success to eliminate the need for federal operating subsidies by 2002, both by improved management and by broadening its base of financial support through financial partnerships with state governments and the private sector. States contribute by "flexing" a portion of their federal transportation funds to intercity rail projects, as well as by increased loans and direct payments for train services. Private partners could include firms that build rail equipment, communications companies seeking to share rights of way, utilities looking for "pollution credits" by supporting low emission transport modes, freight railroads interested in sharing upgraded track. With such partners "going to bat" for it politically, Amtrak enhances its relationships with state governments and competes rather successfully to provide future services, including high speed rail (HSR).

Positive Privatization

Rail's supporters recognize that the skeptics have enough legislative support to block any "quick fixes" in Amtrak's current predicament. Supporters acknowledge the criticism that Amtrak's politically mandated national route structure, labor protection requirements, and lack of entrepreneurial freedom have precluded commercial success. They in turn convince the skeptics that the best way to engineer a privatization that would end these constraints is to provide Amtrak with a "dowry" of federal investments in infrastructure and equipment and enough operating subsidies to keep the corporation operating smoothly through the transition phase to private ownership.

The Administration and Congress create a rail passenger privatization agency along the lines of the United States Railway Association (USRA). As the USRA did for Conrail, this agency acts as Amtrak's banker and broker on the path to privatization, managing operating subsidies and capital investment between now and 2002 in a way that

maximizes the company's acquisition value. The Northeast HSR project becomes a "jewel in the crown" of Amtrak's assets. As commercial revenues from HSR roll in, the new agency makes the decision on the best timing for and means by which privatization can emerge. This could range from seeking tenders for parts of Amtrak's operation to a public stock offering of the entire corporation. Both sides agree that this "positive" approach offers the most realistic chance of preserving, perhaps even enhancing, intercity passenger rail service while also ending direct federal operating responsibility and subsidies.

Picking up the Pieces

The debate over reforming Amtrak continues to be stalemated in Washington. Budget constraints or political opposition severely limit even emergency federal assistance to Amtrak, and service cutbacks are forced on it by mounting losses. The momentum for organizational and policy change moves increasingly to the state level as some states begin to "pick up the pieces" of Amtrak's faltering national system. The Northeast Corridor is eventually reorganized to operate under an interstate rail compact, with states contributing significant amounts of their own funds under a hard-bargained formula arrangement. States with existing intercity rail passenger support programs that now flow through Amtrak, like California, Illinois, Washington, and New York, are tempted to make alternative arrangements by new flexibility provisions introduced into federal transportation assistance programs by passage of NEXTEA, the administration's proposed National Economic Crossroads Transportation Efficiency Act. Their efforts build upon existing state successes in developing intercity passenger rail markets, and transform services that were chronically poor performers under Amtrak into thriving operations. The result is a rather disjointed and decentralized definition of intercity rail passenger needs, unlikely to sustain a national system in the short to medium term.

For-Profit High Speed Rail

While supporters and skeptics struggle over what to do about Amtrak, one or two states blaze a trail by launching new for profit initiatives in specific intercity corridors. These high speed trains aim to make money by attracting people who would otherwise drive or fly. Florida's Miami-Orlando-Tampa FOX proposal is the most advanced of such projects, and sets the pace for state initiatives elsewhere. These new projects are helped by some financial assistance from Washington (such as flexibility to spend portions of a state's federal transportation "entitlement" on HSR infrastructure, a special infrastructure lending

program, or federal appropriations for "projects of national significance"). But financing primarily comes from a combination of long term state funding for new HSR infrastructure and private investments in high speed rolling stock and working capital for private operation of the new lines. Public and private sector supporters of HSR begin to portray their early successes as the equivalent of state turnpikes, in relation to the federal interstate highway program—precursors of a new approach to intercity transportation spearheaded by states with especially propitious conditions for innovation.

Liquidation

The skeptics prevail in the political debate over federal involvement in intercity passenger rail service, and without an infusion of federal aid Amtrak is forced into bankruptcy. Unlike the "Positive Privatization" scenario, this strategy would seek to amputate passenger trains from the body of federal public policy responsibilities as quickly and cleanly as possible. In principle, the federal government would act to salvage its investment in Amtrak's assets while minimizing further expenditures. States, private bidders, and scrap dealers would be given an equal chance to buy a piece of Amtrak, with no strings attached in terms of future passenger train operations. In practice, the federal government, Amtrak's creditors and stakeholders, including its labor unions and states which have loaned it money, would likely become embroiled in a high stakes legal dispute over responsibility for approximately \$5 billion in debts and labor protection payments that came due when Amtrak ceased operations. Introducing bankruptcy proceedings and numerous other lawsuits into the equation would make the judiciary a major new participant in American rail passenger policy and thus make it virtually impossible to achieve the quick and clean policy amputation that makes liquidation appear attractive to some skeptics. But liquidation would end Amtrak's corporate existence as well as America's national passenger rail system.

ANALYSIS

Amtrak's current crisis gives every indication of approaching a day of reckoning when major decisions will have to be taken on changing the institutional framework governing the ways that trains provide passenger transportation in America. It is, of course, possible that a set of institutional changes resembling one of our scenarios might emerge as a clear choice. But it is much more likely that the political process, which depends on broad congressional support and compromise solutions, will produce a mixed result encompassing elements from several

scenarios. Institutional changes which appear in line with one scenario might also be tried for a while, only to be replaced or modified by elements we attribute to another scenario. Political, institutional and legislative reality will inevitably be more complex than our scenarios. Nevertheless, we believe that the following analysis can aid our thinking about reinventing the institutional framework of intercity passenger rail service by focusing on the balance of federal-state and public-private factors, the likely sequence by which the scenario might be adopted, and the distribution of risks and rewards associated with particular approaches to reform.

Partnership comes closest to maintaining Amtrak's traditional mix of federal responsibility for planning rail passenger policy with a public sector delivery mechanism. As such, it continues the current distribution of political and economic risks and responsibilities. Achieving this partnership is dependent on Amtrak getting the half-cent gas tax as a stable capital base. It would also require at least "glidepath" levels of operating funds to continue until 2002. Even then, since it is essentially an enhanced version of the status quo, many skeptics believe that Amtrak may still be in for serious financial difficulties. Thus the Partnership scenario may not be a stable long-term option for passenger rail, but it could easily be a vital transition stage, a bridge to one of the other scenarios.

As a bridge to the future, Partnership offers organizational and operational continuity with current passenger train services. Such continuity would be seen as a reward by those with a stake in Amtrak as it exists today, including rail labor, management, train riders, and public officials representing regions well-served by trains. But that same continuity carries the risk of not providing strong enough incentives for government officials, legislators, rail management and labor, and the public at large to take a new look at potentially more effective ways of delivering rail passenger service.

