

ANALYSIS OF COST SAVINGS ON AMTRAK'S LONG-DISTANCE SERVICES

Report Number: CR-2005-068

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U.S. Department of
Transportation

Office of the Secretary
of Transportation
Office of Inspector General

Memorandum

Subject: ACTION: Report on
Analysis of Cost Savings on
Amtrak's Long-Distance Services
Report No. CR-2005-068

Date: July 22, 2005

From: Kenneth M. Mead
Inspector General

Reply to
Attn. of: JA-50

To: The Secretary
Deputy Secretary
General Counsel
National Railroad Passenger Corporation Board of Directors

Long-distance intercity passenger rail service in the United States has sparked widespread controversy, in large part because of its heavy subsidies. In fact, Congress directed Amtrak to be operationally self-sufficient by 2002 and currently there is no authorization for the National Railroad Passenger Corporation (Amtrak). Meanwhile the subsidy has grown. In Fiscal Year (FY) 2004, long-distance trains (those with routes over 500 miles) cumulatively incurred operating losses of more than \$600 million.¹ There is no sign that this trend of large losses from long-distance service can be reversed by engaging in business as usual.

Although one approach to reducing the losses posted by Amtrak is to simply eliminate long-distance service, this report considers a less drastic measure, namely to selectively reduce costs while continuing to provide basic long-distance service to meet the mobility needs of rural communities that may not have access to other transportation alternatives.

Many of those who advocate retaining Amtrak's long-distance routes argue that Amtrak service along those routes is needed to meet basic transportation needs of communities that are far from major metropolitan areas. The long-distance trains serve 41 states and are the only intercity passenger rail service in 23 of those states. This report presents the results of our ongoing analysis of options for

¹ Reported by Amtrak in its Route Profitability System. This figure includes losses from Mail & Express services on long-distance trains, as well as from the Three Rivers route, but excludes all interest and depreciation.

reducing operating losses and capital costs of Amtrak's long-distance operations. The issue of whether all long-distance routes and frequencies should be retained, and the possibility of achieving further savings by cutting routes or frequencies at some time in the future, is not part of this report. *Instead, we focused our analysis on ways to cut long-distance route losses while retaining Amtrak's long-distance passenger rail service on all currently served routes at the existing frequencies.* In our opinion, the chief argument for retaining Amtrak's long-distance service is that the service is needed to meet the basic mobility needs of the American public, not to provide amenities that cannot be supported without adding to the operating losses and, consequently, requiring more federal subsidies. A more detailed discussion of our scope and methodology is included in Exhibit A.

We provided Amtrak's Board of Directors with a draft of this report. In response, the Board agreed that its long-distance and food service operations represent two of its most urgent financial challenges. The Board acknowledged that long-distance passenger rail service cannot remain viable without significant reductions in operating expenses and indicated that Amtrak will be launching a number of pilot projects to address the long-distance operating cost issues that our analysis identified. The key to achieving cost reductions will be Amtrak's commitment to follow through with these pilot projects, and for this reason we have included milestones for accomplishing this in our recommendations. The full text of the Board's response appears in the Appendix.

RESULTS IN BRIEF

Overall, the Federal subsidy for Amtrak's long-distance train service is an estimated \$484 million annually on an operating basis.² Total annual operating losses (excluding Mail & Express) on the long-distance routes range from about \$12.3 million for the Cardinal to about \$87 million on the Silver Service. Our analysis identified potential annual operating savings of between \$75 million and \$158 million, and an additional \$79 million in planned annual capital expenditures that could be avoided. Over 5 years, this amounts to between about \$375 million and \$790 million in operating savings and \$395 million in avoidable planned capital expenditures.

We found that the per-passenger Federal subsidy for sleeper class service—also called first-class service—on long-distance trains is markedly higher than the per passenger subsidy in coach.³ (See Table 1⁴ on the following page, and note that

² This figure excludes losses from Mail & Express services as well as from the Three Rivers route.

³ It is important not to confuse the service associated with the sleeper cars with Amtrak's other uses of the term first class, such as the upgraded seating areas on the Acela.

⁴ Revenues per passenger fall well below average posted fares on Amtrak. Not only does Amtrak offer a variety of standard discounts (e.g. for seniors, American Automobile Association members, and National Association of Rail

Federal subsidies must cover net losses.) There are two classes of passengers on Amtrak's long-distance trains: coach and sleeper class. Sleeper class differs from coach in that it provides a sleeping room (many with a private toilet and shower) complete with turndown service, movie presentations and other entertainment (also available to coach passengers), and prepaid meals in the train's dining car. Overnight coach passengers sleep in their seats. Coach passengers may use the dining car on a pay-as-you-go basis (with the exception of the Auto Train, where coach tickets include meals in the dining car), but coach passengers who buy food on long-distance trains make most of their expenditures in the lounge car, which has less expensive fare.

On an operating basis alone—that is excluding depreciation and interest—sleeper class service on the Sunset Limited loses as much as \$366 per passenger versus \$286 for each coach passenger. The spread is even greater on the Crescent, where the loss per passenger for sleeper service is \$330, versus \$114 for coach.

On a fully allocated⁵ cost basis—that is including depreciation and interest—sleeper class service on the Sunset Limited loses as much as \$627 per passenger versus \$416 for each coach passenger (see Table 2 on following page). On the Crescent, the loss per passenger for sleeper service is \$552 on a fully allocated cost basis, versus \$194 for each coach passenger. *This means that passengers receiving sleeper class services on Amtrak's long-distance trains are subsidized with Federal monies ranging from \$269 on the Auto Train to \$627 on the Sunset Limited.*

Because of the disparity between the level of subsidies for coach class service and the level of subsidies for sleeper class service, and because generally

| Route | Coach Class | | | Sleeper Class | | |
|----------------------------|-------------|------|-------|---------------|------|-------|
| | Rev. | Cost | Net | Rev. | Cost | Net |
| Sunset Limited | 88 | 374 | (286) | 261 | 627 | (366) |
| Crescent | 79 | 193 | (114) | 188 | 518 | (330) |
| Southwest Chief | 82 | 280 | (198) | 298 | 605 | (307) |
| Silver Service | 74 | 173 | (99) | 170 | 414 | (244) |
| Cardinal | 47 | 176 | (129) | 147 | 385 | (238) |
| California Zephyr | 68 | 208 | (140) | 274 | 509 | (234) |
| Lake Shore Ltd. | 56 | 163 | (106) | 197 | 422 | (225) |
| City of New Orleans | 57 | 145 | (88) | 128 | 345 | (217) |
| Capitol Limited | 49 | 161 | (112) | 155 | 363 | (208) |
| Texas Eagle | 57 | 168 | (111) | 184 | 383 | (198) |
| Coast Starlight | 56 | 137 | (81) | 187 | 344 | (157) |
| Empire Builder | 70 | 163 | (94) | 244 | 398 | (154) |
| Auto Train | 197 | 223 | (26) | 292 | 415 | (124) |

Source: OIG Analysis of FY 2004 Amtrak Route Profitability System (RPS) data. Excludes revenue and costs of Mail & Express service, discontinued in 2005.

Passengers members), but it also routinely offers a selection of weekly specials discounting 70 percent to 80 percent of the ticket price.

⁵ Amtrak has used another definition of "fully allocated costs." Under that definition, fully allocated costs are the result of allocating all shared costs, such as maintenance of way, or overhead costs, across individual routes. In this report, only the costs per passenger are fully allocated in that sense. Our estimates of savings are based on marginal costs to the extent possible.

only about 16 percent of Amtrak's long-distance passengers use the sleeper class service, we identified sleeper class as an opportunity for cost-cutting. While sleeper class generates greater revenue per passenger than coach class, the costs associated with that revenue far exceed the revenue itself. Our analysis eliminates the revenues and expenses associated with sleeper cars and food service. Overall, our analysis shows that eliminating sleeper cars, dining cars (sleeper class fares include meals in the dining car), and other amenities (onboard entertainment, lounge seating, checked baggage service, and food and beverage service) on Amtrak's long-distance routes could save between \$75 million and \$158 million per year in operating costs, and avoid an additional \$79 million in planned annual capital expenditures. This would result in between about \$375 million and \$790 million in operating savings and \$395 million in avoidable planned capital expenditures over 5 years. *The reason that such savings are possible is that the cost of the sleeper class and other amenities is so expensive that the revenues pale in comparison.*

While we recognize that passengers need access to some type of food service on long-distance trains, Amtrak must find ways to provide food service in a much more efficient manner to eliminate the need for Federal subsidies for food services. Amtrak's Inspector General has found numerous problems with Amtrak's management of its food service. Options for food service that could be tested on several long-distance routes include outsourcing, increasing food prices, having passengers obtain meals in stations during regular stops, distributing boxed meals that have been prepared off the train, and selling packaged food from carts on the trains. Amtrak should closely examine the true costs of providing all of its other services, and implement additional measures to cut its operating losses. This type of comprehensive analysis is something that Amtrak should have accomplished on its own initiative.

