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Amtrak's Route Accounting:

Fatally Flawed, Misleading & Wrong

Executive Summary

Prepared and Written

by

The Rail Passengers Association

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Amtrak's route accounting system is catastrophically flawed. It supplies Congress with unreliable and deceptive data, and it inhibits Amtrak from configuring the national passenger train network to meet the evolving mobility needs of most Americans.

To be very clear: We do not refer to Amtrak's audited financial statements, but rather to the information technology system called Amtrak Performance Tracking (APT), which Amtrak uses to estimate the revenues and costs of each of its routes.

APT has at least four fatal flaws:

- It reports only "fully allocated costs" that do not accurately reflect underlying economics
- It does not report avoidable (or incremental) costs as required by statute
- It omits all costs of capital consumption
- It uses imprecise and inadequate data

The upshot is that APT exaggerates the cost of operating the national passenger train system, overstates the costs of expanding it, and trivializes the effects of killing it, because it fails to consider the benefits accruing to the communities it serves. In short, it radically undercuts the ability of Congress and Amtrak to plan wisely.

These are bold claims. We respectfully submit and stand by them for the following reasons.

The known knowns

Several times, Congress and the oversight agencies that advise it, including the General Accounting Office and the Office of the Inspector General, have identified fundamental problems with Amtrak's method for tracking and allocating costs to its individual routes.

In 2005, it directed the Secretary of Transportation to contract with a consultant to develop "a methodology for determining the avoidable and fully allocated costs of each Amtrak route." The Federal Railroad Administration (FRA) subsequently tasked the Volpe National Transportation Systems Center with developing the Amtrak accounting methodology.

Volpe agreed that Amtrak's previous Route Profitability System (RPS) was not an "appropriate tool for analyzing route and service adjustments," since it did not "calculate and report avoidable costs by route as required by statute."

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In response, Volpe, the FRA, and Amtrak jointly produced the Amtrak Performance Tracking System (APT), a methodology for "calculating and reporting fully allocated costs, avoidable costs, and revenues for Amtrak routes and other businesses." APT is managed by the Route Systems and Assessment Department within Amtrak's finance organization. The system utilizes about 60,000 different rules to break down the revenues and costs of the total enterprise into its component parts. Because each of these rules was manually crafted using "professional judgment," the entire system is subject to human error and manipulation.

Volpe identified another crucial flaw in the APT methodology, noting that because Amtrak's trains "function as a network and changes to individual or multiple trains likely result in changes to revenue, not just on the affected trains but on other trains, calculating the avoidable revenue is a difficult exercise. These lost revenue effects will exist to varying degrees if Amtrak routes are terminated." Yet Volpe did not attempt to fix the flaw, recommending instead that it "be considered as part of follow-on development efforts."

We have found no evidence of any such efforts.

Congress acted again in 2008, directing the Office of Inspector General (OIG) to review APT "to determine whether it produces reliable reporting on Amtrak's financial performance." The OIG's subsequent assessment was highly critical. It noted that "Amtrak's heavy reliance on cost allocation, which requires cost estimation, reduces the precision of APT's performance reporting." It also noted that Amtrak assigned only 20 percent of its costs while allocating the rest, and that "while every cost accounting system relies on allocation to a degree, other railroads assign as much as 80 percent of their costs to track their performance with precision."

OIG attributed Amtrak's lack of precision to the fact that "current business practices do not require the collection of detailed data on costs," and it judged APT's avoidable cost methodology as seriously deficient. It also noted that the allocation methodology, which was "meant to provide Amtrak and Congress with information on the financial impact associated with eliminating any route," had "significant limitations because it relies to a substantial extent on statistical estimation that: (1) is not supported by economic theory; (2) does not account for key factors such as wages and rents; and (3) is based on limited data." OIG also observed that, to its knowledge, no other rail entity used statistical estimation to identify avoidable costs.

OIG recommended that FRA "evaluate alternatives for addressing the requirement to calculate avoidable costs." FRA concurred, and responded that "while the adopted method fulfills the Congressional mandate for an avoidable costing methodology, FRA recognizes that alternative methods exist for avoidable expense estimation. Accordingly, within six months of OIG's publication of its final report, we will summarize and update our prior analysis of such alternatives."

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OIG replied that it considered the recommendation "open and unresolved until we receive FRA's revised response."

The known unknowns

In 2016, when Volpe updated its report to Congress on the APT methodology, it said that OIG had accepted each of FRA's responses, yet it provided no information on how FRA had resolved the issue.

