DEPARTMENT OF TRANSPORTATION

Federal Railroad Administration

[Docket No. FRA-2009-0016]

Metrics and Standards for Intercity Passenger Rail Service

AGENCY: Federal Railroad Administration (FRA), Department of Transportation (DOT).

ACTION: Response to Comments; Issuance of Metrics and Standards

SUMMARY: Section 207 of the Passenger Rail Investment and Improvement Act of 2008 (Division B of Pub. L. 110-432) (PRIIA) charged the Federal Railroad Administration (FRA) and Amtrak jointly and in consultation with other parties, with developing new or improving existing metrics and minimum standards for measuring the performance and service quality of intercity passenger train operations. In compliance with the statute, the FRA and Amtrak jointly drafted performance metrics and standards for intercity passenger rail service and, on March 13, 2009, posted a draft document, entitled ``Proposed Metrics and Standards for Intercity Passenger Rail Service," on the FRA's Web site at http://www.fra.dot.gov/us/content/2165. Simultaneously, the FRA published a notice in the Federal Register (74 FR 10983**)** requesting comments on the Proposed Metrics and Standards from the Surface Transportation Board, rail carriers over whose rail lines Amtrak trains operate, States, Amtrak employees, nonprofit employee organizations representing Amtrak employees, and groups representing Amtrak passengers. Seventeen comments were submitted to the corresponding docket (number FRA-2009-0016) at regulations.gov by the end of the comment period on March 27, 2009 and as a result, revisions have been made to the Metrics and Standards. The Final Metrics and Standards are included at the end of this document.

DATES: These metrics and standards are in effect as of May 12, 2010.

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I. Background

Section 207 of the Passenger Rail Investment and Improvement Act of 2008 (Division B of Pub. L. 110-432) (PRIIA) charged the Federal Railroad Administration (FRA) and Amtrak with jointly developing, in consultation with the Surface Transportation Board, rail carriers over whose rail lines Amtrak trains operate, States, Amtrak employees, nonprofit employee organizations representing Amtrak employees, and groups representing Amtrak passengers, as appropriate, new or improving existing metrics and minimum standards for measuring the performance and service quality of intercity passenger train operations, including cost recovery, on-time performance and minutes of delay, ridership, on-board services, stations, facilities, equipment, and other services. The statute further provided that such metrics shall, at a minimum, include the percentage of avoidable and fully allocated operating costs covered by passenger revenues on each route, ridership per train-mile operated, measures of on-time performance and delays incurred by intercity passenger trains on the rail lines of each rail carrier and, for long-distance routes, measures of connectivity with other routes in all regions currently receiving Amtrak service and the transportation needs of communities and populations that are not well-served by other forms of intercity transportation.

In compliance with the statute, the FRA and Amtrak jointly drafted performance metrics and standards for intercity passenger rail service and, on March 13, 2009, posted a draft document, entitled "Proposed Metrics and Standards for Intercity Passenger Rail Service," on the FRA's Web site at http://www.fra.dot.gov/us/content/2165. Simultaneously, the FRA published a notice in the Federal Register (74 FR 10983**)** requesting comments on the Proposed Metrics and Standards from the stakeholders named in the PRIIA. In total, seventeen comments were submitted to the corresponding docket (number FRA-2009-0016) at regulations.gov by the end of the comment period on March 27, 2009.

The FRA and Amtrak have considered the comments of the respondents to Docket No. FRA-2009-0016, and through this notice are issuing final Metrics and Standards for Intercity Passenger Rail Service. This document also contains the FRA's responses, developed with Amtrak's concurrence, to the docket comments. The changes incorporated in the Metrics and Standards published with this notice in some cases reflect clarifications of, and in others, revisions to, the March 13 proposal. A more detailed explanation of these changes is provided below.

II. Discussion of Comments and Revisions to the Proposed Metrics and Standards

A wide variety of interested parties submitted written comments to FRA in response to the Proposed Metrics and Standards. Comments were submitted to the docket from five State Departments of Transportation, three State and regional passenger railroad agencies, three freight railroads, three railroad-related associations, and one labor organization. FRA also received one comment from an individual of unknown affiliation, likely an interested private citizen, and one brief procedural comment from the Surface Transportation Board. A full list of the parties that submitted comments can be found in Annex 4.

