



WHITE PAPER

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Sleeping Car Service

- Sleeping car service on Amtrak's long distance trains generates an incremental operating profit of at least \$40 million (based on Fiscal 2004 data, see Table 1).
- Using the same detailed cost data employed by the USDOT Inspector General, we calculated that the incremental revenue from sleeping car service exceeded the incremental cost on every route. The gross margin on sleeping car service averaged 32% for the system; it was 48% on the Lake Shore Limited (Table 2).
- Sleeping car service performs an important transportation function. Sleeping cars carried people over 630 million miles in each of the last two years. For perspective, sleeping cars carry people more miles than Amtrak's premium high speed Acela Express & Metroliner services in the Northeast – 22% more in FY 2004 and 51% more in FY 2005 (Table 3).
- **The federal cost of moving one person one mile in a sleeping car is less than it is in coach.** In fact, the cost of carrying a person one mile on a full service train that provides passengers with a range of attractive choices including sleeper, lounge, dining car and checked baggage service is actually lower than what the IG projects it would be on a bare bones train offering only coaches without any amenities (Table 4).
- The DOT IG's analysis further demonstrates that the federal cost "per passenger" (rather than passenger-mile) reflects only distance traveled, not class of service. That is, the federal cost of moving one passenger in coach and another passenger in sleeper on trips of equal length is roughly equal—slightly lower in sleeper!

	FY 2004		
	Coach Only	Sleeper & Diner	Total
Passenger Miles	1,947,006,984	640,067,239	2,587,074,223
DOT IG Loss (millions)	\$367.6	\$116.3	\$483.9
Cost per Passenger mile	\$0.1888	\$0.1817	\$0.1870

- The federal cost of operating a national network of trains with just coaches and no food or other amenities would be far greater than the cost of continuing the current level of service. Under any scenario, the goal of break-even food service is unrealistic and ignores the fact that, worldwide on all transportation, when food is provided it is to enhance overall revenues, not to serve as its own profit center.
- In order to realize the projected "savings," the IG makes the unrealistic assumption that coach passengers would continue to patronize a coach only service. This assumption is not credible because of the large number of coach passengers who use coach to make very long trips. Indeed coach passengers outnumber sleeper passengers in **every** distance category.
- Passengers making long distance trips in coach are "high value" customers. In FY 2004 (the year the IG analyzed), coach passengers traveling 400 miles or more accounted for 81% of total coach revenue; coach passengers traveling 800 miles or more accounted for 54% of revenue. It is highly likely that most if not all of these passengers would not use a bare bones coach only service. The \$170 million of coach revenue that a bare bones coach only service would put "at risk" would more

than offset even the high end “savings” the IG estimates its recommendations would achieve. (Table 5)

- Reducing long distance trains to coach only service would dramatically reduce public utility, volume of use, and revenue while simultaneously increasing both cost per passenger mile and per passenger, making the service inefficient, irrelevant to the traveling public and unjustifiable.
- The proper goal is to drive efficiency. That means reducing federal cost per passenger mile not total federal cost. Volume drives efficiency by increasing revenue and lowering unit costs. USDOT IG has turned these important priorities upside down.

Table 1

Sleeping Car Incremental Revenue and Incremental Cost in FY 2004

		Notes
Sleeper Revenue	\$129,624,994	1
Sleeper OBS Cost	\$21,088,057	2
Linens & Laundry	\$2,559,663	3
Fuel Cost	\$10,923,035	4
Turn Around Services-sleepers	\$7,585,207	5
Turn Around Services - engines	\$2,275,244	6
Program Maintenance	\$6,018,586	7
Heavy Maintenance	\$2,110,015	8
Wreck & Accident	\$2,080,529	9
Ticketing & Station Operation	\$4,716,445	0
Reservations & Information	\$6,573,413	10
Commission & Inconvenience	\$8,863,750	11
Food Cost Savings	\$13,924,068	12
Sleeper incremental cost	\$88,710,220	
Sleeper Gross Profit	\$40,914,774	
Sleeper Profit Margin	32%	

Notes

1 – Sleeper transportation & accommodation revenue (this includes California Zephyr sleeper revenue, almost all of which RPS incorrectly identified as Custom & club accommodation revenue).

2 – Direct sleeper attendant wages plus a proportionate share of OBS support (sleeper at percent of sleeper, dining car and coach labor).

3 – 50% of total linen and laundry cost (balance to food service, see also note 12).

4 – Total route fuel cost divided by total car miles times number of sleeping car miles. Cost per car mile averaged \$.18 for the system but varied wildly from a low of \$.08 for the Zephyr to a high of \$.36 for the City of New Orleans.

5 – Annual turnaround cost divided by annual trips (corrected for Builder Portland section and Lake Shore Boston-Albany segment), divided by number of cars per trip (car miles divided by train miles). Cost per car averaged \$268 for system but ranged wildly from a low of \$151 on the Eagle to a high of \$711 on the Sunset.

6 -- Assumes sleeper elimination would allow all trains to operate with only one locomotive. **This assumption may understate the incremental profitability of sleepers**, since Amtrak says most of the trains not already running with a single locomotive could not safely operate with only one locomotive. [Locomotives per train are calculated by dividing locomotive miles by train miles. Cost per locomotive determined by dividing annual turnaround cost by number of unit trips (corrected frequency multiplied by number of units). Savings calculated by multiplying cost per unit by units saved by corrected annual frequency.]

7 – Percent of sleeping car miles times total car program maintenance.

8 – Percent of sleeping car miles times total car heavy maintenance.

9 – Percent of sleeping car miles times total car wreck and accident.

