

URPA SPECIAL REPORT

AMTRAK 2013 RESULTS ANALYZED

UNITED RAIL PASSENGER ALLIANCE JACKSONVILLE, FLORIDA

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OVERVIEW

Amtrak's financial and operational results for FY 2013 (the 12 months ending September 30, 2013) are now available (audited FY '13 annual financial statements will be released sometime in 2014). This URPA Special Report analyzes these results, together with extrinsic data compiled by the U.S. Bureau of Transportation Statistics.

The 2013 results are especially useful to illuminate the performance of Amtrak's three chief operating segments:

- the Northeast Corridor (Richmond – Washington, D.C. – New York – Boston);
- the various regional short corridors (e.g., the Pacific Surfliners, San Diego – Los Angeles – San Luis Obispo; or the Chicago-hub corridors to Milwaukee, St. Louis, Detroit, etc.); and
- the interregional long distance trains (e.g., New York – Florida, or Chicago – Seattle/Portland).¹

Amtrak's FY 2013 data show that measured by production of passenger transportation, i.e., the actual volume of transportation produced by the trains operated in these three segments, the NEC (contrary to popular belief and Amtrak representations) is the smallest, weakest and most heavily subsidized segment Amtrak operates. The interregional long distance segment is by far the largest, strongest, least subsidized, and still the most underdeveloped segment that Amtrak operates. The non-NEC regional short distance corridors as a group also produce slightly more transportation output than does the NEC, but at a small fraction of the subsidy cost required by the NEC. See Table 1.

These results continue a consistent record of segment contribution dating from 1975.

¹ Amtrak, having lost recent competitive bidding contests, has largely withdrawn from the commuter train contract operator business segment.

TABLE 1
 2013 PERFORMANCE METRICS
 SOURCE: AMTRAK

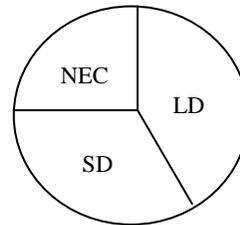
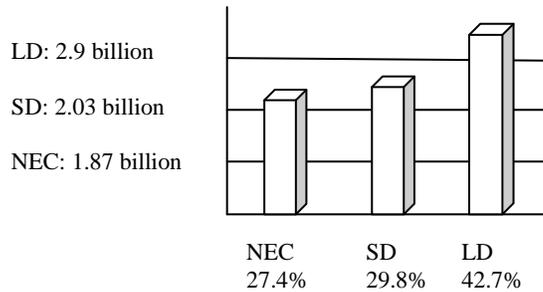
	<u>NEC</u>	<u>SHORT DISTANCE</u>	<u>LONG DISTANCE</u>
Passenger Miles* (000)	1,865,969	2,025,339	2,901,305
- Index	1	1.085	1.555
Train miles* (000)	9,041	14,836	15,307
Load Factor* (%)	52.5	42.1	62.8
- Pass. miles/* train mile	206.4	136.5	189.6
Avg. Price* (\$/mi.)	.59	.235	.18
Segment Ticket Revenue (000\$)	1,101,034	475,371	528,614

*GLOSSARY

- Passenger miles: one passenger carried one mile
- Train miles: one train (of any length) operated one mile
- Load factor: percentage of available seat miles (inventory) occupied by paying passengers (output)
- Pm/tm: aggregate number of revenue passengers on board on average per train mile
- Price: average cost per mile of tickets sold; also called "yield"

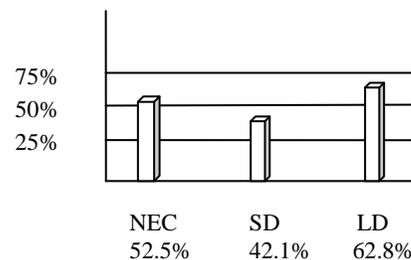
FIGURE 1
 2013 PASSENGER MILES (OUTPUT)
 SOURCE: AMTRAK

Passenger Miles



Amtrak's data plainly shows that the NEC is Amtrak's smallest segment. The interregional long distance segment is the largest, with more than half again the transportation output as the NEC. Even the dispersed short distance corridors produce more transportation output than does the NEC. This pattern is consistent with prior years to 1975.