Positive Privatization would require an infusion of federal resources to move Amtrak from the public sector to being a private enterprise. This money would go to creating new infrastructure, buying out unproductive labor practices and staffing levels, and reducing Amtrak's debt. Without such public expenditures it is unlikely that profit-driven investors could be tempted to acquire financial responsibility for chronically unprofitable lines and services. International experience with privatizing transportation, especially rail-based services, indicates that attracting private entrepreneurs requires governments to attach attractive incentives such as preferential tax treatment and continued public subsidies to their offers. (Gomez-Ibanez and Meyer, 1993)

Private owners would be looking for substantial federal investments at the outset and continuing payments

from government as much as or more than public managers in the partnership scenario. The half-cent trust fund or its equivalent would be as vital to successful implementation of Positive Privatization as to Partnership. Legislative changes permitting modernization of Amtrak's labor protection agreements and work rules would also be vital to improving passenger rail's profit making potential. If appropriately funded, Positive Privatization promises short term financial rewards to investors and managers, with the greatest risks perceived by rail labor. Unions and other traditional rail supporters would worry about committing these public resources to private enterprise with reduced public and political accountability for decisions about line closures and service levels. Rail supporters' first preference will likely be Partnership. But supporters might be inclined to make a "leap of faith" to Positive Privatization if the alternative were Liquidation.

Picking up the Pieces would result from a continuing impasse at the federal level, such as failure to agree on providing sufficient capital and operating support to keep Amtrak going. But state-led initiatives to restructure passenger train service will require agreement on a different set of issues. For example, would successor operators at the state or regional level receive Amtrak's rights to operate over private rail lines under the same conditions? Would all of Amtrak's labor protection obligations also be transferred to these successors? Would the federal government have to pay off Amtrak's other debts, and how would it do so? Would the Northeast Corridor be transferred to a regional entity based on an interstate compact? What regulatory responsibilities, if any, would the federal government retain?

Shifting greater financial responsibility to the states would certainly put the national route structure at risk. The obstacles to coordinating policies between two or more states would be a real constraint on the extent to which this scenario could substitute for today's train network. Even in the Northeast Corridor, where the tracks are owned by the federal government and could be leased to the states, very hard bargaining would lie ahead of any effort to substitute a multi-state compact for today's funding and management arrangements. The rewards would come in the form of more efficient tailoring of services to markets and, possibly, more efficient operating rules and practices.

The emergence of For-Profit HSR could take place in several different sequences. The most likely would be if Partnership is pursued long enough to permit the successful introduction of high speed service on the Northeast corridor. If that service is successful, it would give a clear boost to HSR in other promising corridors. For-Profit HSR could also develop simultaneously with Partnership or Positive Privatization. Even if Amtrak's HSR is delayed,

it is possible that Florida's FOX project, for example, might be launched by a combination of federal aid as a "project of national significance," (thanks to intense lobbying by the Florida congressional delegation), and the state's decision to increase its share of the project's costs. This could attract enough private investment to legitimize the project and see it through to completion. It must be pointed out that, so far at least, private capital has been very hesitant to take on the lion's share of the risk of pioneering HSR in North America. In this scenario, then, a success for HSR in the Northeast Corridor enhances private investors' and states' willingness to launch initiatives elsewhere, while delay or downturn in the northeast would keep the political and economic risk of For-Profit HSR quite high.

Liquidation could occur after a financial collapse of Amtrak led to bankruptcy proceedings. But bankruptcy does not automatically entail liquidation. During the Penn Central's bankruptcy, Judge Fullham offered the government an all-or-nothing choice between paying for freight services to continue until the legal liabilities got sorted out or accepting a cessation of operations. The bleak alternatives of such a choice spurred the creation of the USRA and Conrail to deal with the hemorrhage of federal subsidies. So even bankruptcy would not automatically end the federal government's responsibilities for passenger rail service. Congress and the executive branch would have to make a choice. Even if they chose Liquidation, it would not necessarily mean the end of all intercity rail passenger service. A systematic settling of accounts might facilitate a Picking up the Pieces scenario, but with higher costs than if such a scenario occurred without bankruptcy. The inherent uncertainty of bankruptcy proceedings would make this scenario the most risky in both economic and political terms.

CONCLUSIONS

We have suggested that there are other possible ways of envisioning the future of American intercity passenger trains than the rival viewpoints that the skeptics and the supporters have debated for so many years. When the options boil down to "Save Amtrak (at any cost)" and "End All Subsidies," the very terms in which the policy debate is framed become an obstacle to finding more economically effective and politically acceptable solutions. We outlined and analyzed a number of different policy scenarios to suggest that there is a rich variety of other ways to frame future options. A serious effort to identify and evaluate the policy and institutional implications of these options is long overdue. Today's conjunction of Amtrak's fiscal crisis and the reauthorization of all other federal surface transportation funding offers the best opportunity to recast passenger train policy since 1971.

Necessity and opportunity have already coincided to initiate efforts to rethink America's passenger train problem, as illustrated by the recent report of the bipartisan, "blue ribbon" panel created by Representative Bud Shuster, Chair of the House Transportation and Infrastructure Committee. (U.S. Congress, 1997) While this panel made some progress in focusing on a common vision of rail passenger policy that could meet the goals of diverse constituencies and stakeholders, its final report reflected an ongoing impasse on the best means of achieving that vision. All of the group agreed that national passenger rail policy should aim at providing reliable, safe service in densely populated corridors, and that it should encourage public/private development of service in less populated regions where cultural, historic, or scenic factors warranted it. But participants split over how to achieve these goals.

The majority recommended that ownership of the physical infrastructure (track, signals, etc.) be institutionally separated from the responsibility for operating the service (running trains, selling tickets, etc.). A new public infrastructure entity, "Amrail," would acquire ownership of the Northeast corridor and also make needed rail infrastructure investments elsewhere, while Amtrak—and eventually other competing public or private rail enterprises—would concentrate on operating and marketing train travel. Transitional federal operating subsidies would save Amtrak from bankruptcy, but would drop off over time.

The panel's minority issued a dissenting report stating that the majority's solution was either unnecessary, since 95 percent of Amtrak's routes are owned by private railroads, or would be harmful because the one infrastructure that Amtrak already owns, the Northeast corridor, is America's most successful passenger rail operation. They argued that the majority adopted an "unwarranted pessimism about Amtrak's prospects," both financial and political. Preserving Amtrak as we know it was seen to be possible, and preferable to radical restructuring in terms of serving both densely populated corridors and the nation as a whole. The panel's split on the kinds of institutional changes needed to revitalize the passenger rail sector illustrates how the intellectual and political impasse we have identified remains a significant obstacle, perhaps the single greatest constraint, on formulating a successful new policy framework for America's passenger trains.

Our analysis suggests that reinventing the institutional framework for passenger rail policy requires a new consensus on the balance of responsibilities taken by the federal and state governments. It also demands a workable vision of how private enterprise could contribute to the management and operation of intercity passenger trains. Every other transportation mode in America has built its success by creating a balance along these two policy

parameters, where state and federal governments share political and financial responsibilities, and private industry develops a profitable division of labor in delivering mobility to Americans.

Our matrix on page 10 highlights a few simple permutations of policy which become possible when alternative roles for Washington and the states, and public and private enterprise, are placed on the table. But breaking the impasse requires more than placing innovative policy options on the table, as we and others have done. Moving beyond Amtrak's current handicaps also requires a transition strategy that can keep institutional experimentation within tolerable levels of risk. Actions taken with a view toward one new vision of policy should not preclude transition to an alternative approach if initial outcomes generate more problems and fewer solutions than predicted. Indeed, policy makers should build the flexibility to cope with unforeseen problems or to take advantage of unexpected opportunities into their restructuring schemes. For example, a trust fund for investment in intercity passenger rail infrastructure might be designed with built-in provisions for re-targeting revenues to states or other entities in the event of a successful positive privatization of Amtrak. Such a provision might even broaden the political support in Congress for creating the trust fund.