The comments are categorized according to the four main topics identified in the Proposed Metrics and Standards document. An additional category was created to address comments and recommendations of a more general nature. Within each category, this Supplementary Information includes a comparison of the proposed with the final Metrics and Standards; a brief summary of the comments received; and a response to those comments. In many cases, a response is provided to individual comments; in other cases, where a common

theme existed across two or more comments, the comment was consolidated and a single response provided. In both types of cases, we have noted where FRA and Amtrak have made changes to the Proposed Metrics and Standards based upon the comments and recommendations received.

The FRA and Amtrak sincerely appreciate the time and effort put forward by all participants in this effort.

A. General Comments on the Proposed Metrics and Standards

1. Procedural Comments

Implementation timing of Metrics and Standards. ***Comment:*** A procedural comment addressed the timing of the implementation of the metrics and standards and expressed concern that new performance measures will be applied retroactively to quarters prior to their finalization and implementation. ***Response:*** The FRA agrees that, in all fairness, stakeholders should only be held responsible for operations conducted following implementation of these Metrics and Standards. Accordingly, FRA will not publish the first quarterly report until the required data are available for the first full quarter following the publication of these Metrics and Standards. Thus, for example, if the present document is published by between April 1, 2010, and June 30, 2010, the first full quarter of effectiveness of the Metrics and Standards would extend from July 1, 2010 through September 30, 2010; data for that quarter would be obtained and analyzed, and the report would be prepared, in the subsequent weeks; and the first quarterly report would be published as soon as possible thereafter, and no later than January 1, 2011.

In keeping with the FY 2008 and successive appropriations acts, the FRA will continue to prepare and publish its quarterly On-Time Performance report until the quarterly reporting on these Metrics and Standards begins.

Reporting periods. ***Comment:*** The same party also noted that PRIIA only requires one quarter of data to be published in each quarterly report. ***Response:*** In actuality, the statute states that "[t]he Administrator of the Federal Railroad Administration shall collect the necessary data and publish a quarterly report on the performance and service quality of intercity passenger train operations…." That is, it says that the FRA will publish a quarterly report, not that it will publish a report containing a quarter's worth of data. Moreover, it is the FRA's position that for the metrics to be meaningful, it is necessary to collect and/or publish data for a variety of periods. For example, depending on the metric and the availability of comparable data, a typical quarterly report might show data for one or more of the following: (a) the quarter being reported upon, (b) the prior quarter (in the case of on-time performance data), (c) the four quarters ending with the quarter being reported upon, (d) the eight quarters ending with the quarter being reported upon (for rolling eight-quarter averages), and (e) the same periods detailed above ending one year previously.

Sufficiency of comment period. ***Comment:*** The Docket received two comments expressing concern with the stakeholder consultation that took place in developing the Proposed Metrics and Standards. In particular, the Transport Workers Union of America (TWU) stated that the 14-day period provided for submitting comments to the docket was inadequate and that any revisions to the Proposed Metrics and Standards document should incorporate a longer comment period (at least 30 days) with increased stakeholder involvement. ***Response:*** The FRA understands that some stakeholders would have liked more time to comment on the Proposed Metrics and Standards. However, the FRA and Amtrak have seriously considered all the

comments submitted and believe that the Final Metrics and Standards document reflects a marked improvement over the original proposal. In addition, subsequent to the enactment of the PRIIA, the American Recovery and Reinvestment Act of 2009 ("Recovery Act") allocated $8 billion in economic stimulus funding to a High-Speed Intercity Passenger Rail (HSIPR) investment program. As described in the strategic plan and guidance documents published by the FRA pursuant to the Recovery Act (and available at http://www.fra.dot.gov/us/content/31 and http://www.fra.dot.gov/us/content/2243, respectively), various partnerships and implementing agreements among the stakeholders will be prerequisite to achievement of the HSIPR program goals in most corridors. Essential to such implementing agreements will be a mutual knowledge of the operational performance expectations of the various parties. As benchmarks for many of these expectations will be established in these Metrics and Standards, their timely publication is essential to the early completion of State/rail owner/passenger operator negotiations and thus, to the speedy implementation of the HSIPR program.

Accordingly, the Metrics and Standards presented at the end of this notice represent the performance measures that the FRA and Amtrak will implement, and on which the FRA will base its quarterly report to Congress. The Metrics and Standards themselves identify specific topics within the Other Service Quality and Public Benefits categories that will require further analysis, proposals, and public comment.