FIGURE 2
 2013 LOAD FACTORS
 SOURCE: AMTRAK



Amtrak's data also plainly shows that Amtrak produces much more inventory in the NEC than it is able to sell. This proves that Amtrak is substantially overinvested in this segment. The load factors in the Long Distance segment (as explained below, these load factors represent trains that statistically are nearly sold out) demonstrate that Amtrak is materially underinvested in this segment. This also demonstrates why Amtrak's largest segment shows little growth: its trains are already full.

Perhaps the most striking illustration of the relative productivity of the NEC and Long Distance segments lies in this simple observation of Amtrak's data: Any two of the (daily service) western long distance trains alone produce as many or more passenger miles of transportation as the entirety of Amtrak's Acela "high speed" service in the NEC. These long distance trains operate one train a day (necessarily servicing some major cities, e.g., Cleveland or Salt Lake City, in the middle of the night) and typically operate with just two or three coaches and two sleeping cars. Acela makes up to 50 weekday trips (16 each way between Washington, D.C. and New York, nine of which go to or from Boston), with four coaches and one first class car in each train.

These results are the exact opposite of how Amtrak chooses to represent its segment results. Amtrak chooses to report its performance on the basis not of transportation output but on the basis of sales transaction volume. In intercity passenger transportation, transaction volume is reported as "ridership" and the volume of transportation output as "passenger miles." This distinction is critical because not all passengers are identical in their economic value to a carrier. One passenger carried 1,000 miles is worth more than one passenger carried 100 miles, subject to adjustment for the price charged for the transport provided. Tickets for shorter trips ordinarily are priced at a higher price per mile than those for longer distance trips, and the price per mile (called "yield") tends to taper down with increasing distance. A 100 mile trip on train A might be priced at 40¢/mile (for a \$40 fare) while a 400 mile trip on the same train might be priced at 21¢/mile (for a \$64 fare). These two hypothetical "riders" are not of equal value. Amtrak prices vary significantly based on many factors: some short Acela fares approach \$1/mile, while the average yield of the long distance trains is about 18¢/mile (varying significantly between coach fares that average about 12¢/mile and sleeping car fares that in peak periods can average five times that). Some sleeping car fares for point-to-point one way trips on western long distance trains regularly exceed \$1,000 per "rider".

But the critical factor is that any passenger carrier, including Amtrak, exists to move people over distance. The best single measure of performance in this activity is "revenue passenger miles" (RPMs), not the simple number of sales transactions (ridership). Static equipment displays produce "ridership" with each visitor, but their output of transportation, measured by RPMs, is zero.

"RIDERSHIP" NUMBERS ARE INTRINSICALLY MISLEADING

Ridership numbers alone are a severely misleading indicator of route and segment performance of a passenger transportation business.

First, they can be manipulated. In segments with high demand, failure to respond by adding capacity suppresses transaction volume and artificially caps sales, hence ridership. Thus, in markets where trains are full or nearly so, failure to add seats by adding one or more cars will produce both a smaller "ridership" and an apparent lack of growth, despite growing population and unfulfilled demand for transport.

Second, ridership numbers do not reflect either trip length, hence output of transportation provided, or contribution of a service to mobility in its travelshed, reflected in market share.

Amtrak's FY 2013 data, consistent with prior years, shows that interregional long distance trains as a group and on average over the year run "sold out" (with reported average load factors in FY '13 of 62.8%). In long distance markets, a load factor of approximately 65% is a "sold out" condition because the large turnover of seats and berths along routes that can reach 2,200 miles with 20 or more stations (and more than 375 potential origin/destination city pairs), and average trip lengths of 500 to 800 miles, means that a seat that is unoccupied at point A has already been sold to a passenger boarding at point B, farther down the line. On the Chicago-Seattle/Portland Empire Builder, for example, every seat and berth on average turns over more than twice every trip.

This in turn means that the long distance trains, as a group, are statistically incapable of experiencing any material growth in "ridership." Amtrak refuses thousands of high value reservation requests on these trains every year for lack of carrying capacity. Many of these prospective passengers are willing to pay thousands of dollars each to use Amtrak's long distance services.

Amtrak's ridership and load factor data also proves that, since latent demand for long distance transport exceeds supply, Amtrak is underinvested in the long distance segment. In its short distance corridors, including the NEC, load factors hover in the range of 40 – 50%. Amtrak is consistently unable to sell half or more of its inventory (of "available seat miles") in the NEC and other short corridors. These data show that Amtrak is somewhat over-invested in these segments. Like any merchant that consistently fails to sell half or more of its inventory, Amtrak should scale back its operations in most of the NEC, or sharply reduce its prices, in order to fill its chronically half-empty trains.