For all its achievements, indeed perhaps because of them, American transportation policy has historically had to grapple with the tendency toward inertia which has been labeled "institutional durability"—the way fiscal formulas, planning and implementation responsibilities are carved in stone at the inception of a policy framework (Perl, 1991). The federal-aid highway program was the classic example. It showed what a trust fund finance mechanism and a strong federal-state partnership could accomplish for highway infrastructure investment. It also demonstrated the risk of being left out of such a powerful infrastructure finance system, a lesson that was not lost on the aviation and urban mass transit sectors which followed suit with their own trust accounts. The ISTEA legislation of 1991 marked an important step away from inflexible institutional durability in surface transportation policy. But intercity passenger rail was the only surface transportation program untouched by this change. Fair-minded skeptics should be willing to acknowledge that this isolation from the nation's primary transportation infrastructure funding mechanism has contributed to Amtrak's current financial crisis. Fair-minded supporters should be equally ready to acknowledge the skeptics' concern that a rail passenger trust fund not be introduced as a blank check to continue all the uneconomic practices that have also contributed to Amtrak's plight. The challenge will be to end passenger rail's exclusion from the infrastructure finance mechanism while devising the right

institutional reforms to enhance productivity, to build partnerships with state and local authorities, and to devise opportunities for private investors and managers to contribute their resources and skills.

Re-envisioning the future of intercity passenger rail policy and re-engineering its institutional framework with careful attention to the federal-state and public-private dimensions, as well as the contingencies of policy transition, can help to resolve the long impasse in American passenger rail policy. When privatization is viewed not just as an ideological mandate but as a genuine alternative means of assuring that important segments of intercity train service gain a chance for survival and improvement, the political dynamics and economic impacts of federal subsidies change dramatically. And when states are seen not simply as last-ditch sources of revenues to keep trains running through a fiscal crisis at Amtrak, but as equal partners in delivering rail passenger service, more flexible ways of distributing federal infrastructure investments can attract broader political support for passenger trains without imposing conditions that would undermine their effectiveness.

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PERSPECTIVE OF THE FEDERAL RAILROAD ADMINISTRATION

Donald M. Itzkoff
Federal Railroad Administration

Yesterday, we heard many perspectives on the future of intercity passenger rail service in the United States, all of which are interesting, and most of which would require Congressional action.

That is why this conference is so timely. Appropriate action by the federal government—or the lack thereof—will determine the shape of rail passenger service into the next millennium. And as we consider the various ideas being advanced regarding intercity rail service that have been discussed: franchising, privatization, elimination of the legislative “shackles,” even forced institutional destabilization, whatever that might mean, we should be mindful of another concept from a different time and a different place but which I believe is most applicable here.

That is, let's not destroy the village in order to save it.

First, of course, we need to agree that the village should in fact be saved—that intercity passenger rail must remain a vital and integral part of our national transportation system.

Yesterday we heard, and all of you are intimately familiar with, the rationale for intercity rail passenger service, that:

- In some corridors, most notably the Northeast Corridor, Amtrak already plays an irreplaceable role in providing intercity public transportation.
- Rail is frequently a cost-effective option for improving intercity mobility.
- Rail is often the environmentally superior intercity transportation investment.
- Rail is energy efficient.

This is what we heard yesterday, from stakeholders, labor, customers and states, and as put so passionately by Senator Hutchison, and by Senator Roth's representative, that Amtrak is a vital part of our national transportation system. We even heard from the freight railroads that if the federal government continued to support intercity passenger rail then they too would respect the existing Amtrak enabling law.

So if we agree that the village must be preserved, how best to save it?

Yesterday, we heard a great many views on this subject. It was suggested that a “forced bankruptcy” would

enable necessary institutional reconfiguration. We heard about the issues related to privatization. Re-enfranchisement was considered. Interest group agendas that had little to do with the success of intercity rail passenger service were advocated. And we heard much about the “crippling Congressional mandates” that supposedly must be erased.

I would submit that nearly all of this is beside the point. We should not “blow apart” Amtrak just so we can “pick up the pieces.” Privatization is not an answer if preservation of a national system is an important goal, as it must be. We should not—we need not—destroy the village in order to save it.

Instead, the key test—the single critical factor—is whether the federal government is committed to financial support of Amtrak and intercity passenger rail service. I am here to reaffirm what Deputy Secretary Downey said yesterday, that the Clinton Administration is strongly committed to the future of intercity passenger rail and a stable source of funding for Amtrak.

In 1994, the Department of Transportation and Amtrak's Board of Directors committed to the goal of eliminating Amtrak's dependence on Federal operating subsidies, while improving service and preserving a national system. The Administration has led with substantial capital requests for Amtrak, and over the past four years the total Federal capital investment in Amtrak has exceeded that for the previous decade combined.

Yet, as we recognize, Amtrak faces difficult financial circumstances right now. Part of the reason for that, I would like to point out, is that Amtrak's transition off of Federal operating subsidies has not been adequately funded—in FY 1996 Congress appropriated \$115 million less than the President requested and that shortfall has cascaded into the present.

But rather than assign responsibility for the past, the key question is where do we go from here—how do we save the village?

The answer is with adequate federal financial resources. The Administration's reauthorization proposal for Amtrak just submitted to Congress, backed up by the President's budget request, provides for approximately \$4.9 billion for Amtrak over the next six years. That is a significant commitment.

Now, everyone has talked about the ½ cent, and indeed it is an attractive concept. But please focus on this chart, which compares the Roth ½ cent proposal to the Administration's commitment.

This is not to denigrate the ½ cent concept, but rather to illustrate how significant the Administration's commitment really is.

Let me be clear—there should be no expectation that Amtrak can be viable with a one-time, five year infusion of capital. Senator Hutchison mentioned a “finite” five year capital commitment. The capital commitment must be stable and ongoing, and we in the Department believe that this is an appropriate and vital continuing federal role. Now in addition to the need for funding, we have heard much about the need for reform—radical reform even—destroying the village. The Administration proposes appropriate and necessary reform, including providing Amtrak with the ability to make route and service decisions in an efficient manner, and having the ability to negotiate fair and equitable cost sharing arrangements with commuter operators in the Northeast Corridor.

But it is not necessary to engage in a divisive debate over liability reform or eliminating statutory labor protection. Why? Because even without any statutory reform at all, Amtrak has cut its reliance on the federal operating subsidy from nearly \$400 million almost in half to \$222 million in just two years. Labor protection payments have little to do with Amtrak's operating deficit—in 1995 Amtrak paid out \$1 million in labor protection payments. In 1996 the number was the same. The same goes with contracting out. So engaging in a divisive legislative battle over issues that are not meaningful in terms of Amtrak's bottom line is simply unnecessary, and we believe, unwise.