2. Comments Regarding Penalties

Enforcement and penalties. ***Comment:*** Several parties submitted concerns regarding the enforcement of standards and the penalties for not meeting the standards. The TWU and multiple State agencies requested further explanation on how the metrics will be applied to routes as well as the outcomes for meeting and for not meeting the standards. In particular, the TWU requested clarification regarding the enforcement mechanism for each standard as well as the name of the agency responsible for enforcement. It also requested details on the development of guidance for enforcement procedures. ***Response:*** As explained in the PRIIA, the Surface Transportation Board (STB) is the primary enforcement body of the standards, making them an appropriate entity to develop and communicate enforcement protocols.[1] As such, the FRA believes that the enforcement procedures are properly separate from these metrics and standards. The FRA's only enforcement responsibility pertains to performance progress analysis of the worst-performing long-distance routes as provided for in Section 210 of PRIIA (49 U.S.C. 24710). None of these routes is currently State-supported.

Susceptibility of routes to enforcement. ***Comment:*** **The California Department of Transportation (**Caltrans) questioned whether Amtrak routes themselves can be penalized for not meeting performance standards. ***Response:*** Under Section 213 of PRIIA,[2] penalties for infraction of the standards are not intended for direct application to Amtrak routes, but rather to host rail carriers under specified circumstances. PRIIA Section 210 does give the FRA authority

[1] As explained in Section 213 of PRIIA, if service quality fails to meet the established standards for 2 consecutive calendar quarters, the STB may (and in some circumstances must) initiate an investigation to determine whether and to what extent this failure is due to causes that could reasonably be addressed by the host rail carrier or by Amtrak or other intercity passenger rail operators. If it determines that the failure to meet the standards is attributable to a rail carrier's failure to provide preference to Amtrak over freight transportation, it may award damages against the host rail carrier, which the carrier shall remit either to Amtrak or to an entity for which Amtrak operates intercity passenger rail service as the STB deems appropriate.

[2] Section 213 describes Surface Transportation Board responsibilities for enforcement of the Metrics and Standards, particularly as they regard host rail carriers.

to withhold non-safety-related funds from a long-distance route that is among the worst performers under these Metrics and Standards, but only if that route fails to adhere to an Amtrak-devised performance improvement plan, and only after mandated notifications and an opportunity for Amtrak to request a hearing.

Effects of the standards on State-supported services. ***Comment:*** Washington State Department of Transportation (WSDOT) expressed concern that States funding Amtrak services could be penalized for underperforming routes and that such penalties could discourage future State support. WSDOT also inquired whether "credits" can be earned for routes that exceed performance standards. ***Response:*** PRIIA includes no provision imposing consequences or penalties on States, in their capacity as sponsors or subsidizers of intercity passenger services, if those routes fail to meet the standards specified in the Metrics and Standards. Similarly, PRIIA makes no provision for the awarding of credits for routes exceeding the standards. However, other benefits naturally accrue to States, Amtrak, and host railroads for outstanding performance, including lower-cost and/or higher-revenue operations, as well as heavier rail traffic volumes and consequent public benefits. Furthermore, the States, Amtrak, and host freight railroads are free to build direct incentives into their agreements, and in some cases have already done so.

Uses of the performance measures. ***Comment:*** The Caltrans requested clarification on how the performance measures will affect Amtrak's and the FRA's decision-making authority on State-supported routes. Caltrans also asked whether the Proposed Metrics and Standards were designed to compare routes against their own past performance or against those of other routes. ***Response:*** The Metrics and Standards are designed to allow for both historical and cross-sectional analysis and comparisons. In addition to their general use and utility, PRIIA mandates that Amtrak use them in evaluating its long-distance routes (Section 210) and in developing a plan to improve on-board service (Section 222), and that FRA use them in evaluating bids under the Alternate Passenger Rail Service Pilot Program (Section 214).

3. Concerns with Metrics and Standards Data

Independence and data integrity. ***Comment:*** One commenter was concerned about the lack of independence with respect to the gathering of data for and the calculation of the Proposed Metrics and Standards. In particular, the commenter suggested that insufficient separation exists between Amtrak personnel and the data used for these performance measures. Another party stated that sole use of Amtrak-provided operational and performance data is not justified in PRIIA. ***Response:*** PRIIA, the statutory basis for these performance measures, directly incorporates Amtrak into their creation by stating that FRA and Amtrak "shall jointly" develop the Metrics and Standards. It establishes no completely independent agency or funding mechanism for gathering and analyzing the relevant data. Thus, the statute affords no scope or basis for action regarding this comment.