We are recommending that the Amtrak Board of Directors require a thorough analysis of costs on long-distance routes and the initiation of pilot projects on

**Table 2. Coach Class Versus Sleeper Class:
Loss Per Passenger on a Fully Allocated Basis**

| Route | Coach Class | | | Sleeper Class | | |
|----------------------------|-------------|------|-------|---------------|------|-------|
| | Rev. | Cost | Net | Rev. | Cost | Net |
| Sunset Limited | 88 | 504 | (416) | 261 | 888 | (627) |
| Crescent | 79 | 272 | (194) | 188 | 741 | (552) |
| Southwest Chief | 82 | 361 | (279) | 298 | 782 | (484) |
| Lake Shore Ltd. | 56 | 224 | (168) | 197 | 636 | (439) |
| Silver Service | 74 | 249 | (175) | 170 | 590 | (420) |
| California Zephyr | 68 | 269 | (202) | 274 | 690 | (416) |
| Cardinal | 47 | 242 | (195) | 147 | 527 | (379) |
| Capitol Limited | 49 | 214 | (165) | 155 | 507 | (352) |
| Texas Eagle | 57 | 215 | (159) | 184 | 505 | (321) |
| City of New Orleans | 57 | 189 | (132) | 128 | 439 | (311) |
| Empire Builder | 70 | 209 | (139) | 244 | 534 | (290) |
| Coast Starlight | 56 | 182 | (126) | 187 | 471 | (283) |
| Auto Train | 197 | 314 | (117) | 292 | 560 | (269) |

Source: OIG Analysis of FY 2004 Amtrak RPS data. Excludes revenue and costs of Mail & Express service, discontinued in 2005.

select routes to test the effect of eliminating sleeper class and its associated amenities. Amtrak should test and calibrate various alternatives in its pilot projects, rather than use a one-size-fits-all approach. In constructing different pilot projects, it is important to avoid unintended impacts on revenues. For example, elimination of sleeper service without eliminating dining cars is unlikely to provide significant savings, since sleeper class passengers account for more than half of dining car revenues. If sleeper cars were eliminated and dining cars remained, revenue attributed to the dining car would decrease significantly while costs associated with the dining car would not.

BACKGROUND

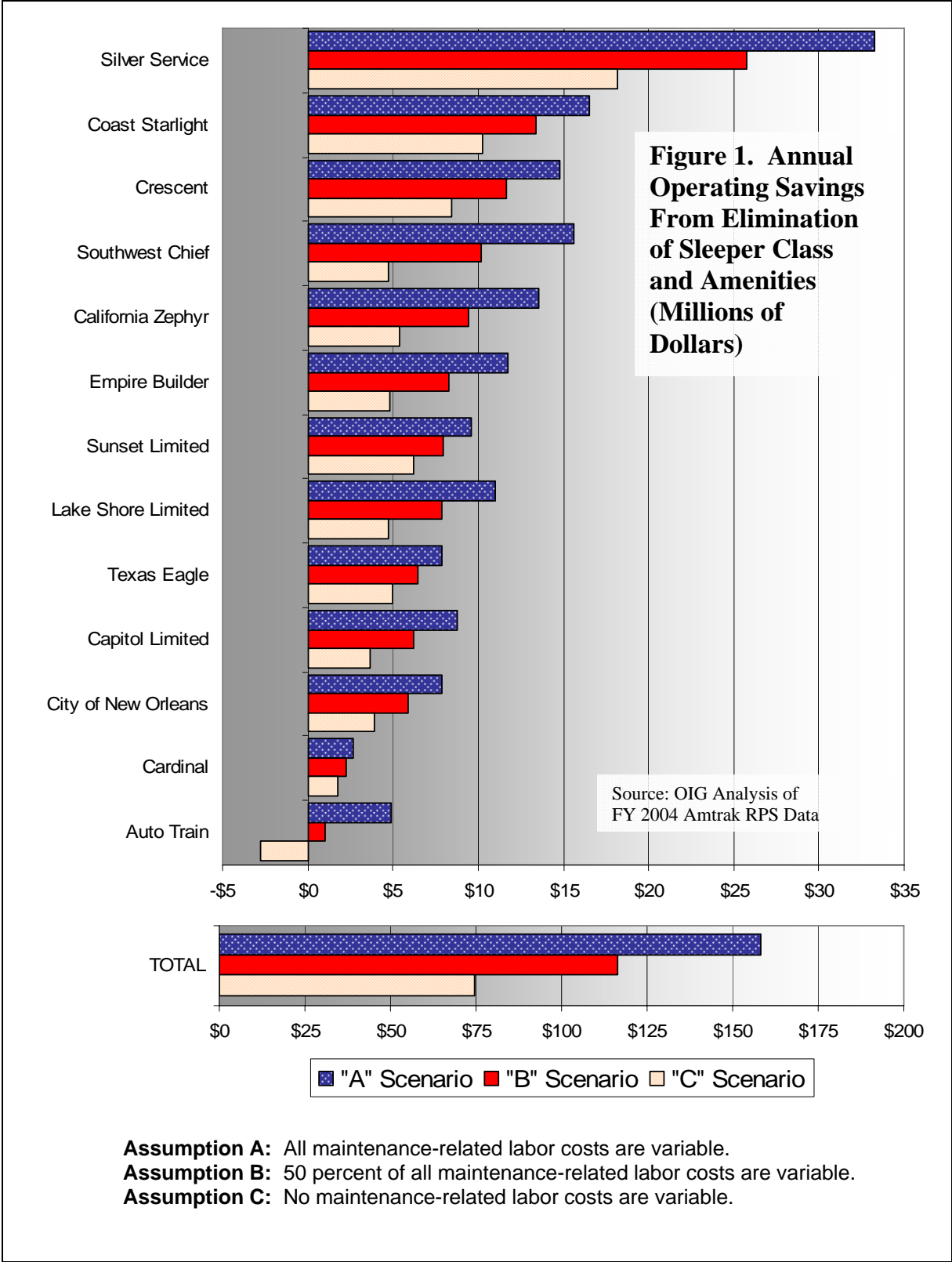
Since April 2003, our testimony before Congress and assessment reports have stated that the current model for intercity passenger rail is broken. Other than budget cuts or the threat of budget cuts, the current model provides few incentives for cost control or delivery of services in a cost-effective way. Service on long-distance routes is particularly problematic in that it is associated with the highest losses per passenger and is among the highest per passenger mile (see Exhibit B).

In FY 2004, long-distance trains carried about 15 percent of Amtrak's total intercity ridership. Only a small number of riders (14 percent on all long-distance routes, and 9 percent excluding the Auto Train) of Amtrak's long-distance trains take the routes end-to-end. Of the 3.9 million passengers who rode long-distance trains in FY 2004, only 527,000 rode the entire length of the route, and another 403,000 rode between city pairs also served by existing corridor service. Most of the remaining sleeper class and coach passengers combined rode 500 to 800 miles on average. In this analysis, we examined the net savings and corresponding reduction in Federal subsidies gained from eliminating sleeper service, food service, and other amenities that are the source of significant losses in long-distance service.

RESULTS

Eliminating long-distance service would not solve Amtrak's overall funding problems, but removing sleeper service, dining cars, and other amenities from these routes, while still maintaining basic coach service, could reduce net operating losses by about \$75 million to \$158 million per year, depending upon the range of assumptions about the flexibility of certain labor costs, of which we will say more later.⁶ (See Figure 1 on following page.)

⁶ Operating losses exclude any form of capital-related expenditures. This analysis was based on FY 2004 data from Amtrak's Route Profitability System (RPS). RPS is Amtrak's cost allocation system. It takes data from Amtrak's Financial Information System, a financial ledger, and allocates it across all of Amtrak's routes.



Removing sleeper cars, dining cars, and other amenity-related equipment from long-distance services would also yield an average reduction of about \$79 million in planned annual capital spending. Over 5 years, the potential Federal operating subsidy savings ranges from about \$375 million to \$790 million, in addition to \$395 million in avoidable planned capital expenditures.

Amtrak has 13 long-distance routes⁷ and 28 shorter, or “corridor” routes. None of the long-distance routes makes money on an operating cost basis. Losses on Amtrak’s long-distance routes range from \$68 to \$309 per passenger on an operating cost basis. Of the 14 routes with the greatest losses per passenger, 13 are long-distance routes. And of the 14 routes with the greatest loss per passenger mile, 9 are long-distance routes.