Instead, what we need to do is foster an environment in which all parties can contribute to Amtrak's success. We

believe that the goal of a zero operating subsidy is important, because it has already driven Amtrak to expand its entrepreneurial initiatives through the strategic business units. Despite a substantial cut in train-miles operated, ridership, yields and revenue are moving in the right direction.

States are stepping up to the plate too. State financial support for Amtrak service has doubled within a year. More states—12—are investing in intercity passenger rail because it makes sense.

Which brings me to the Administration's NEXTEA proposal. Rather than go into detail, let me just emphasize that our proposal of flexibility would enable states to invest in Amtrak and intercity passenger rail using STP funds, the NHS allocation, from CMAQ, from the State Infrastructure Banks, from the new Credit Enhancement Program—indeed would provide the greatest possible flexibility. And state participation is one of the keys that we heard about yesterday.

So in conclusion, it may be tempting for some to look at Amtrak's financial situation and conclude that fundamental reform is somehow necessary. It is not. What is needed is the necessary financial commitment, and that we have proposed. The Administration has committed nearly \$5 billion to Amtrak. And we have committed to the flexibility the states will need as an absolute cornerstone of our NEXTEA proposal.

The President is committed to Amtrak, and so is Secretary Slater. I know that the bridge that the President talks about can be a railroad bridge, because intercity passenger rail and Amtrak will be a critical part of our National Transportation System for the 21st Century.

RURAL PERSPECTIVE ON RAIL

*John Robert Smith
Mayor, City of Meridian, Mississippi*

Meridian was founded as a railroad community in the 1850s. The people of Meridian rebuilt the railroad in just 25 days after Sherman's march had destroyed it in 1864 because the rail line was the life blood of the community. Rail lines are still the life blood of smaller communities in rural America today.

With a population consisting largely of those on fixed incomes, low incomes, the elderly, and single parents, rural areas depend on rail passenger service as an affordable option. Air transportation is not available in some places and is too expensive where it does exist, and poor people do not always own reliable vehicles for long distance trips.

When Amtrak cut service on the Crescent line, each small city alone would not have had enough clout to make its voice heard. So representatives of many small cities between New Orleans and Atlanta banded together to form the Crescent Corridor Coalition, which undertook the following actions:

- Testified before Congress on the need for a national rail passenger system;
- Joined forces with the Northeast Corridor Initiative, underscoring the mutual dependency for rail service in both urban and rural areas; and
- Worked with Amtrak to market travel packages more aggressively to make each line reflect the culture and interests of the people in that market.

The result was an increase in ridership and revenues along the Crescent route.

Local community involvement is critical to the success of specific projects that support intercity rail passenger services, such as upgrading and restoring train stations that are traditionally gateways to the community. For example, Meridian's own \$7-million station and intermodal center project has already begun to generate economic benefits to the community before it has even opened. Local involvement in eliminating grade crossings can generate both a short-term benefit to improve the efficiency of railroad operations and the long-term benefit of increasing the speed of operations. Train travel can also be packaged and promoted along with local and regional events, such as sports, festivals, and exhibitions, by featuring regional food and attractions.

We have come a long way since Bob Dole announced that Congress would cut "everything from Amtrak to zoological gardens" for several reasons. First, we have not allowed ourselves to be splintered into rural vs. urban factions. We have been consistent in support for a truly national rail passenger service. Finally, we have been unified in seeking the capital funding that Amtrak needs, whether from the half-cent gas tax or some other form.

In conclusion, the needs of rural residents must continue to be stressed. For these people, eliminating one of their few travel options is unacceptable. We need to continue to build and maintain coalitions representing the broad spectrum of constituencies. Finally, we must make a concerted effort to involve more communities in supporting passenger rail. Of the 540 Amtrak stations in the country, most are in small cities—the heart of America.

AMTRAK'S PERSPECTIVE

Thomas M. Downs
National Railroad Passenger Corporation

After listening to yesterday's presentations, I changed most of my remarks. I want to address what I think is fundamental about this debate.

Why does this issue about Amtrak look so complex? Why does the matrix look so cluttered with options? I believe it is at its very heart an inability to focus on some contradictory decisions about Amtrak and its place in the United States. There is an assumption some place in this that Amtrak is a mode of transportation. But think about that, in the 1880s there would not have been a single doubt about passenger rail service being the predominant mode of transportation in the United States.

As late as the 1900s to 1930s, there still would not have been a single doubt that the predominant mode of transportation in the United States was rail passenger service. Built America. Moved America. Moved America from the farm to the cities. It moved vast migrations, families west. Ensured connectivity. It was a mode. Some place, it fell off the chart as a mode.

Transit. If you look at transit as a mode of transportation, which is generally accepted in the United States, it is diverse, it is big, it is little, it is small, it is urban, it is rural, it is bus, it is trolley, it is subway, it is commuter rail, and it is robust and it is growing. There is no doubt in the American public mind that transit is a mode of transportation, like highways, like aviation.

Amtrak shares a lot of those characteristics. It is as robust in its kinds of service, but that is perceived to be somehow a weakness rather than a strength. It is small, urban and rural, as eloquently pointed out by John Robert Smith. It is point-to-point city connections in places that do not think about having other access, like Minot, North Dakota to Havre, Montana.

It is high speed rail development coming to a Northeast Corridor city near you soon. It is medium distance, a rail hub, in markets like L.A.—San Diego, Chicago—St. Louis, Milwaukee—Chicago, Seattle—Portland. It is intermodal connections with intercity bus. It is a complex interrelationship potentially with air, as well as bus, in places like Newark Airport or other airports that are experiencing land side congestion.

Those are all characteristics of a mode of transportation, but the most predominant characteristic of this service as a mode of transportation is the intensity of the public debate. You do not have a public debate over,

say, United Parcel Service. Or, Burlington Northern. You do have an intense public debate over a mode of transportation.

I was meeting with a senator recently and he said, "I just cannot do anything with you all. Your political support is too strong." And I said that the last time I checked, this was a democracy, and a public debate was supposed to take place in the halls of the Congress about what I think is a mode of transportation.

A lack of focus on the fact that this is a mode of transportation does not bring any legitimacy to the public debate about the role of the mode of transportation. So it becomes kind of fuzzy—"it is not fair, you are generating political support, or people—you know, you have too many supporters in small urban and rural communities, or it is too important in the northeast." Those are all the characteristics of a mode of transportation.

The second characteristic, or the second fundamental misunderstanding, or as Daniel Patrick Moynihan titled a book about citizen participation in the 1960s, *The Maximum Feasible Misunderstanding*. The other element of the maximum feasible misunderstanding here is, we are a business. There are some inherent contradictions between being a mode of transportation and being a business.

You have an administration, this White House, who said in a letter from the Office of Management and Budget, that if Amtrak did not agree to be subsidy-free in the year 2002, the president would not request any funding for Amtrak.

Okay. The Congress picks up that quickly and says, yes! You are a business. You are going to be out of the subsidy business by 2002, regardless of what that means to the national transportation system or the impacts in places like Meridian or Vermont, or Montana, or Philadelphia. Just get out of the subsidy business because you are creeping socialism, and a waste of the public's money.