"Ridership" is also misleading as an indicator of performance for another reason: route segmentation. This is a serious problem in the NEC, where trains ordinarily are full or nearly so but only in the very short, quasi-commuter, segments between Philadelphia, New York and New Haven. A high level of "ridership" that occurs only over very short distances conceals the inescapable arithmetic inference that because most trains are full PHL – NY – NHV, but have an overall route load factor of 52%, these trains have to be very lightly loaded elsewhere in the NEC in order to drive down the segment load factor to 52%.

Nearly half of all of Amtrak's NEC "ridership" occurs solely in the very short commuter segments between Philadelphia, New York and New Haven where Amtrak overlaps existing services of SEPTA, NJT, and MNCRR.

Segment ridership on Amtrak's NEC trains also shows that – setting aside the local ridership that occurs solely within the very short commuter segments between Philadelphia, New York and New Haven – ALL of the remaining Amtrak riders on all of its NEC trains could easily be accommodated in unused, existing capacity in air and highway modes in the NEC by the simple expedient of dispatching one standard bus every 15 minutes to serve intermediate markets and sending endpoint passengers (Washington, D.C. – New York and Boston – New York) to the airport. Existing air shuttle load factors are low enough as to absorb easily the additional traffic, and in peak periods, larger aircraft (e.g., a 757 in place of an MD-80) could be used as needed. No additional flights need be operated, so the ATC impact would be zero.

RIDERSHIP AND MARKET SHARE

Since 1975, Amtrak has invested more than 50 billion dollars into its NEC segment (representing nearly all of its available capital provided free of cost by its de facto investment banker, the U.S. Congress). This is expressed in historic dollars; in constant 2014 dollars, this capital investment exceeds \$100 billion.

Omitted entirely from Amtrak's reported FY '13 data is any statement of Amtrak's market share in what Amtrak misrepresents as its most "successful" segment, the NEC. Fortunately, this data can be determined from reports of the U.S. Bureau of Transportation Statistics.² Market share data is important for commercial and competitive reasons but it is also valuable as a proxy for return on capital investment. Share data offers a way to answer the question, "What have we bought with our capital investment?"

Sadly, the answer in the NEC is, "Not much." Amtrak's share of intercity passenger travel in the NEC is about 1½ to 2%.

The net result of the expenditure (or "investment") of \$50 billion on Amtrak's NEC segment is a service with a sub-2% market share, i.e., a trivial or insignificant contributor to regional mobility. And given the still-growing population and mobility within the NEC, Amtrak's market share appears to be eroding, not growing.

The inescapable inference is that Amtrak's emphasis on "ridership" data obscures three critical and largely unreported facts about Amtrak's performance in the NEC:

- the numbers carried, apart from New York City area quasi-commuter traffic, are not significant in either absolute terms or as a contributor to regional mobility;
- Amtrak is over-invested in this segment, as long as 47% of its inventory goes unsold (far more goes unsold outside of New York area commuter traffic); and,
- measured by transportation output and market share rather than transactions, the NEC is Amtrak's smallest and weakest segment.

FINANCIAL RESULTS

Amtrak's unaudited preliminary financial results for FY '13 continue a disheartening pattern of growing annual losses. In broad terms, Amtrak spends \$4.2 billion to earn \$3 billion in revenue. The difference, roughly \$1.2 to \$1.3 billion, is covered by federal grants.

² Amtrak reports a misleading value of its modal split as against commercial air carriers for NEC traffic. This data is meaningless as an indicator of performance or return on investment because air and rail combined represent less than 10% of intercity travel in the NEC. Amtrak's actual market share of NEC travel is less than 2%. "Intercity travel" is defined as non-recurring trips over 100 miles.

The annual net loss in FY '13 (\$1.228 billion) was down very slightly (approximately \$11 million) from FY '12 (\$1.239 billion) largely due to Amtrak's discretionary deferral of certain (mostly NEC) spending (totaling \$231 million) that is likely to occur instead during FY '14.

Amtrak's reported segment financial results of operations (apart from its consolidated corporate results) are controversial and unreliable for purposes of understanding either segment financial results of operations or return on investment from the expenditure of the annual federal subsidy.