Table 3. Amtrak’s Long-Distance Route Operating Revenue, Costs, and Losses

| Route | Rev. | Cost | Net |
|----------------------------|---------|---------|-----------|
| Silver Service | 63.2 | 149.7 | (86.5) |
| Southwest Chief | 34.5 | 97.4 | (62.8) |
| California Zephyr | 34.2 | 86.5 | (52.3) |
| Empire Builder | 42.0 | 86.9 | (44.9) |
| Coast Starlight | 32.4 | 71.4 | (39.0) |
| Crescent | 23.7 | 59.9 | (36.2) |
| Lake Shore Ltd. | 21.0 | 55.2 | (34.2) |
| Sunset Limited | 12.5 | 41.9 | (29.4) |
| Texas Eagle | 17.2 | 45.6 | (28.4) |
| Capitol Limited | 12.7 | 36.5 | (23.8) |
| City of New Orleans | 12.8 | 33.2 | (20.4) |
| Auto Train | 47.2 | 60.8 | (13.6) |
| Cardinal | 4.9 | 17.1 | (12.3) |
| Total | \$358.4 | \$842.2 | (\$483.9) |

In millions of dollars. Source: OIG Analysis of FY 2004 Amtrak RPS data. Excludes Mail and Express and the Three Rivers route, which were discontinued.

| Table 4. Operating Revenue FY 1996 – FY 2004 | |
|---|--------|
| Route | Change |
| Sunset Limited | -34 % |
| Lake Shore Limited | -28 % |
| Capitol Limited | -24 % |
| Auto Train | -12 % |
| Silver Service | -3 % |
| Cardinal | -0.7 % |
| City of New Orleans | 2.4 % |
| Crescent | 5.5 % |
| Coast Starlight | 10 % |
| Southwest Chief | 13 % |
| Texas Eagle | 29 % |
| California Zephyr | 34 % |
| Empire Builder | 36 % |
| ALL ROUTES | 1.5 % |

Calculated in 2004 dollars. Excludes Mail & Express. Source: Amtrak RPS

Revenue growth alone will not cure Amtrak’s losses. Overall, on an operating basis, Amtrak’s expenses are more than double its revenues, and on some routes expenses are triple the revenues generated (see Table 3). *Given the magnitude of Amtrak’s long-distance service losses, revenue growth alone is not likely to ever be sufficient to cover the total costs of operations.* Across all long-distance routes, total revenue increased only about 1.5 percent from 1996 to 2004 in dollars adjusted for inflation.

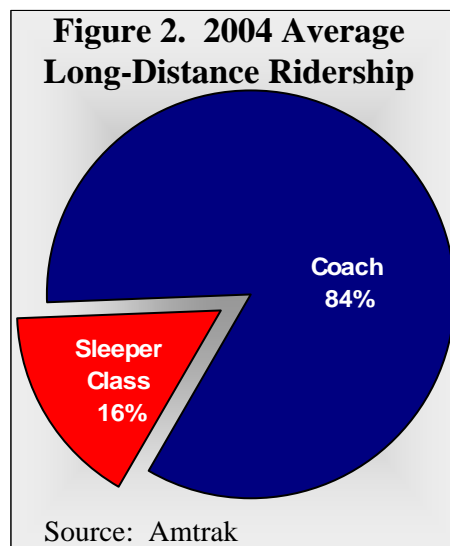
Five of Amtrak’s long-distance routes showed significant revenue growth between FY 1996 and FY 2004, while four others showed large revenue decreases (see Table 4). For example, the Empire Builder showed revenue growth of 36 percent and

⁷ One of the 13 long-distance routes, called the Silver Service, is made up of three different trains: The Silver Star (route length is 1,522 miles), the Silver Meteor (1,389 miles), and the Palmetto (829 miles). The Silver Star and Silver Meteor offer sleeping accommodations, but the Palmetto does not.

the California Zephyr showed revenue growth of 34 percent.⁸ Routes that showed the largest revenue declines included the Sunset Limited (34 percent) and the Lake Shore Limited (28 percent).

Majority of riders are coach. From the revenue changes, it is clear that Amtrak's efforts to increase revenue would not substantially reduce its operating losses. As a result, we focused our analysis on better understanding what types of passengers use the various services, distances traveled, and the cost structure of long-distance trains. Overall, the average share of sleeper class passengers across all routes is 16 percent (see Figure 2). *The substantial majority (84 percent) of passengers traveling on Amtrak's long-distance trains ride in coach seats.*

We also found that the average distance traveled is far less than the route length. For example, on the California Zephyr, 83 percent of the passengers rode coach, and they traveled an average distance of 713 miles, far less than the route length of 2,438. The other 17 percent of the passengers were in sleeper class, and they traveled an average distance of 1,452 miles, about 1,000 miles less than the total length of the route. The percentage of endpoint-to-endpoint riders on the California Zephyr was 4 percent. (See Exhibit C for more details.)



In examining the revenues and costs associated with providing service to the different categories of passengers, we found that sleeper class passengers account for a disproportionate share of revenues. However, as shown in Table 1, we also found that the high costs of providing sleeper services and their share of associated amenities means that sleeper class passengers account for a disproportionate share of the Federal subsidies necessary to cover costs on these routes.

The trains are designed more for sleeper class and high-end amenities. Existing long-distance train makeup is disproportionately geared to sleeper service and other higher-end amenities. Continuing with our example on the California Zephyr, there are two sleeper cars and half of a transition dorm, as well as specialized sleeper car personnel, dedicated solely to the 17 percent of riders who are in sleeper class. Compare this with three coaches dedicated solely to the 83 percent who are coach passengers. The train consist⁹ also includes a diner car,

⁸ Percentage change calculation is based on stating all costs in 2004 dollars, using the Gross Domestic Product deflator for transportation services.

⁹ A train consist is the mix of equipment, including the type, number, and order of the locomotives and cars in a particular train.

of which sleeper class passengers account for greater than one half of its revenue.¹⁰ Diner cars are staffed by one chef, one or two food preparation assistants, and three to five attendants. Half of the transition dorm car is used to house On-Board Services (OBS) personnel,¹¹ the majority of whom are associated with diner service. Thus, it is not surprising that the loss per sleeper class passenger substantially exceeded the loss per coach passenger.

OIG Analysis Assumptions. Because of the substantial disparity in losses on the different classes of services and amenities (sleeping accommodations, food and beverage service, entertainment, and checked baggage service), we assessed the effect on net losses that would result from concentrating on providing coach service, not sleeper class and amenities, for all long-distance trains. By providing just basic coach service, typical train sizes will decrease from two locomotives pulling 9 to as many as 13 cars to one locomotive pulling 3 to 5 coach cars.

This change in long-distance rail service requires adopting a shift in thinking about rail passenger service akin to the major airlines' moves to eliminate meals and other amenities in order to reduce their operating losses. The key to the shift in thinking is to begin looking for other options. We found that concentrating on basic passenger coach service, as opposed to travel with sleeper cars, dining, and other amenities, can result in savings in Federal operating subsidies of about \$375 million to \$790 million, and the avoidance of \$395 million in capital expenditures, over 5 years. Our calculations assume the following changes in service:

- **Sleeper cars** and all on-board services would be discontinued. This amounts to removal of all labor and supply costs associated with sleeper service, dining cars, lounge cars, commissaries, on-board entertainment, and coach attendants (this does not affect conductors, also called trainmen).
- **Baggage cars** and checked baggage service would be discontinued.¹² This service already is not available at many stations on long-distance routes (see Table 5). On roughly half of the long-distance routes,

| Route | % |
|----------------------------|------|
| Auto Train | 0 % |
| Cardinal | 0 % |
| Sunset Limited | 25 % |
| Southwest Chief | 26 % |
| City of New Orleans | 27 % |
| Texas Eagle | 30 % |
| California Zephyr | 37 % |
| Capitol Limited | 38 % |
| Empire Builder | 49 % |
| Crescent | 52 % |
| Lake Shore Limited | 58 % |
| Silver Service | 61 % |
| Coast Starlight | 69 % |
| Source: Amtrak Time Tables | |

¹⁰ Meals are included in the price of sleeper class accommodations.

¹¹ On-Board Services personnel include cooks, food preparation assistants, and attendants, but not conductors.

¹² Amtrak has 29 baggage-coach cars that originally had substantial baggage storage space in addition to coach seating. The baggage storage spaces were later converted to smoking lounges, but are being converted back to baggage space that can hold skis, bicycles, golf bags, and other large items. These cars may provide storage for oversized baggage that is now carried on baggage cars and cannot fit in the baggage spaces on regular coach cars.

checked baggage service is available at a third or fewer of the station stops. The number of stations at which a passenger can check or claim baggage ranges from 0 on the Cardinal to 69 percent on the Coast Starlight.

- **Dining cars** and any form of Federally subsidized food service would be eliminated. A dining car is a restaurant on wheels, with dining tables, wait staff, and a kitchen with cooking equipment, food storage, a chef, and food preparation assistants. On-board food service also incurs costs from Amtrak's commissaries around the nation that stock and distribute food, beverages, and related materials.
- **Lounge cars** would be eliminated because we have assumed that food service should be provided at no net cost to the taxpayer, or should have a positive effect on net cash flow. Lounge cars have more spacious seating, entertainment,¹³ and a food service area for beverages, snacks, sandwiches, and other lower-cost fare, rather than the full restaurant menu available in the dining car.
- **Dormitory cars** would not be needed because they house attendants who provide on-board services that would be discontinued. Transition dorm cars are a combination of employee dormitory rooms and passenger sleeper rooms. We eliminated revenues and costs from these cars.