It is hard to talk about a future for this company, when both a Democratic President and a Republican Congress are unanimous in their agreement that Amtrak has to be out of operating subsidy by 2002. I would like to argue, but I have lost the forums to argue in. So we have been defined in the public marketplace as a business. Let me run through some quick characteristics that make us more businesslike.

We make capital investments, not by congressional district, but by rate of return. We neither have the luxury nor the capability of making investments by congressional district to cement our support as demonstrated by the loss of all rail service in Nevada, Wyoming, most of Idaho, half

of Oregon, and the threat of the loss of all rail service in Arkansas and Texas.

A friend of mine who works in government here in Washington said, you either get a "Profile in Courage Award," or the award for the stupidest decision of the year. I said, what was that? And he said, well, two months before the general election, you announced that you were abandoning all rail service in Texas and Arkansas. We do not make capital investments the way a government agency does, we make them like a business.

We try and develop new markets and new marketplaces. We leave old markets where growth has been stunted or is declining. We have a 20% service reduction in the last three years; that is more than almost any other single reduction in service in the history of the corporation, and we did it without the intense congressional debates that took place in the 1977-1978 time frame, where the issue about reduction of Amtrak routes ripped the Congress and the White House apart.

We are well on our way to developing the first active, live, operating high speed rail business in the United States on the Northeast Corridor with the start of high speed service in 1999-2000. We are in the process of developing an aggressive mail and express business ancillary to passenger rail service as a helper, because we have to find other ways, in acting like a business, to develop the income.

If we are a business, we participate in that business environment. We have now, almost by stealth, a privatized rolling-stock railroad. Amtrak owns hardly any of its rolling stock anymore. Instead, the owners include KfW, the German Export Bank; ING, the Dutch Leasing Bank; and the Export Development Corporation of Canada (EDC). As a matter of fact, we are the largest debtor to the EDC and if we went under, so would the Export Development Corporation of Canada.

Well, if you do not own much track and you do not own any rolling stock, you are getting pretty privatized. We are the largest contract commuter operator in the United States, and we may be the largest contract commuter operator in the world. It is a business we bid on and have to continue to bid on in places like L.A. and Boston and the San Francisco region. We think we have done a great job on cost and safety, but it is a business. It is a \$200 and some odd million a year business for Amtrak.

We have doubled our state contracts, and those are contracts that we have to live with, in terms of specific performance, but they are contracts. That is a business relationship.

Merchandizing. We are in the merchandizing business, we are selling our logos, we are trying to get into relationships with air partners, cruise line partners. Those are all business arrangements. We are contracting out food service. We have entered into some aggressive energy

contracts with ENRON about power distribution and power consumption. IBM runs our information systems. Those are all business decisions.

What I would suggest is, that the Congress created something almost by accident without fully understanding the import of it, and that we have not realized the benefit of it for a variety of reasons and we have become enmeshed in an ideological struggle. Congress created a public benefit corporation.

We are a stock corporation, incorporated within the District of Columbia. The stock is held by the U.S. Secretary of Transportation as the principle shareholder, but we do not have GSA, we do not have civil service, we do not have all of the contract provisions. We can bid business ventures. We can quickly enter into agreements.

We had a negotiation this spring with a wholly-owned subsidiary of Phil Anshutz, who recently sold the Southern Pacific to the Union Pacific, about the use of fiber optic conduit in the Northeast Corridor. The first question he asked is, am I going to put up with a lot of bureaucratic entanglements in this process or can we make a deal? Can we make a deal in the next 45 days?

The deal was for \$45 million, up-front, cash, for access to some older conduit in the corridor. If we had been a government agency, we could not have acted that way. We did sign the deal. We executed it. The board approved it. The money is now in the bank. That is being a government-held stock company. The public benefit company issue was raised for me with some of the discussion about British Rail and the role that capital played there. What is the federal role related to investment of capital in a public benefit corporation? Is it for infrastructure, is it for plant, is it for expansion? Is it to reduce subsidy?

I think there is a huge number of lessons to be learned about our future in looking critically at the British Rail experience, and almost none of that has been done.

As a public benefit corporation, it is easier for states in this kind of quasi-public environment to contract with us for service. It is also easier, if we get funding flexibility out of whatever comes in the ISTEA reauthorization, to have partnerships with states or regions as a public benefit corporation, not as a business.

We have as a public benefit corporation incremental right of access to freight railroad property, private property. A unique experiment, I think, in the world, and it is not fully understood what that has done to minimize costs for passenger rail service and getting all of those other social gains: environmental, growth, density, economic development, connectivity, rural access. It is unique in this system and without the public benefit corporation role, created by Congress, we could not get incremental right of access to that track system, 22,000 miles of it. We pay \$100

million a year for it. One railroad, the Burlington Northern Santa Fe, right now is spending about \$1.2 billion a year on track and structure upgrades, and they plan on doing that for the next five or six years. That is the effectiveness and efficiency of the private marketplace with privately owned infrastructure on the track side.

I think the benefit to the railroads about having us there, for instance, is that it helps diffuse, in part, the pressure for open access. If you think about railroad property, it is the same as an electric utilities property. Deregulation means open access for electric power distribution networks, privately owned.

The same conditions can be imposed on railroads about open access. Having passengers on freight railroads is a form of public access, literally, and it helps better define what the public role is and the private role is. That relationship would not be there if we were simply a business.

If we were a business, would we still be tax-exempt on property tax and sales tax? Consumption taxes? I think the polarized debate obscures some fundamentals about what has happened over the last 25 years here. This environment about Amtrak is full of ideological vehemence left and right. On one side, the attack on privatizing it completely, single-mindedness; on the other, single-minded expansion about the public benefit side of Amtrak.

Without the unique ability to have some data to inform this debate, we go from re-authorization to re-authorization, assumption to assumption, "we will give you some capital, in five years it goes away. Then you will have to make your full cost of capital." This railroad will never make its full cost of capital. Very few railroads in the freight business make their full cost of capital. This one will never and can never. I think the same will be shown by any passenger railroad in the United States.

This public benefit corporation structure reduced the operating subsidy for Amtrak, a rail passenger service, from \$1.2 billion a year to \$200 million a year. It streamlined services. It renewed equipment. It has, I think, helped revitalize interest in rail passenger service in the United States.

What are the comparative outcomes around the rest of the world? Our operating ratio for this railroad consistently is far more impressive than our international counterparts. I have seen figures of 20% operating ratio, 30% operating ratios on rail passenger services outside the United States. In FY96 we produced \$1.5 billion in revenues, giving Amtrak a 67% operating ratio. Should we be, in effect, looking at whether or not this model has produced a lot of success to date, looked at what the pluses and minuses were over this 25-year period, and how the gains were made, where they were not made, rather than trying to celebrate what is—and the way GAO and the

Congress is characterizing this now is—the imminent bankruptcy and failure of Amtrak.

It is because it is framed only as a business, it is failing as a business. My assumption here is that defining it as a business preordains its failure. The policy debate should center on facts, it is too emotionally loaded, it is not fact-loaded. States invest for a reason. Mail and express is a natural market for us, but it is running into even marketplace opposition with railroads. Be a business, except do not be a business. High speed. The doubt about whether or not the capital will actually return the investment.

I meet twice a year with Terry Ivany who is the President and CEO of Via Railroad in Canada. Scary how many of our problems are exactly alike; even the timing, the sequencing of the issues.