10 – Percent of sleeping car passengers multiplied by total redcap and ticket (both route & shared station) cost.

11 – Percent of sleeping car revenue multiplied by total cost of commissions and inconvenience.

12 – Sleeping car transfer as percent of total F&B revenue multiplied by total cost of food, liquor & tobacco and ½ of linen (other half allocated entirely to sleeping cars).

Table 2
Net Sleeping Contribution by Route

Route	Gross Profit	Profit Margin
Southwest Chief	\$6,629,667	44%
Auto Train	\$6,074,924	34%
California Zephyr	\$6,004,271	39%
Empire Builder	\$5,781,456	36%
Silver Service	\$3,661,306	25%
Lake Shore Limited	\$3,526,934	48%
Coast Starlight	\$3,317,673	26%
Sunset Limited	\$1,877,174	31%
Capitol Limited	\$1,728,563	31%
Three Rivers	\$948,552	37%
Texas Eagle	\$914,535	16%
Crescent	\$267,298	4%
City of New Orleans	\$112,750	3%
Cardinal	\$69,673	7%
Sleeper Total	\$40,914,774	32%

Table 3
Passenger Miles in Sleepers and Premium NEC Trains

	Passenger Miles	
	FY 2004	FY 2005
Star	36,333,780	32,844,144
Meteor	25,906,639	35,504,568
Three Rivers	9,579,351	2,338,739
Cardinal	4,285,605	4,492,025
Builder	91,556,326	103,739,923
Capitol	25,416,794	25,894,918
Zephyr	82,800,315	84,825,297
Chief	78,638,566	79,068,502
City New Orleans	19,735,184	18,333,672
Eagle	32,928,424	30,942,720
Sunset	34,439,264	27,838,926
Starlight	60,854,887	58,318,023
Lake Shore	30,428,592	28,794,761
Crescent	24,980,378	26,795,749
Auto Train	75,587,190	74,785,599
Total Sleeper	633,471,295	634,517,566
Acela	458,129,000	311,890,000
Metroliner	61,713,000	109,576,000
NEC High Speed	519,842,000	421,466,000

Table 4
Federal Cost per Passenger mile Based on USDOT IG Analysis

	FY 2004			Sleeper less (more) than coach
	Coach	Sleeper	Total	
Passenger Miles	1,947,006,984	640,067,239	2,587,074,223	
DOT IG Loss (millions)	\$367.6	\$116.3	\$483.9	
Cost per Passenger mile	\$0.1888	\$0.1817	\$0.1870	\$.0071
Auto Train	\$0.1335	\$0.0132	\$0.0800	\$0.1203
California Zephyr	\$0.2164	\$0.1147	\$0.1864	\$0.1017
Southwest Chief	\$0.2252	\$0.1297	\$0.2012	\$0.0955
Empire Builder	\$0.1490	\$0.0896	\$0.1329	\$0.0595
Sunset Limited	\$0.2814	\$0.2294	\$0.2652	\$0.0520
Capitol Limited	\$0.2724	\$0.2439	\$0.2644	\$0.0285
Total	\$0.1888	\$0.1817	\$0.1870	\$0.0071
Texas Eagle	\$0.1859	\$0.1974	\$0.1884	(\$0.0115)
Lake Shore Ltd	\$0.1956	\$0.2596	\$0.2074	(\$0.0641)
Coast Starlight	\$0.1489	\$0.2202	\$0.1676	(\$0.0713)
City of New Orleans	\$0.2038	\$0.2990	\$0.2244	(\$0.0952)
Silver Service	\$0.1578	\$0.3290	\$0.1868	(\$0.1712)
Cardinal	\$0.3016	\$0.5133	\$0.3258	(\$0.2118)
Crescent	\$0.2042	\$0.4644	\$0.2489	(\$0.2602)

Table 5
Coach Revenue by Distance Traveled
FY 2004

Distance (miles)	400-799			Total
	< 400 miles	miles	800+ miles	
Meteor	\$1,929.7	\$4,872.7	\$6,440.3	\$13,242.7
Star	\$3,024.1	\$5,146.7	\$7,224.8	\$15,395.6
Palmetto	\$3,737.1	\$6,772.9	\$5,058.1	\$15,568.1
Silver Service	\$8,690.9	\$16,792.3	\$18,723.2	\$44,206.4
Coast Starlight	\$4,733.0	\$5,218.7	\$8,552.0	\$18,503.7
Crescent	\$4,034.5	\$6,918.8	\$7,771.1	\$18,724.4
Southwest Chief	\$1,505.8	\$3,277.0	\$13,309.0	\$18,091.8
California Zephyr	\$3,829.7	\$2,623.5	\$9,696.2	\$16,149.4
Empire Builder	\$5,050.2	\$6,807.4	\$10,749.5	\$22,607.1
Sunset Limited	\$380.2	\$904.3	\$3,711.3	\$4,995.8
Lake Shore Ltd	\$2,778.0	\$4,561.2	\$10,605.9	\$17,945.1
Texas Eagle	\$2,572.0	\$1,498.5	\$5,700.8	\$9,771.3
Capitol Limited	\$1,955.8	\$4,198.4	\$0.0	\$6,154.2
City of New Orleans	\$1,981.6	\$4,546.9	\$12,759.0	\$19,287.5
Cardinal	\$1,507.2	\$1,258.4	\$2,451.3	\$5,216.9
Auto Train			\$9,025.0	\$9,025.0
Auto Train Vehicle			\$10,948.5	\$10,948.5
Total Long Distance Coach	\$39,018.9	\$58,605.4	\$113,054.3	\$210,678.6