Our calculations also assume that:

- None of the sleeper car passengers would switch to basic coach service if sleeper service is eliminated. The potential savings will be higher if some of the sleeper car passengers decide to use coach service.
- No coach passengers would abandon Amtrak if they no longer had access to amenities such as full-service dining cars, lounge cars, and checked baggage service. The net operating cost savings will be lower if any current coach passengers do not find Amtrak an attractive travel choice after those amenities are eliminated.
- These cuts would not necessarily trigger the job protection measures in collective bargaining agreements commonly known as C-2. The measures guarantee laid-off Amtrak employees benefits, pensions, collective bargaining rights, rehiring priority, job status retention, and training. The most notable benefit is the guarantee of severance of

¹³ On Amtrak's bi-level lounge cars, the top level is designed primarily for sightseeing and to provide an area for passengers to spend time away from their sleeper or coach cars. Onboard entertainment can include a feature movie in the lounge car, seasonal presentations, or onboard commentary by volunteer National Park Service rangers through Amtrak's Trails and Rails program.

5 years salary for the most senior Amtrak employees. The job protections are not invoked, however, unless an Amtrak route is eliminated or reduced in frequency to less than three times per week, or an Amtrak repair and maintenance center is closed and workers are laid off.

We used Amtrak's RPS data to calculate cost reductions. Because RPS does not provide data on how much of the labor costs associated with maintenance, heavy repair, and turnaround costs are variable,¹⁴ we produced estimates using the following three assumptions about this issue.

- Assumption A—All maintenance-related labor costs are variable.
- Assumption B—Fifty percent of all maintenance-related labor costs are variable.
- Assumption C—No maintenance-related labor costs are variable; only maintenance-related material costs can be eliminated.

The Bottom Line

We found substantial net savings under all three assumptions of the analysis on every route except the Auto Train.¹⁵ Summing across all the long-distance routes, annual losses are reduced by approximately \$75 million under Assumption C to \$158 million under Assumption A, on an operating cost basis (see Figure 1). These estimates are based on FY 2004 data, but we found similar reductions in losses using FY 2003 data.¹⁶ According to Amtrak's capital plan, eliminating all cars except coach cars and using fewer locomotives on long-distance routes would also avoid outlays for overhauls and other capital expenditures for the long-distance equipment. Consequently, providing basic coach service only would also reduce Amtrak's planned capital budget by about \$79 million a year.

Examples of Route-Specific Cost Decreases. The following shows typical cost reductions that can be achieved by redesigning long-distance service around basic

¹⁴ RPS is the only data that Amtrak has available to work with in analyzing impacts on route-level costs other than fuel, trainmen, and enginemen costs. It provides considerable detail on costs by route, but it does not provide information on how much of the labor costs associated with maintenance, heavy repair, and turnaround costs of the locomotives, sleeper cars, lounge cars, dining cars, and baggage cars discussed in this report are variable, and how much are fixed.

¹⁵ Under Assumption C, losses for the Auto Train increased. The reason for this is that the Auto Train service is markedly different from all other long-distance service. The Auto Train was designed to haul the family car along with passengers heading off to vacation or spend the winter in Florida. Sleeper-class passengers make up 44 percent of all passengers on this train, by far the largest percentage of all the long-distance routes. Also, OBS workers are governed by far more flexible work rules on this route than on others, allowing for cost savings not possible elsewhere.

¹⁶ Specifically, we performed an analysis of six routes under Assumption A using FY 2003 data, and found the results were similar to the results for those routes derived using FY 2004 data.

rail transportation in coach class (for more detail, see Exhibit D). We have selected two routes, the California Zephyr and the Sunset Limited, and will briefly lay out the projected savings according to Assumption B, under which 50 percent of all maintenance-related labor costs are considered variable.

The California Zephyr travels between Chicago, Illinois, and San Francisco, California, by way of Denver, Colorado. The train consists of two locomotives and nine cars: a baggage car, two sleeper cars, a diner car, a lounge car, three coach cars, and a transition dormitory car, which is used to provide sleeping quarters for the attendants who provide on-board services, as well as overflow sleeper class passengers. By eliminating the sleeper class service and other amenities, the train would lose all of the cars except the three coach cars. With much less weight to pull, only one locomotive would be needed for the train.

The total annual cost savings for the California Zephyr under Assumption B would be approximately \$27 million on an operating basis.¹⁷ The largest category of cost reduction is in the labor and supplies costs required for on-board services. This would amount to \$16.6 million annually on this route. The second largest category of operating cost savings is maintenance and turnaround service on the equipment, since there is one less locomotive and six fewer cars. This savings would amount to \$4.6 million. The third largest category of savings is diesel fuel for the locomotives, which amounts to \$2.8 million. Smaller savings would be achieved for information, advertising and sales; ticketing and station operations; wreck and accident costs; heavy repairs; yard operations; and passenger inconvenience, which is a category of funds spent when trains are severely late or cancelled.

The Sunset Limited travels between Orlando, Florida, and Los Angeles, California, by way of New Orleans, Louisiana, and Houston, Texas. The train is pulled by one locomotive between Orlando and New Orleans, and two locomotives between New Orleans and Los Angeles. The train has 11 cars: a baggage car, three sleeper cars (one sleeper car travels only part of the route), a diner car, a lounge car, four coach cars (one coach car travels only part of the route), and a transition dormitory car. By eliminating the sleeper class service and other amenities, the train would lose all of the cars except the four coach cars. Only one locomotive would be needed for the entire route.

The total annual cost savings for the Sunset Limited under Assumption B would be approximately \$15.2 million on an operating basis. The largest category of cost reduction for the Sunset Limited is in the labor and supplies required for on-board services. This would amount to \$10 million annually on this route. The second

¹⁷ Operating costs include all costs except interest and depreciation.

largest category of operating cost savings is maintenance and turnaround service on the equipment, since there is one less locomotive and seven fewer cars. This savings would amount to \$2.1 million.

Capital Costs

Amtrak's Capital Project Plan for FY 2005 through FY 2009 includes planned capital expenditures averaging about \$79 million per year that could be avoided by the removal of equipment assumed in our analysis. (See Table 6.) The removal of sleeper cars in particular accounts for 64 percent of these avoided costs. To the extent that these avoided planned capital expenditures translate into avoided actual expenditures, they represent cash savings.¹⁸

| Table 6. Amtrak Capital Project Plan Costs for Sleeper Class and Amenities | | | | | | |
|--|---------------|----------------|---------------|---------------|---------------|----------------|
| Fiscal Year | 2005 | 2006 | 2007 | 2008 | 2009 | 2005-09 |
| Remanufacturing and Overhaul of Existing Cars | | | | | | |
| Sleepers | \$23.3 | \$69.6 | \$30.3 | \$13.7 | \$7.8 | \$144.7 |
| Transition Dorms | 1.2 | 2.5 | 2.6 | 2.6 | 2.7 | 37.3 |
| Diners | .88 | 2.1 | 2.1 | 30.0 | 2.2 | 11.6 |
| Lounge Cars | .82 | 2.2 | 2.2 | 2.2 | 53.4 | 60.8 |
| Baggage Cars * | 3.5 | 3.5 | 0 | 0 | 0 | 6.9 |
| Locomotives * | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 24.8 |
| Acquisition of New Cars | | | | | | |
| Sleepers | 2.0 | 77.0 | 32.0 | 0 | 0 | 111.1 |
| Total | \$36.6 | \$161.8 | \$74.3 | \$53.5 | \$71.0 | \$397.3 |
| * Data for baggage cars and locomotives do not differentiate between expenditures for long-distance routes versus shorter routes. The figures here reflect our estimate of the share of these expenditures allocated to equipment that would be removed from long-distance routes. Totals may not add due to rounding. All numbers in millions of dollars. Source: OIG Analysis of Amtrak Capital Plan | | | | | | |

Another, more complete, way to gauge the capital cost savings associated with the elimination of equipment assumed in our analysis is to consider the extent of savings realized on a fully-allocated cost basis—i.e. including depreciation and interest. The capital expenditures listed above would have resulted in a corresponding increase in the book value of Amtrak's assets. The higher book value would result in increased depreciation expenses over time, which would be avoided. We note that depreciation is a non-cash expense.

In addition, most of the equipment to be removed from service is leased and, eventually, the interest costs associated with those leases can also be avoided. However, any savings by virtue of reduced interest payments would only likely be achieved in the longer term as the leases on the idled equipment expire. (While

¹⁸ Amtrak's capital plan is predicated on Amtrak's budget request being fully funded, which did not happen in FY 2005, and is unlikely to happen in FY 2006. We were unable to obtain information on which projects will be carried out in the event of such a capital funding shortfall.

Amtrak has both an early buyout option as well as the right to terminate in most of its leases, neither of these options provide for significant cost reductions.¹⁹⁾ In the longer term, savings on both depreciation and interest become important. We found that the reduction in annual losses on a fully-allocated basis ranges from \$184 million under Assumption C to \$267 million under Assumption A. On this basis, there were positive savings on every route under every assumption. (See Exhibit E for details on savings under Assumption B.)