There is something in the economic marketplace forces, at least in North America, that is almost exactly identical in Canada and the U.S., so it is not unique to our relationship with Congress. It is not unique to the American economy. There is something here that has a lot of similarities. What are they? Why are those forces the same in Canada and the United States? I haven't got a clue. Nobody else does.

In Mexico, they look to the U.S. model on freight, a lot of the technical assistance that countries around the world are getting is coming from American freight railroads because they are successful. The first thing that the freights say is, kill off all of the rail passenger services as quickly as you can and get into the freight businesses because it is where you make money.

Without looking at the experience in the United States about what happened when you pushed passengers off of trains, you build a tremendous force for building highways. Pretty soon the highways fill up with doubles and triples, trucks eat the core freight business to death. Without looking at the American experience here, we are selling our model overseas and I think it is a lack, it is again, a fundamental lack of research about what has happened with Amtrak.

Why can't we look back on our positive experience? Why can't we look back on \$18 billion worth of national investment in intercity rail passenger service? I think it is again, if you are a business, there is not any research about business. If you are a public benefit corporation, and a mode of transportation, then there is a research agenda. There has not been one, I am stunned, after having worked in both the Federal Transit Administration and the Federal Highway Administration, about a lack of a research agenda. We are here at Transportation Research Board. What is it that has kept us from being a subject of hard policy research, hard economic analysis, hard looks at the resources? I believe it is because we are trapped in this issue

about being a business. And you do not do transportation research on a single business.

I look backwards and I see a National Cooperative Highway Research Program. I look at a \$125 million strategic highway research program. I look at a fully funded transit research program and I do not see a single thing that looks like a robust research program that looks at our role as a mode in the American transportation system. This is TRB, and I want to ask a couple of quick questions.

Why isn't there any research? Why aren't we compared to the rest of the world in terms of outcome, government role, business relationships? How did our progress occur? What type of mode is this? What is our rural role? What is real high speed economics and how do they work out, incremental versus giant leap? What is the business role? Mail and express and other businesses. What is the state role? What are the commuter operators' roles? Intercity bus? Regional rail systems with commuters? Air rail, land cruise, incremental cost to access impact, and the unique impact of this lesson on the rest of the world?

All of those are legitimate questions. My challenge would be, to the Federal Railroad Administration, to the Office of the Secretary, to our modal partners in the

railroad industry, to states, is to help in this process of defining some real facts about this business, not the emotion, not the I think, not the I feel, not the I want. But what are the facts here?

I have always had a saying about that, the facts won't set you free, but they sometimes help. Amtrak cannot wait. We know the survival of this mode of transportation is at risk now. The nightmare that pursues all of us, I think, is that another generation could easily look back and say, why did those dummies let it go? Didn't they know that you could not ever get it back? Didn't they see another generation would want and need this tool in national transportation? Didn't they know it was a mode of transportation?

If you are judged by another generation's reactions about your outcomes, it gives you a higher standard than simply survival, and it gets all the way back to the fundamental question; is it a mode of transportation? Is it a business? Or is it a public benefit corporation that is a mix of both, that is not illegitimate, and may have been, by accident, a powerful model, but nobody can prove it, nobody is addressing it, and at heart, it is a failure of rational research, and it has to be addressed.

CONFERENCE SUMMARY, RESEARCH ISSUES, AND CONCLUSIONS

Robert E. Paaswell
City College of New York

CONFERENCE SUMMARY

The National Railroad Passenger Corporation (Amtrak), the U.S. passenger rail system, has had a critical need for funding since it was created in 1971. At a time (1997) when the federal role in support of transportation infrastructure is being debated at the national level, Amtrak must provide the rationale for sustained operating and capital support. Such rationale can be determined when several critical questions have been addressed. These questions were raised by a number of participants, starting with defining remarks by Tom Downs, CEO of Amtrak, and reemphasized by Governor Jim Florio. These questions included the following:

- What is meant by passenger rail in the United States?
- What is the role of passenger rail in the United States? Who is it meant to serve?
- Is Amtrak, as structured, the right model of operations?
- Where does intercity passenger rail fit in an intermodal transportation system?
- Who is responsible for the costs of a system?
- How can we formulate and measure results of an intercity rail policy? Why, in fact, do we not have such a policy today?

Passenger rail has always played an important part in U.S. transportation. However, arguably, the enormous investment in highways, together with the growth of the aviation industry, has reduced the role of intercity passenger rail since 1950. Rail passenger service not only became less attractive to the users than its competitors but also became burdensome to its primary operators, the freight railroads. Federal intervention occurred in 1971 to relieve the freight railroads of the burden and prevent bankruptcies and to stave off the total dissolution of passenger rail. That intervention was the creation of Amtrak, but Congress created Amtrak with conflicting or ambiguous objectives that have resulted in the critical budget needs of today. Although created to be responsible as a corporate-type business, Amtrak has seen Congress act as an ad hoc board of directors, through the annual subsidy process and the regulations or constraints that Congress applies with the subsidies. Among the conflicting

objectives created by the Amtrak legislation are the following:

- Amtrak would go from needing an operating subsidy to showing a profit in a few years after creation. In fact, it has needed a subsidy every year since it has been established.
- Amtrak will serve as a national passenger network. This, of course implies that Amtrak will offer coast to coast connected service, not just serve a few corridors.
- Amtrak will continue a number of operating agreements, in particular labor agreements that existed at its creation.
- All of these constraints were made even more severe by the fact that Amtrak was created with no vision or strategic plan; instead there was confusion over whether this was to be a "for profit" or "public benefit" corporation. The problems have been exacerbated because there has been no long-term source of capital so necessary for planning, development, and modernization. Tom Downs pointed out that critics tend to look at Amtrak only as a *corporation*, which needs to make a profit, neglecting that Amtrak (passenger rail) is also a *mode of transportation* that has reasons for existence founded in transportation policy.

Passenger Rail Today

The most evident manifestation of the problem facing Amtrak today was noted in a report of the General Accounting Office. (See remarks by Phyllis F. Scheinberg.) Amtrak has never met its financial targets and continues to operate at a deficit. GAO notes that in its 26 years of existence, Amtrak has never escaped a need for subsidy. The corporation is running a deficit on working capital, and its debt will continue to increase; none of these are good signs for a business. GAO also notes that Amtrak suffers from conflicting mandates, unresolved labor issues, and no agreement on the role of passenger rail in the United States. Rather than an indictment of Amtrak, the GAO report underscores the costs to the federal government of operating passenger rail with no long-term plan.

Amtrak's financial crisis has come about at least in part because of congressional reduction of the operating subsidy at too rapid a rate, even as some positive things are happening. For example, Amtrak's operating grant requirement has headed steadily downward from \$578 million in FY1994 to a projected \$447 million in FY1997.

Amtrak has reorganized to provide better customer service, cut its staff by 10 percent, recapitalized its fleet, embarked on an ambitious program in the NEC to improve service and revenue through electrification and new high-speed trains, and, despite route reductions, has managed to increase passenger revenues.