Fairness. ***Comment:*** Two railroads expressed misgivings about the fundamental fairness of the performance measures. One railroad indicated that the proposed performance measures were biased towards Amtrak and provided insufficient improvements on existing measures. The other cited what it said were fairness issues with tying performance penalties to Amtrak's schedules, which it argued are sometimes unrealistic. ***Response:*** The FRA and Amtrak aimed to encourage cooperation between Amtrak and the host railroads. For example, Annex 1 contemplates that Amtrak and its individual host railroads may agree that during a specific quarter, a specific train may incur more delay than usual, or may have an adjustment made to its public schedule, due to a major maintenance and construction project. Scheduling remains

primarily a topic for collaboration between Amtrak, its host railroads, and any sponsoring States, subject to the indirect constraints of the Effective Speed standard for OTP.

4. Effects of the Metrics and Standards

Administrative burdens. ***Comment:*** Several freight railroads stated that the proposed performance measures present an administrative burden and will require significant operational changes to make current Amtrak schedules realistic. They went on to assert that the Proposed Metrics and Standards will increase the cost of hosting Amtrak trains and noted that those costs may need to be passed on to Amtrak. ***Response:*** Amtrak and its host railroads each have their own train performance databases that often utilize different metrics or different definitions for the same metrics. As train performance data thus lacks uniformity among railroads, additional resources may be necessary to achieve comparable data. Similarly, the new All-Stations OTP will increase the number of OTP data points that may be subject to dispute between Amtrak and its hosts. Conversely, the heightened attention under PRIIA to performance measures on the part of both Amtrak and host railroads may lead to operational improvements that can result in lower costs and/or higher revenues to Amtrak and increased incentive payments to host railroads, mitigating administrative costs that stem from the Metrics and Standards. The FRA encourages Amtrak and host railroads to align metrics within their respective databases where possible and encourages Amtrak to continue with efforts to enhance train delay data through automation.

Effects on Amtrak/host relationships. ***Comment:*** Norfolk Southern Corp. (NS) stated that the proposed performance measures will hinder its working relationship with Amtrak, while the Association of American Railroads (AAR) and CSX Transportation, Inc. (CSX) said the Proposed Metrics and Standards may dissuade freight host railroads from agreeing to new Amtrak services. ***Response:*** The Metrics and Standards are not intended to deter future Amtrak service; rather they are to lead to improvements in whatever Amtrak service is offered. Based on the collaborative approach described in Annex 2, and on the freight railroads' long record of passenger operations, the FRA and Amtrak expect that all stakeholders will work closely together to implement this Congressional mandate efficiently and effectively, and in so doing minimize the burdens and maximize the benefits felt by each other.

5. Relationship to State Agency/Amtrak Contracts and Standards

Development of Metrics and Standards for State-supported services. ***Comment.*** Washington State Department of Transportation (WSDOT) made the case that States with State-supported services and Amtrak should be responsible for developing the Proposed Metrics and Standards in a process supported by a Federal appeals forum. ***Response:*** States have a role in the process of defining the Metrics and Standards as well as a vital interest in the end product of this process. However, Section 207 of PRIIA mandates that Amtrak and the FRA act as the lead parties in developing these performance measures.

Effect of Metrics and Standards on contracts between the States and Amtrak. ***Comment:*** A number of State agencies expressed concern regarding the effect the Proposed Metrics and Standards might have on their intercity passenger rail agreements. In particular, several agencies stated that the Proposed Metrics and Standards should not replace State operating and performance contracts with Amtrak and other railroads. State agencies argued for the continued right to negotiate their own standards for State-supported services with rail carriers and to perform and use their own performance analyses. ***Comment:*** These Final Metrics and Standards are not intended to (a) alter or replace operating and performance agreements between States and Amtrak; (b) hinder States or Amtrak from negotiating standards

with each other, or from incorporating an appeals process into their agreements; or (c) limit the analytical tools employed by States or other stakeholders.

6. Relationship to agreements between Amtrak and host railroads.

Comment: Metro-North sought confirmation that the Metrics and Standards will not supersede any Amtrak-host railroad OTP agreements. ***Response:*** Section 207 of PRIIA states that, "to the extent practicable, Amtrak and its host rail carriers shall incorporate the metrics and standards . . . into their access and service agreements."