Service Options

Food service. The Amtrak Inspector General has concluded that Amtrak spends about \$2 for each \$1 sale of food,²⁰ and has identified substantial problems in management of food operations, including its efforts to outsource. Our analysis assumes that whatever food service is ultimately provided, it will be at no net cost to Amtrak. *While one needs to recognize that passengers traveling on long-distance trains for 10 to 12 hours or longer clearly need a means to access food during the trip, this does not mean that food service should be provided with a Federal subsidy.*

Our analysis to date has not examined the elasticity of demand for coach service should diner-based food service and other amenities currently offered be eliminated. Amtrak officials have indicated that they are studying food service alternatives and are attempting to restructure its current contract with Gate Gourmet Inc., which operates Amtrak's commissaries. There are a number of options that should be explored that may provide food service for passengers at no net cost to Amtrak. Options for reducing costs for food service through initiatives or prototype test projects on several long-distance routes could include raising food prices, outsourcing, having passengers obtain meals in stations during regular stops, distributing boxed meals that have been prepared off the train, selling packaged food from carts on the trains, or redesigning the lounge cars so that they generate sufficient revenues to offset costs.

One or more of these options may require retaining a single lounge car on each long-distance train. Using FY 2004 cost figures, keeping one lounge car for food service on each train would reduce our previous estimated annual operating savings by \$44 million under Assumption A; \$38 million under Assumption B; and \$33 million under Assumption C. These calculations do not take into account the likelihood that passengers would purchase more from the lounge car if there

¹⁹ While some additional cost reductions could be achieved in the near term if Amtrak were able to either sublease any of the equipment, use it elsewhere in the system, or renegotiate the lease terms, we anticipate that the lack of a real secondary market for much of this equipment makes it more likely that Amtrak would initially store the equipment and continue to pay the associated leases.

²⁰ "Evaluation Report: Food and Beverage Financial Performance," Amtrak Inspector General Report E-05-05.

was no dining car, or that a more cost-effective way of providing service in the lounge may be developed.

Sleeper service. In disaggregating the savings found in our analysis by category of amenity—i.e. sleeper service, food service, baggage service, and other—we uncovered a notable result. The elimination of sleeper service alone, without the elimination of any associated food service or other amenity, produces a net loss on an operating cost basis under assumptions B and C on most routes. This suggests that it may be possible for Amtrak to develop a simplified sleeper service—i.e. unassociated with food service—that earns a positive net return on an operating cost basis from a marginal cost perspective.²¹ Note, however, that once capital costs are included, the elimination of even a simplified sleeper service alone is associated with substantial savings on every route, except the Auto Train, under any of our assumptions.

RECOMMENDATIONS

We recommend that the Amtrak Board of Directors:

1. Instruct Amtrak management to promptly perform a detailed analysis of the services provided on each of the long-distance routes. Within 60 days, Amtrak should submit for Board approval an action plan to implement multiple pilot projects on its worst-performing long-distance routes as well as on others that offer the best potential for savings. This would include pilots that involve the removal of sleepers and all amenities as described in this report. Other pilots could involve removing some of the amenities, or dining car service alone.
2. Within 90 days following its approval of the action plan, the Amtrak Board of Directors should report to the Secretary and to the Congress on Amtrak's progress and the financial status of efforts to reduce or eliminate the losses associated with providing such services or amenities. The Amtrak Board of Directors should direct management to suspend capital expenditures for the remanufacture of excess equipment or acquisition of new sleeper, dining, lounge, and baggage cars while the pilot projects are under way.

RESPONSE BY AMTRAK'S BOARD OF DIRECTORS

We provided Amtrak's Board of Directors with a draft of this report. In response, the Board agreed that its long-distance and food service operations represent two of its most urgent financial challenges. The Board acknowledged that long-distance passenger rail service cannot remain viable without significant reductions

²¹ A marginal cost perspective differs from a total or average cost perspective in that it does not allocate any costs to the additional service that are shared with an existing service. On an average cost basis, even a simplified sleeper service loses money.

in expenses and indicated that Amtrak will be launching a number of pilot projects to address the long-distance operating cost issues that our analysis identified. The key to achieving cost reductions will be Amtrak's commitment to follow through with these pilot projects, and for this reason we have included milestones for accomplishing this in our recommendations. The full text of the Board's response appears in an appendix to this report.

If you have any questions or if I can be of further assistance, please feel free to contact me at (202) 366-1959, or Kurt Hyde, Assistant Inspector General for Surface and Maritime Programs at (202) 366-6238.

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EXHIBIT A. SCOPE AND METHODOLOGY

Most of the data on which the analyses in this report were based were taken from Amtrak's Route Profitability System (RPS) for FY04. Some analyses were repeated using FY03 RPS data to validate that the qualitative results obtained were not exclusive to FY04. Supplemental data obtained from the Amtrak OIG were based on Amtrak payroll and food and beverage reports for FY03.

We did not validate the RPS data. Indeed, Amtrak has yet to complete its own audit of the FY04 RPS. We also did not validate the data obtained from the Amtrak OIG, except to ascertain that the sources from and methods by which it was obtained were reasonable.

The scope of this analysis encompassed the following aspects of Amtrak's long-distance routes: their revenue and cost structure; ridership characteristics; and planned capital expenditures. Planned capital expenditures data was taken directly from Amtrak's FY05-FY09 Capital Project Plan.

Information on the characteristics of long-distance ridership was drawn from several sources. One was Amtrak's "Long-Distance Train Network" report, published March 16, 2005. We also had ticket-lift data from Amtrak showing ridership by origin-destination pair and train. This was supplemented with data taken from published Amtrak timetables on the distance traveled between each origin-destination pair.

Our understanding of the revenue and cost structure of long-distance routes was primarily developed through close examination of the data provided in Amtrak's RPS on a line-by-line basis for each route, and associated RPS and Financial Information System (FIS) documentation. (RPS is assembled using FIS data.) This was further developed through several meetings held and multiple e-mails exchanged with Amtrak personnel on RPS and Amtrak's methods of projecting cost changes associated with service changes. RPS does not provide for a breakdown of food and beverage revenues or costs by diner versus lounge service. We obtained additional data allowing us to make such a breakdown from the Amtrak OIG, which, in turn, obtained it from internal Amtrak reports.

All the preceding information was supplemented with interviews of and e-mails exchanged with Amtrak personnel about a wide range of characteristics of long-distance service. We also took a tour of the equipment on one long-distance train, and made extensive use of Amtrak's National [Off-Corridor] Consist Book, effective April 26, 2004.

Analytical Methods

Before proceeding to any of the analyses reported on in this document, we developed data representing baseline service that excluded mail and express (M&E) for each of the routes. Since, Amtrak discontinued M&E service in FY05, it is inappropriate to incorporate M&E revenues and costs in any analysis of future operations. The process used to strip out these revenues and costs was similar to that used to derive other results in the report, and is described in the next section.

Total Savings Calculations

Three of the analyses that form the basis of this report were done using the same analytical methodology. Those three analyses included: (1) stripping out Mail and Express revenues and costs to derive a baseline service; (2) stripping out the revenues and costs associated with sleeper service and all amenities from the baseline service; and (3) stripping out the revenues and costs of sleeper service and all amenities except lounge car-based food service from the baseline service.

In these analyses, revenues for the particular discontinued service or amenities were removed, while those for the remaining services were assumed to be unaffected. In every case, there were costs that were clearly entirely related to the discontinued service or services, and would not remain, even in part, in their absence. For example, in the case of M&E, there were costs such as express cargo insurance and mail administration. For the case of stripping out sleeper class and other amenities, including all on-board services (OBS), all OBS labor and the costs of feeding and housing that labor were eliminated. With respect to stripping out sleeper service and all amenities except for lounge food service, the treatment of OBS labor and supplies required use of the Amtrak OIG supplemental information on the share of these costs lines that are related to diner service alone, and could therefore be eliminated.

The maintenance-related costs of the equipment associated with particular types of service, such as the costs of maintaining the sleeper cars associated with sleeper service, were reduced with the elimination of that equipment. However, it was unclear how much they should be reduced. Obviously, the materials costs of maintenance-related activities associated with eliminated equipment could be eliminated. However, it was unclear how much maintenance-related labor costs would fall. It would depend on how much the elimination of equipment resulted in a reduction in workforce, rather than just a reduction in workload.

Not having any information allowing us to determine the extent to which labor costs would actually vary, we made three assumptions: (A) all labor costs were variable; (B) 50 percent of labor costs were variable; and (C) no labor costs were variable. In all instances, we assumed that materials costs associated with

Exhibit A. Scope and Methodology

maintenance-related activities could be eliminated. To the extent that maintenance-related costs were variable, they were reduced in proportion to the change in the primary allocating statistic used in RPS¹ resulting from the elimination of the particular equipment. (Note that the analysis of the elimination of mail and express was always done using assumption B, so that the remainder of our analyses began from a consistent baseline.)