Amtrak is viable in a number of markets. The strongest market is the Northeast Corridor (NEC), from Boston to Washington. Amtrak shares nearly 50 percent of the air/rail market between New York and Washington. Further, sixty percent of its annual 54-million passengers ride on commuter rail in crowded urban areas. There are other corridors that have demonstrated significant ridership growth, or where financial or operational innovations have been instituted under Amtrak's operation, usually in partnership with one or more states. These corridors include San Diego-Los Angeles, Los Angeles-Fresno-Sacramento-San Francisco, Detroit-Chicago-Milwaukee, St. Louis-Chicago, and the evolving Seattle-Portland route and extension to Vancouver, BC.

To better compete in these and other evolving corridors and to generate new markets, Amtrak is developing high-speed rail (HSR), and is looking to generate revenue through attracting mail services and high-value fast freight. This raises the questions of Amtrak's role: is it mobility? Is it serving corridors? Is it to serve rural areas? Is it to develop as a HSR carrier? Where does it lie on the line bounded by a pure for-profit business on one end, and a national social service on the other?

In responding to these questions, conferees had to address Amtrak as a part of an intermodal system including air and highways, and Amtrak (or passenger rail) as part of U.S. rail systems and its interaction with rail freight carriers. Amtrak was reviewed in terms of national transportation issues, and in terms of its own objectives and performance.

Issues

A number of issues that must be addressed to establish the role of intercity passenger rail were articulated by the conferees. These issues could be classified as follows: governmental and institutional; operations and markets; and costs and other policy issues. The context of the discussion is the definition of intercity passenger rail as a system, the models for operation of such a system, including Amtrak, and the basis for evaluating such a system.

Governmental and Institutional Issues

A primary issue is to define the role of government at every level in the provision of passenger rail. Since 1971 the

federal government has played the major role in the system, both as financier and regulator. The model used is the legislation creating and sustaining Amtrak. Although intended to be operating subsidy free four years after its creation, the formal and informal legislative framework has been a major contributor to Amtrak's operating deficits. With congressional mandates Amtrak cannot fully rationalize, but must sustain certain routes; Amtrak must maintain certain labor agreements; and Amtrak must remain in an uncomfortable relationship with freight rail.

U.S. Deputy Secretary of Transportation Mortimer Downey noted that Amtrak is an essential part of a national intermodal transportation system. As such, USDOT is committed to passenger rail and to the development and implementation of HSR. Noting that a continuing source of capital is necessary, Downey stated that the administration's proposal for surface transportation legislation (the National Economic Crossroads Efficiency Act or NEXTEA) would allow great flexibility for local areas to use funds for rail through enlarged program structures of the Surface Transportation Program, and the National Highway System Program. In addition, capital would become available through state infrastructure banks and credit enhancement programs. He stressed that states would have to play larger roles as partners in the development of Amtrak. Views expressed by congressional speakers, Senator Kay Bailey Hutchison and a representative of Senator William Roth, indicated support of Amtrak for both its role in regional mobility and its impact on relief of congestion. However, to reduce costs, they suggested that there be some reform in a number of areas, including labor agreements and liability. All noted the importance of the proposed half cent from the gasoline tax or its equivalent in funding that could be directed to Amtrak's capital needs.

A number of state initiatives illustrated such innovative partnerships. Washington state is taking the initiative to build strong service in a corridor that will eventually go from Vancouver, BC to Portland and Eugene, Oregon. Using a strong market approach, and a strong regional identity for the service, Washington, through staged investments, is moving toward HSR with quality equipment and service. Such service is already showing shifts from air and auto in congested corridors to rail. North Carolina is developing HSR as an economic development tool. Vermont has developed rail to serve both in state mobility and to serve its tourism markets, using ISTEA enhancement funds. Some states share responsibility for commuter rail, a rapidly growing market. New Jersey Transit, for example, operating in the NEC, must have partnerships with Amtrak, the Port Authority of New York/New Jersey, the state, and the Federal Transit Administration. John Robert Smith, the mayor of

Meridian, Mississippi, indicated the need to keep small urban and rural areas part of a national network. He noted that the stimulus to sustain good rail service led to the creation of a Crescent Corridor Coalition to work with Amtrak.

Operations and Markets

The discussion of government issues highlighted the importance of true partnerships: public/private and state/federal. Anne Stubbs, of the Coalition of Northeast Governors, using the NEC as an example, noted that the states were strong partners, meeting market needs of both intercity and commuter travel. However, she noted such corridor strength was linked to the fact that the NEC was also part of a regional network. Important operating standards, signals, communications, ticketing, and safety must be part of national standards, to meet improved service delivery and build consumer satisfaction. Rail is important in the overall eastern U.S. market, reducing congestion in a crowded I-95 corridor, and providing access to economically growing rural areas such as Vermont. The states can address market issues, through information, appropriate rolling stock, new stations, but need federal operating and capital assistance. Peter Stangl, of Bombardier represented private sector firms responsive to passenger rail needs and emphasized how a rolling stock manufacturer works with local and federal agencies. First, they work with states and Amtrak to provide the rolling stock appropriate to the markets. Next, they provide innovative financing and operating arrangements, such as long-term maintenance of rolling stock. He introduced the importance of risk, especially in capital financing, noting that risk influences costs and must be shared between the public and private sectors. The value added to public agencies for sharing risk will be improved regional economies.

Labor is another active and major partner. Sonny Hall, of the Transit Workers Union, gave compelling evidence of the contribution of labor to passenger rail. Passenger rail needs highly skilled, experienced, trained personnel to operate and to maintain a system that is becoming, technologically, increasingly complex. Amtrak must compete for skilled workers with freight railroads and commuter rail operators, both of which generally offer better wages and benefits, following Amtrak's prolonged period of austerity measures. Labor agreements were part of the original Amtrak structure. Some believe parts of the agreements, e.g., 6-year payout requirements, are nonproductive. Itzkoff, Florio, and Hall each stated that eliminating labor protection would not really provide substantial savings and suggested that too much emphasis on this issue could impede reaching agreement on long-term

help for Amtrak. However, as labor will remain a partner, it is important for labor and management to negotiate new initiatives that will address both the needs of the railway workers and Amtrak's continuing need to find economies in the operating budget.

The impact of operating practices is seen on the ability to generate new markets. In particular, operating unprofitable but desirable routes can be addressed by state subsidies, or for national routes, through federal subsidy. Both require, however, innovation in labor-management agreements to improve productivity and to reexamine labor practices.

Costs and Other Policy Issues

The fundamental issue of costs has been addressed above. Amtrak needs a long-term, predictable source of capital, relief from regulations, and operating arrangements where Amtrak is reimbursed for fully allocated costs of services it provides. When viewed as public investment, a proper articulation of passenger rail benefits, and external costs must be constructed. A number of speakers, including Gerard McCullough, David Burwell, Fred Kent, and Elmer Johnson, discussed the identification of rail benefits and important externalities, with special attention to quality of life, sustainability, and the environment. Rail has to be measured against the true costs of using motor vehicles and airlines. In fact, many had previously identified rail as a critical component of relieving costly congestion in crowded corridors, both on highways and at large air hubs. The use of rail has the potential to reduce air and noise pollution. In fact, by pricing according to true external costs of competing modes and the efficiencies of passenger rail, rail would gain even more in competition with motor vehicles and air travel.