The only reference to avoidable costs was this footnote: "The Volpe Center developed a methodology to estimate the 'avoidable costs' of each Amtrak route, with assistance from Amtrak staff, but this was superseded by a subsequent Congressional mandate under Section 208 of the Passenger Rail Investment and Improvement Act of 2008 (PRIIA) to develop service planning methodologies, and as a result the avoidable cost method was not implemented." A reasonable reading of Section 208, however, is that Congress was not rescinding its mandate to report avoidable costs. It was instead expressing its frustration that Amtrak had not implemented avoidable costing.

In any case, that explanation differed from the one that Amtrak gave OIG in 2013, when it said that its failure to implement avoidable costing resulted from "time and resource limitations."

By then, it had been five years since the directive to develop service planning methodologies.

An additional reason for the delay, given by Amtrak's finance department, is that the costs of collecting data on avoidable costs might not justify the expense of doing so. This begs the question of how we can know the value of what we don't know.

The known absurdities

The known knowns, in short, are that Congress and oversight agencies have repeatedly pressed Amtrak to create a better methodology for calculating avoidable costs, and that Amtrak has not yet done so.

The known unknowns are the avoidable costs of Amtrak's routes.

Another "known" is that the current methodology produces data that is absurd on its face.

For example, last year APT allocated more than $67,000 in maintenance of way costs for the Michigan Line to two long distance routes (Lake Shore and Capitol Limited) that do not use it; nearly $300,000 in costs for high speed maintenance of equipment to routes other than Acela; more than $430,000 in yard and equipment moves in New York and Chicago to routes that do not reach either city; nearly $600,000 of Western Division maintenance of way costs to routes in the East and Midwest; and more than $10.7

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million in track maintenance costs to state and long distance routes *but only $97,000 to the entire Northeast Corridor*. This list could be extended at length.

One of the methodology's most glaring flaws is its failure to produce reliable data on station costs.

The primary determinant of cost is size. That is, the cost of a station is determined less by the quantity of passengers arriving and departing than by the fixed costs of maintaining the structure. APT, however, counts only the number of passengers on trains. Since a large element of fixed costs is baked into that method, it can't produce an accurate estimate of avoidable costs.

What's worse: At some of Amtrak's largest and most expensive stations, APT cannot even use passenger data, since commuter agencies don't report those numbers. Instead, APT uses the number of coaches as a proxy. But commuter cars using several stations—Penn Station in New York, 30th Street Station in Philadelphia, Union Station in Washington, and Union Station in Chicago—have more than double the capacity of Amtrak's intercity coaches. This means that APT effectively gives commuter agencies a 50 percent discount on station costs. Viewed another way, it double charges Amtrak trains.

Fuel costs are another key known unknown. Both GAO and OIG have criticized Amtrak's inability to determine with any precision how much each train and route contribute to total fuel cost. Amtrak uses a formula called Diesel Power Usage Factor. Volpe does not describe how Amtrak developed this formula, or whether Amtrak has verified its accuracy with studies that compare estimated to actual consumption. In the absence of such evidence, it is questionable whether APT's fuel cost allocations reflect reality. APT's estimation of electric power usage is even more speculative and imprecise.

The known costs of not knowing

We believe that the current methodology has profound real-world consequences. By misrepresenting reality, it weakens Amtrak and jeopardizes the system's long-term prospects for serving the public's mobility needs.

The fundamental problem is that fully allocated costs are accounting fictions that neither reflect the underlying economics nor create the basis for projecting the effects of changes in service on costs and revenues.

The result is that the system skews in favor of the Northeast Corridor system, making it appear less costly than it is, while making long-distance trains appear more expensive than they are.

And this baked-in bias has led reasonable people to conclude that eliminating long-distance routes would significantly reduce the need for taxpayer funding of passenger train service.

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That is simply false. The taxpayer-funded burdens of the Northeast Corridor dwarf those of the rest of the system, where the majority of infrastructure costs are born by the railroads.

Moreover, many of the costs that APT currently allocates to long-distance routes are costs for activities shared with other routes, or for fixed overhead costs that would not change. They would be reallocated to other routes.

Congress should compel Amtrak to comply with the law and make public the financial performance of individual routes using the avoidable cost methodology developed by Volpe (or the alternative it provided to satisfy OIG's "open and unresolved issue" on avoidable costing).

Thirteen years after Congress first directed Amtrak to develop a more reliable and transparent system, we eagerly await the results. We are certain that all stakeholders—not least of all Amtrak—will benefit from the knowledge and power they deliver.

Rail Passengers Association can supply a more detailed analysis of the Amtrak Performance Tracking system, with extensive footnotes and sources, on request.