Calculation of fuel costs was performed by explicitly calculating the gallons consumed for each type of service, and then applying the average cost per gallon implicit in FY04 data for that route. This calculation of gallons consumed was done as it is done in RPS. Specifically, estimates were derived of the locomotive fuel, hotel fuel, car fuel, and idle fuel used for each service. This involved the use of additional data on car weights, the fuel rate for each category of fuel usage, and the percentage of time spent idling.²

There are a number of categories of costs relevant to the two analyses of stripping out sleeper class service and other amenities for which the RPS allocating statistic is either passenger revenues or the number of passengers. With the assumed loss of all sleeper class revenues, the costs assumed to be driven by passenger revenues were reduced proportionately. On the other hand, it was assumed that most of the costs associated with the number of passengers, such as station operations, would be relatively fixed and would not actually decline with a fall in passenger numbers. Exceptions were made for the costs associated with information and reservations and with ticketing, which were reduced in proportion with the assumed decline in ridership. Finally, in further keeping with the allocation mechanisms in RPS, depreciation and interest costs for types of equipment that were removed were reduced in proportion with the reduction in the number of pieces of each type.

Derivation of Results by Passenger Type

The development of revenues and costs on a per passenger basis for coach versus sleeper class was structured in two basic stages. The first entailed allocating revenues and costs of the baseline service to the following categories: coach only, sleeper class only, diner food service, lounge food service, other amenities, and other shared. The second stage involved allocating the revenues and costs associated with each category between coach passengers and sleeper class passengers.

¹ An allocating statistic in RPS is a statistic used to allocate costs within a given category across routes.

² Information on percentage of time spent idling came from Amtrak responses to a survey published in "Locomotive Emissions Standards", Regulatory Support Document, U.S. Environmental Protection Agency (EPA) Office of Mobile Sources, April 1998.

For a number of RPS line items, such as sleeping car labor, coach labor, and baggage handling costs, the first stage allocation was straightforward. For others, additional data or assumptions were necessary. The data allocating revenues and costs between diner and lounge-based food service was essential to the allocation of food and beverage-related revenues and costs. In the allocation of equipment-related costs, several assumptions were critical. (These assumptions affected the derivation of associated fuel costs as well.)

First, locomotive costs were treated differently on routes where there was only one locomotive per train set versus routes with two. In the case of the former, all locomotive-related costs were assigned to the category of other shared costs. On all routes served by two-locomotive train sets, except the Capitol Limited, the addition of sleeper cars to the assigned number of coach cars in itself would require the addition of a second locomotive. (The assigned number of cars here refers to the number of each type of car designated for trains on each route in the Amtrak consist book.) Consequently, on all those routes locomotive costs were split equally between the coach only and sleeper class only categories. This was done in the case of the Capitol Limited as well.

Two critical assumptions were made in the allocation of car-related equipment costs. The first is that the costs associated with the transition or single-level crew dorm would be allocated in proportion to its use. Hence, the costs of this equipment were allocated to sleeper class in proportion to the share of rooms kept aside for sleeper car passengers. The remainder was then allocated across categories in proportion to the share of OBS lodging costs accounted for by the associated labor. The second assumption was that half of the costs associated with the lounge car would be assigned to lounge food service, and the other half to other amenities. (Only the lower half of the lounge car is devoted to food service. The upper half is constructed to facilitate sightseeing, and is also the site of on-board entertainment.)

The second stage of this analysis utilized the following guidelines. The revenues and costs of other amenities and of other shared costs were allocated to each category of passenger in proportion to the number of passengers in that category. Diner food service and lounge food service revenues and costs were allocated to each type of passenger in proportion to the revenues of each type of food service accounted for by that type of passenger. Finally, coach and sleeper revenues and costs were assigned to coach and sleeper class passengers, respectively.

Disaggregation of Savings

In seeking to understand the sources of the savings we derived, we disaggregated savings into the following categories: elimination of sleeper service, elimination of food service, elimination of baggage service, and other. This analysis began with

Exhibit A. Scope and Methodology

taking the difference between the revenues and costs for the baseline service and the service without sleeper class or amenities. These differences were then allocated to our categories: sleeper service, food service, baggage service, and other. In most instances, this allocation was straightforward. The same assumptions about the activity-related allocations of equipment costs—that is the assumptions regarding allocation of transition dorm and lounge costs—were made in this analysis as were made in the derivation of results by passenger type. It was this analysis which led us to conclude that, solely on an operating basis, the elimination of sleeper service alone, without the elimination of any other amenities such as dining car food service, would actually increase losses.