Importantly, passenger rail was defined as being part of an intermodal system. Matthew Coogan suggested a more appropriate way of evaluating intermodal parts of a transportation system than by the traditional, mode-by-mode approach. In an intermodal context, intercity rail's importance can be evaluated from the view of the systemwide needs of the end user. For example, the French government's decision to make a significant investment to link high-speed rail (TGV) to Charles DeGaulle Airport outside of Paris was based on the recognition of the global transportation system and how rail could be used to expand the market shed for the "national" long-distance airport. In this and similar cases elsewhere in Europe, the goal of national investment in rail was to create intermodal services that would attract international travelers. Similarly, in the U.S., investments in Amtrak need to be viewed for their contributions to the national transportation system.

A complication to the provision of rail passenger service in the U.S. was seen in current relationships between Amtrak and freight railroads. Two views on this issue clearly emerged during the conference. One is that Amtrak has a precious asset—the right to operate over the freight railroads at incremental cost—that should not be lost in any future legislation. On the other side, the freight railroads believe that they are subsidizing Amtrak because incremental costs are less than their full opportunity costs. Increased freight traffic in recent years has made the original agreement much less attractive to the freight railroads. The freight railroads would oppose the transfer of access to their rail lines from Amtrak to other (state) operators, the assignment of any labor costs (e.g., retirement) waived by the federal government to them, and a requirement for them to contribute to any additional federal subsidy (e.g., half cent of gas tax) that might be provided to Amtrak. These and other issues of freight and passenger rail must be addressed in a new rail plan.

New Models for Providing Rail Passenger Service

How can these complex issues be addressed? A number of models now exist to address the issues now facing Amtrak.

- Amtrak is the existing model. Its problems have been defined above. It is a single operator, subsidized by both federal and state governments to provide national, regional, and commuter service.

- European models are providing innovations in private and public cooperation. For example, the British approach to rail service is to separate infrastructure and operations. An infrastructure company will provide well-maintained trackage at a cost to private operating companies. Companies bid on the service to the government and have the right to operate for a negotiated period. It is believed that competition will reduce the levels of government subsidy needed to support passenger rail. Although leading to some service innovations, privatization has also led to more system rationalization, but no reduction of subsidy was possible in the first years of operation. In addition, large legal and administrative costs were incurred as a result of the franchise process. The introduction of HSR has led to new market gains, but was planned before privatization. Questions about the applicability of privatization to the U.S. include whether the size of markets, especially outside the NEC, are sufficient, and how franchises could be controlled.

- State and regional models. State and regional models have been developed to complement Amtrak and take advantage of its operating structure and investments. State models rely on the Amtrak national network, and local subsidies, but are sensitive to local markets by

tailoring rolling stock, scheduling, station locations, and operations to serve their needs.

In addressing appropriate models, government and its partners at all levels must define the objectives of passenger rail. Is it a business? Is it mobility? Is it an integral part of a national intermodal system? To answer those questions, objectives must be set defining what is wanted. Alternative models can be structured, evaluated, and cost/benefit analyses carried out. These analyses must include the nature of institutional changes that must be made to provide for success of such a system.

Dunn and Perl, in their paper on “Institutional Challenges”, addressed the issue of models through the development of a matrix examining two types of partnerships. These are public/private and federal/state. The five models they suggest are as follows:

- Partnership. Federal funding will be used to leverage joint ventures with other partners (ranging from states to private entrepreneurs in mail and express, station redevelopment, or “cruise trains”).

- Positive Privatization. This process might resemble the British experience, or be an analog to the U.S. experience with Conrail. Positive privatization requires up-front capital investment to make the rail assets attractive to private investors and administrative costs for a franchise or regulatory agency, e.g. U.S.R.A. in the case of Conrail.

- Picking up the Pieces. AMTRAK would devolve to corridors and states, gaining state markets, losing a national system.

- For-Profit High-Speed Rail. As in “State and regional models”, locally developed high-speed systems, operated on a contract basis (from design through operation).

- Liquidation. Amtrak’s assets would be sold.

Liquidation, as evidenced by many of the participants, and particularly those from Congress, is probably not an option. Although rail passenger service enjoys considerable political support, an Amtrak bankruptcy is still possible despite good intentions, and the result, including possible liquidation, is unpredictable. Dunn and Perl pointed out that the current financial crisis, coupled with the need to reauthorize ISTEA, provides a unique opportunity for a long-term financial solution.

RESEARCH ISSUES

During the course of this conference, questions about the future of Amtrak have been raised as well as about ways in which benefits and costs of intercity passenger rail might be defined and measured.

Is intercity passenger rail a necessary component of an effective and efficient multimodal transportation system? This central question is the subject of both policy analysis and economic research. Many of the elements of a research agenda for intercity passenger rail have been discussed, and a possible structure for such an agenda follows.

Defining Intercity Passenger Rail as a Mode

- What data related to intercity passenger rail are needed to allow comparisons with other modes and with operations in other countries?
- What metrics need to be developed to allow such comparisons to be made?

Defining the Role of Intercity Passenger Rail

- Is the role provision of for-profit transportation services or public benefits?
- Is the role best served as a national system?
- What is the role in densely populated corridors? rural areas?

Measuring Externalities

- How can economic, social, and environmental benefits and costs be measured and compared with other modes?
- How can benefits and costs be measured for different types of service (e.g., corridors vs. long distance)?
- What is the complementary relationship of intercity rail with other modes?
- What are measures of performance that can be used to examine rail investments?

Delivery of Intercity Passenger Rail Service: Institutional Questions

- Where does responsibility lie?
- What are the roles of various levels of government: federal, state, regional, local?
- What are the barriers, such as existing legislation, regulation and culture, to changing the current roles of those responsible?

Delivery of Intercity Passenger Rail Service: Role of Partnerships

- What is the role of the private sector to provide entrepreneurship needed to meet or generate market demands?

- What labor-management partnership initiatives are possible and necessary for the successful operations of passenger rail?

- What is the role of intermodal partners, both public and private?

Management and Models for Operations

- Should the existing Amtrak model be maintained?
- Can existing models of European operations and management be translated to the United States? What are the costs and institutional barriers associated with such translation?
- The strengths of state and regional models have complemented the national system: can they be used as models for additional public and private support for portions of the system?

Funding

- For each of the models of operations considered by Dunn and Perl, what are potential innovative funding programs for both capital investment and operating costs? (In particular, funding models that extend from 5 to 20 years.)
- If intercity rail passenger service is viewed as a public benefit, what are the appropriate funding sources to support it?

CONCLUSIONS

Passenger rail has always played an important part in United States transportation. However, there needs to be a vision of what passenger rail in the United States can and should be. A continuing source of predictable capital funding is a fundamental issue, as is the operating and regulatory environment in which passenger rail will exist. The importance of rail is seen not only in the congested NEC but in developing corridors in many other regions of the country. In addition, HSR, using market data from Europe, should generate new riders and help to relieve pressures on other modes. Unlike Europe, rail still has only a small portion of the national passenger market. Federal policy supports passenger rail as an essential part of the national intermodal transportation system. USDOT's stated commitment to passenger rail is an important basis for rail to fulfill its vision and realize its potential as part of that system.

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