For FY '13, Amtrak claims the NEC produced revenues of \$1133 million (including \$32 million from states) on costs of \$760 million for a net (positive) contribution of \$373 million. Regional corridors produced \$690 million (including state payments totaling \$215 million, in addition to ticket revenue) on costs of \$871 million for a net loss of \$181 million. Long distance routes brought in \$569 million (100% from ticket revenue) on reported costs of \$1004 million for a purported net loss of \$435 million.³

But these reported results are not accurate or reliable. First, all of Amtrak's claims are unsupported. No objective, independent, review (other than URPA's) has ever been made of Amtrak's internal route-specific numbers. Second, these internal profit and loss claims are NOT part of the audited annual financial statements, so they have not been corroborated by Amtrak's auditors. Third, the costs are allocated using Amtrak's deeply-flawed internal cost accounting system, which cannot and does not measure or trace the costs of discrete activities. Instead, it allocates costs from system aggregations out to particular activities using formulas made up by management. And, Amtrak constantly changes the accounts and the allocation rules, so the claims are not necessarily consistent or comparable from one year to another.

Independent analysis by the US DoT about ten years ago pegged the annual cash cost to the government (i.e., the allocation of the annual federal subsidy) of all of the long distance trains at about \$100 million. Recent study by URPA pegs the current cash cost at about \$200 million, which is consistent with the earlier DoT analysis.

Recently, URPA discovered that even Amtrak doesn't believe its own internal segment performance numbers. In a letter to a US Senator dated August 15, 2011, a senior officer of Amtrak, answering a question about the financial burden of the long hauls, said: "... [T]he final net reduction in operating costs [if all the long haul trains ceased operating, and after labor protection ended] would be modest due to the fact that many of the costs associated with long-distance services are shared with other parts of the national network and would remain in the absence of the long-distance services."

"...[W]ould be modest..." is not \$435 million as reflected in Amtrak's internal statement, or any other made-up big number. "Modest" suggests a cost close to our assessment that the long hauls as a group receive less than 10% of the annual subsidy, and that the vast majority of the subsidy is used instead to support the NEC and some of the regional short corridors. This is a pattern that has been consistent since 1975.

³ Pass-through subsidy of Railroad Retirement programs via Amtrak, corporate general and administrative costs, plus interest on past borrowing for Acela and other NEC programs, may account for the balance of the annual subsidy.

Amtrak's use of its annual federal subsidy is clouded in obfuscation. Amtrak arbitrarily classifies some uses of this money as "capital" in nature and does not charge these costs against train revenue, apparently because it is used to subsidize upkeep and improvements to fixed facilities, predominantly in the NEC. Other uses are classified as "operating" and are charged against train revenue because they are used to support variable costs of train operations. Amtrak does not charge its so-called "capital" subsidies to the NEC as "costs" associated with its train operations there, thus artificially inflating the apparent financial results of NEC train operations.

But these classifications are arbitrary. A federal dollar spent to provide necessary support for a discrete activity or group of activities is a dollar of subsidy, whether the support is spent on fixed facility costs or, e.g., labor costs.

Amtrak's classification of some parts of its federal subsidy as "capital" in nature because it is spent on NEC station operations or track maintenance does not make it any less of a subsidy, or any less necessary for and directly related to NEC train revenues. Amtrak's reports of NEC financial results appear not to include this so-called "capital" spending.

And unless Amtrak misrepresented itself to a member of the US Senate in 2011, we also know that a very large share of the costs charged against long distance trains in reported segment results are in fact costs that Amtrak would continue to incur to operate NEC and other regional trains in the absence of all long distance trains. They are, therefore, not incremental to long distance trains at all.

The inescapable conclusion is that long distance trains perform far better financially than Amtrak reports, and the NEC segment far worse. When the NEC segment is charged with its proper share of the annual federal subsidy grant, including what Amtrak calls the "capital" categories such as station costs and track maintenance, plus amortization, the NEC loses more than \$250 million a year and possibly as much as \$600 million. When the long distance segment is charged only with the costs that it incurs to earn its revenue, it loses – and consumes in federal subsidy – only \$200 million or less, to produce more than 150% of the NEC's output of passenger miles. Thus, the NEC is not only Amtrak's smallest and least productive segment, it is also the most heavily subsidized in both absolute terms and per unit of output.

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URPA is an independent national organization devoted to research on surface passenger transportation issues. It is based in Jacksonville, Florida. URPA does not accept financial support from Amtrak or any other organization. This report was prepared by Andrew Selden, URPA Vice President, Law and Policy.