EXHIBIT B. AMTRAK'S LOSSES PER PASSENGER AND PER PASSENGER MILE

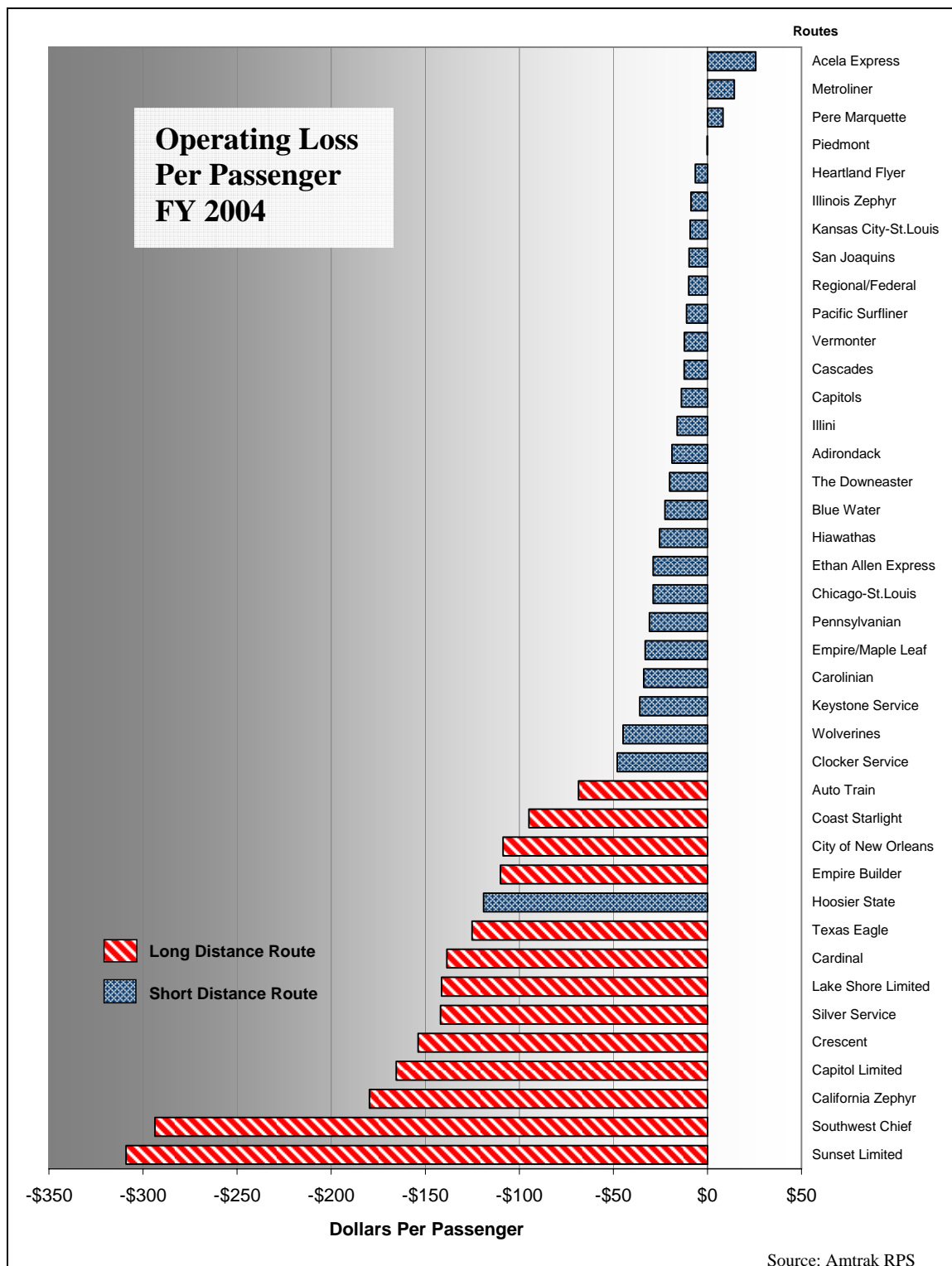


Exhibit B. Amtrak's Losses Per Passenger and Per Passenger Mile

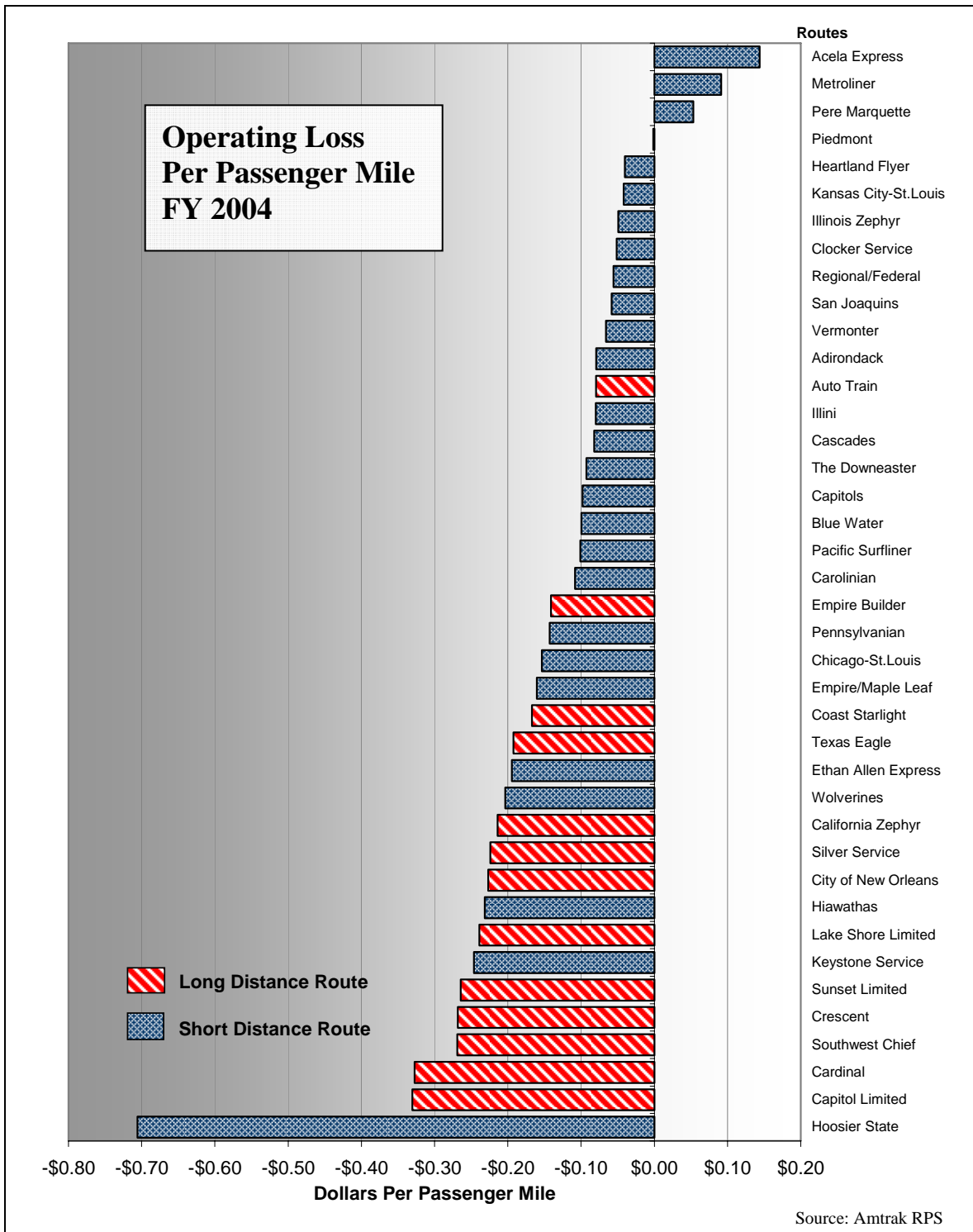


Exhibit B. Amtrak’s Losses Per Passenger and Per Passenger Mile

EXHIBIT C. ROUTE LENGTHS AND RIDERSHIP STATISTICS

| | | | | |
|---------------------------|-------------------------------------|--|--|------------------------|
| | Silver Service: Palmetto | Silver Service: Silver Meteor | Silver Service: Silver Star | Cardinal |
| <u>Coach Passengers</u> | 231,608 | 186,152 | 258,262 | 81,972 |
| % of Total | 100% | 87% | 88% | 92% |
| Aver. Distance traveled | 555 | 625 | 604 | 406 |
| <u>Sleeper Passengers</u> | 0 | 26,616 | 35,603 | 6,958 |
| % of Total | 0% | 13% | 12% | 8% |
| Aver. Distance traveled | 0 | 970 | 1,015 | 604 |
| <i>Route Length</i> | 829 | 1,389 | 1,522 | 1,146 |
| | Empire Builder | Capitol Limited | California Zephyr | Southwest Chief |
| <u>Coach Passengers</u> | 371,278 | 144,373 | 280,164 | 239,136 |
| % of Total | 85% | 80% | 83% | 82% |
| Aver. Distance traveled | 666 | 451 | 713 | 983 |
| <u>Sleeper Passengers</u> | 65,913 | 36,437 | 55,600 | 50,867 |
| % of Total | 15% | 20% | 17% | 18% |
| Aver. Distance traveled | 1,376 | 685 | 1,452 | 1,527 |
| <i>Route Length</i> | 2,206* | 764 | 2,438 | 2,256 |
| | City of New Orleans | Texas Eagle | Sunset Limited | Coast Starlight |
| <u>Coach Passengers</u> | 161,967 | 204,153 | 73,234 | 346,563 |
| % of Total | 85% | 87% | 76% | 83% |
| Aver. Distance traveled | 441 | 583 | 1,050 | 498 |
| <u>Sleeper Passengers</u> | 28,050 | 30,466 | 23,192 | 69,035 |
| % of Total | 15% | 13% | 24% | 17% |
| Aver. Distance traveled | 693 | 1,088 | 1,464 | 874 |
| <i>Route Length</i> | 926 | 1,306 | 2,764 | 1,389 |
| | Lake Shore Ltd. | Crescent | Auto Train | |
| <u>Coach Passengers</u> | 242,117 | 224,492 | 110,016 | |
| % of Total | 87% | 87% | 56% | |
| Aver. Distance traveled | 558 | 539 | 855 | |
| <u>Sleeper Passengers</u> | 37,545 | 32,085 | 87,467 | |
| % of Total | 13% | 13% | 44% | |
| Aver. Distance traveled | 794 | 766 | 855 | |
| <i>Route Length</i> | 959* | 1,377 | 855 | |

* Longest distance possible to travel on the route. This route bifurcates, so route length is longer than the longest distance a passenger would travel on it.

Source: Amtrak report "Long Distance Train Network," March 16, 2005.

Exhibit C. Route Lengths and Ridership Statistics

EXHIBIT D. COST REDUCTION EXAMPLES

Cost Reductions for the California Zephyr (FY 2004, Assumption B)

| | Service W/out Mail & Express | Coach Service W/out 1st Class & Amenities | Savings | Distribution of Savings |
|-------------------------------------|---------------------------------|---|---------------------|----------------------------|
| <u>Direct Costs</u> | | | | |
| Trainmen & Enginemen | 12,233,025 | 12,233,025 | - | 0% |
| Fuel & Power | 4,599,065 | 1,811,150 | 2,787,915 | 7% |
| OBS Services | 16,574,140 | - | 16,574,140 | 44% |
| Equipment Rental | 21,426 | 10,713 | 10,713 | 0% |
| Yard Operations | 1,107,763 | 755,293 | 352,470 | 1% |
| Maint. & Turnaround Service | 12,951,083 | 8,354,479 | 4,596,605 | 12% |
| Heavy Repairs | 719,918 | 452,617 | 267,301 | 1% |
| Wreck & Accident | 1,993,355 | 1,249,006 | 744,348 | 2% |
| Operations, Track & Facilities | 4,961,796 | 4,961,796 | - | 0% |
| Admin. & Route Support | 676,527 | 676,527 | - | 0% |
| Payments to Host RR's | 1,244,256 | 1,244,256 | - | 0% |
| Info, Advertising, Sales | 5,126,071 | 4,127,341 | 998,730 | 3% |
| Passenger Inconvenience | 1,340,783 | 1,118,759 | 222,024 | 1% |
| Connecting Bus Service | 215,872 | 215,872 | - | 0% |
| Insurance & Liability | 4,058,333 | 4,058,333 | - | 0% |
| Ticketing & Station Operations | 4,050,640 | 3,438,928 | 611,711 | 2% |
| Transportation Superv. & Training | 1,817,464 | 1,817,464 | - | 0% |
| Police & Safety | 302,815 | 302,815 | - | 0% |
| Special Trains | 356 | 356 | - | 0% |
| Total Direct Costs | \$73,994,688 | \$46,828,731 | \$27,165,956 | 71% |
| <u>Indirect Costs</u> | | | | |
| Maintenance of Way | 1,084,417 | 1,084,417 | - | 0% |
| Administration | 11,420,254 | 11,420,254 | - | 0% |
| Interest | 12,554,202 | 7,019,863 | 5,534,339 | 15% |
| Depreciation | 14,767,735 | 9,389,768 | 5,377,967 | 14% |
| Total Indirect Costs | \$39,826,608 | \$28,914,302 | \$10,912,306 | 29% |
| TOTAL | \$113,821,296 | \$75,743,034 | \$38,078,262 | 100% |
| TOTAL NET OF DEP. & INT. | \$86,499,359 | \$59,333,402 | \$27,165,956 | |

Source: OIG Analysis of FY2004 Amtrak RPS

**Cost Reductions for the Sunset Limited
(FY 2004, Assumption B)**

| | Service W/out Mail & Express | Coach Service W/out 1st Class & Amenities | Savings | Distribution of Savings |
|-------------------------------------|---|--|---------------------|------------------------------------|
| <u>Direct Costs</u> | | | | |
| Trainmen & Enginemen | 8,044,693 | 8,044,693 | - | 0% |
| Fuel & Power | 1,632,997 | 634,605 | 998,392 | 5% |
| OBS Services | 9,993,688 | - | 9,993,688 | 47% |
| Equipment Rental | 470 | 282 | 188 | 0% |
| Yard Operations | 409,138 | 275,542 | 133,596 | 1% |
| Maint. & Turnaround Service | 6,070,245 | 3,942,697 | 2,127,549 | 10% |
| Heavy Repairs | 349,611 | 232,062 | 117,550 | 1% |
| Wreck & Accident | 168,113 | 109,163 | 58,950 | 0% |
| Operations, Track & Facilities | 3,034,914 | 3,034,914 | - | 0% |
| Admin. & Route Support | 1,332,686 | 1,332,686 | - | 0% |
| Payments to Host RR's | (751,822) | (751,822) | - | 0% |
| Info, Advertising, Sales | 2,809,031 | 2,018,004 | 791,028 | 4% |
| Passenger Inconvenience | 574,448 | 436,284 | 138,164 | 1% |
| Connecting Bus Service | 131,486 | 131,486 | - | 0% |
| Insurance & Liability | 440,940 | 440,940 | - | 0% |
| Ticketing & Station Operations | 2,345,038 | 1,468,298 | 876,740 | 4% |
| Transportation Super. & Training | 95,668 | 95,668 | - | 0% |
| Police & Safety | 31,729 | 31,729 | - | 0% |
| Special Trains | - | - | - | 0% |
| Total Direct Costs | \$36,713,073 | \$21,477,230 | \$15,235,843 | 71% |
| <u>Indirect Costs</u> | | | | |
| Maintenance of Way | 366,479 | 366,479 | - | 0% |
| Administration | 4,846,787 | 4,846,787 | - | 0% |
| Interest | 6,866,102 | 3,746,855 | 3,119,247 | 15% |
| Depreciation | 8,732,545 | 5,753,530 | 2,979,015 | 14% |
| Total Indirect Costs | \$20,811,913 | \$14,713,651 | \$6,098,262 | 29% |
| TOTAL | \$57,524,986 | \$36,190,881 | \$21,334,105 | 100% |
| TOTAL NET OF DEP. & INT. | \$41,926,339 | \$26,690,496 | \$15,235,843 | |

Source: OIG Analysis of FY2004 Amtrak RPS

EXHIBIT E. NET SAVINGS FOR ALL ROUTES

| FULLY-ALLOCATED COST BASIS (Assumption B) | | | | | | | |
|--|---|------------------|------------------|-------------------------------------|----------------|------------------|--------------------|
| | Trains as Currently Structured (1) | | | W/out 1st Class or Amenities | | | Net Savings |
| | Revenue | Cost | Net | Revenue | Cost | Net | |
| Silver Service | 63.2 | 214.2 | (151.0) | 44.0 | 149.1 | (105.1) | 45.9 |
| Coast Starlight | 32.4 | 95.5 | (63.1) | 16.5 | 55.7 | (39.2) | 23.8 |
| California Zephyr | 34.2 | 113.8 | (79.6) | 16.5 | 75.7 | (59.2) | 20.4 |
| Crescent | 23.7 | 84.9 | (61.2) | 16.3 | 57.2 | (40.9) | 20.3 |
| Lake Shore Ltd. | 21.0 | 78.1 | (57.1) | 12.5 | 50.4 | (37.9) | 19.2 |
| Southwest Chief | 34.5 | 125.7 | (91.2) | 16.9 | 89.0 | (72.1) | 19.1 |
| Empire Builder | 42.0 | 112.7 | (70.8) | 23.4 | 76.3 | (52.9) | 17.8 |
| Sunset Limited | 12.5 | 57.5 | (45.0) | 5.2 | 36.2 | (31.0) | 14.0 |
| Capitol Limited | 12.7 | 49.4 | (36.7) | 6.3 | 30.8 | (24.4) | 12.2 |
| Texas Eagle | 17.2 | 59.0 | (41.9) | 10.3 | 41.3 | (31.1) | 10.8 |
| Auto Train | 47.2 | 83.6 | (36.4) | 21.3 | 48.3 | (27.0) | 9.4 |
| City of New Orleans | 12.8 | 42.9 | (30.1) | 8.5 | 29.7 | (21.2) | 8.9 |
| Cardinal | 4.9 | 23.5 | (18.6) | 3.5 | 18.5 | (15.0) | 3.6 |
| TOTAL | \$358.3 | \$1,140.9 | (\$782.7) | \$201.2 | \$758.3 | (\$557.1) | \$225.6 |
| (1) Excluding mail & express costs. | | | | All numbers in millions of dollars. | | | |
| OPERATING COST BASIS (Assumption B) | | | | | | | |
| | Trains as Currently Structured (1) | | | W/out 1st Class or Amenities | | | Net Savings |
| | Revenue | Cost | Net | Revenue | Cost | Net | |
| Silver Service | 63.2 | 149.7 | (86.5) | 44.0 | 104.7 | (60.7) | 25.8 |
| Coast Starlight | 32.4 | 71.4 | (39.0) | 16.5 | 42.1 | (25.7) | 13.4 |
| Crescent | 23.7 | 59.9 | (36.2) | 16.3 | 40.9 | (24.6) | 11.6 |
| Southwest Chief | 34.5 | 97.4 | (62.8) | 16.9 | 69.6 | (52.6) | 10.2 |
| California Zephyr | 34.2 | 86.5 | (52.3) | 16.5 | 59.3 | (42.8) | 9.5 |
| Empire Builder | 42.0 | 86.9 | (44.9) | 23.4 | 60.1 | (36.7) | 8.3 |
| Sunset Limited | 12.5 | 41.9 | (29.4) | 5.2 | 26.7 | (21.5) | 7.9 |
| Lake Shore Ltd. | 21.0 | 55.2 | (34.2) | 12.5 | 38.8 | (26.3) | 7.9 |
| Texas Eagle | 17.2 | 45.6 | (28.4) | 10.3 | 32.2 | (22.0) | 6.5 |
| Capitol Limited | 12.7 | 36.5 | (23.8) | 6.3 | 23.9 | (17.6) | 6.2 |
| City of New Orleans | 12.8 | 33.2 | (20.4) | 8.5 | 23.0 | (14.5) | 5.9 |
| Cardinal | 4.9 | 17.1 | (12.3) | 3.5 | 13.5 | (10.0) | 2.2 |
| Auto Train | 47.2 | 60.8 | (13.6) | 21.3 | 33.9 | (12.6) | 1.0 |
| TOTAL | \$358.3 | \$842.2 | (\$483.9) | \$201.2 | \$568.8 | (\$367.6) | \$116.3 |
| (1) Excluding mail & express costs. | | | | All numbers in millions of dollars. | | | |
| Source: OIG Analysis of Amtrak RPS | | | | | | | |

EXHIBIT F. MAJOR CONTRIBUTORS TO THIS REPORT

| <u>Name</u> | <u>Title</u> |
|-------------------------|--|
| Kurt Hyde | Assistant IG for Surface and Maritime Programs |
| Stuart A. Metzger | Program Director |
| Betty Krier | Economist |
| Clayton W. Boyce | Editor-Writer, Strategic Communications |
| Mitchell Behm | Supervisory Financial Analyst |
| Debra Mayer | Economist |
| Christopher T. Brothers | Senior Analyst |
| Akilah Boston | Analyst |

APPENDIX. RESPONSE FROM AMTRAK'S BOARD OF DIRECTORS

The Amtrak Board of Directors has reviewed your "Analysis of Cost Savings" and would like to express its appreciation to the DOT Inspector General's office for its considerable efforts. No one familiar with Amtrak will disagree with your conclusions that its long-distance and food service operations represent two of its most urgent and intractable financial challenges, and the Amtrak Board has been diligently addressing the problems for several months.

With your analysis of the "first class" or sleeper service costs of Amtrak's long-distance operations, you have added valuable clarity and confirmed more emphatically the direction the Amtrak Board continues to take since the launch of its Strategic Reform planning process early this year to reduce long-distance system operating expenses. As we move toward an environment in which States will begin to shoulder a share of long-distance operating losses, long-distance passenger rail service cannot remain viable without significant reductions in operating expense.

As your analysis seems to acknowledge, there is no quick or simple "fix;" nonetheless, in the months to come, Amtrak will be launching a number of pilot projects intended to identify the most effective strategies for addressing the long-distance operating cost issues you have highlighted.

David Laney, Chairman of the Board of Directors
National Rail Passenger Corporation