7. Metrics and Standards, PRIIA, and ARRA

Comment: State agencies were also concerned with the possible interrelationships between the Proposed Metrics and Standards and both the American Recovery and Reinvestment Act of 2009 (ARRA) and other PRIIA-defined initiatives. Caltrans, in particular, requested clarification as to whether grant proposals under the FRA's High-Speed Intercity Passenger Rail (HSIPR) program will be evaluated based on a project's ability to improve performance measures or on a route's previous ability to meet performance standards. Also, assurance was sought that projects requesting Federal funding will only be evaluated against applicable performance measures. The Capital Corridor Joint Powers Authority (CCJPA) indicated that high performing routes will be at a disadvantage when being considered for HSIPR funding. CCJPA also noted that non-Federal capital funding sources and traffic volume are not discussed as evaluation criteria.

Response: In response to these comments about the relationship of the Metrics and Standards to other PRIIA provisions and the HSIPR program, it is worth noting that:

1) The HSIPR program involves a merit-based evaluation process as described in Section 5 of the Interim Program Guidance, available at http://www.fra.dot.gov/us/content/2243.

2) In the absence of agreed Metrics and Standards at the time the Interim Program Guidance was published, the review criteria in Section 5 of the Guidance adopted generalized topics reflecting the underlying purposes of PRIIA Section 207—for example, "increased on-time performance."

3) The application and review process for the first round of HSIPR funding (pursuant to the Interim Program Guidance published in the Federal Register on June 23, 2009) reached its conclusion on January 28, 2010, with the announcement of the first recipients selected to receive grant funding. As these Final Metrics and Standards had not been published at that time, they could not be applied to the first HSIPR funding competition.

4) The applicability of these Final Metrics and Standards to the application, review, and/or selection processes in future solicitations under the HSIPR program would be clarified in the HSIPR notices announcing such solicitations.

5) The above points do not preclude the FRA from incorporating, at its discretion, these Final Metrics and Standards in grant award negotiations with any entities selected to receive HSIPR grants.

B. Comments on Financial and Operating Measures

1. Summary of the Proposal and of the Final Metrics and Standards.

The Proposed Metrics and Standards included five different metrics under the Financial/Operating category: (1) Percent of Short-Term Avoidable Operating Cost Covered by Passenger-Related Revenue (excluding capital charges); (2) Percent of Fully Allocated Operating Cost Covered by Passenger-Related Revenue (excluding capital charges); (3) Long-term Avoidable Operating Loss per Passenger Mile (excluding capital charges); (4) Passenger-Miles per Train-Mile; and (5) Adjusted (Loss)[3] per passenger-mile. The first four of these were to be reported at the route level and the last, at the system level. For all five, the proposed standard was to be continuous year-over-year improvement.

In these Final Metrics and Standards, the same measures are retained; all financial measures will be calculated both with and without State subsidies included in revenue. Continuous year-over-year improvement will be reported and assessed on a moving two-year (eight-quarter) average basis.

2. Comments and Responses

a. Additional Measures Needed

Comment: The Midwest High-Speed Rail Association (MHSRA) recommended incorporating measures on load factor and passenger and ticket revenue by origin-destination. It also proposed adding a metric and standard for passengers declined rail service due to lack of available space. ***Response:*** The metrics proposed by MHSRA are potentially useful for a number of purposes. However, they are very detailed, involve origin-destination data that is typically proprietary to common carriers, and (in the case of passengers denied rail service) involve steep challenges of measurement, including the elimination of duplicate inquiries by a single passenger for the same space. For all these reasons, these measures would exceed the scope and purpose of Section 207 of PRIIA and add significant complexities to the quarterly report. Therefore, these new measures are not included in the final Metrics and Standards.

b. Calculations of Financial Measures

The Docket received a number of comments regarding the process for calculating the various financial measures.

Treatment of State operating subsidies. ***Comment:*** A number of State agencies called for calculating the route-by-route financial measures both with and without State contributions included in revenue, in order to better illustrate Amtrak's operating losses before receiving State funds. ***Response:*** Numerous Amtrak routes are supported by State contributions, which—while indispensable to support continuing operations—tend to obscure an analysis of the inherent efficiency of the routes in question. It would be useful, feasible, and not unduly burdensome to report cost recovery and operating loss per passenger-mile calculations both with and without State contributions, and the Metrics and Standards now incorporate this change.

Treatment of fully-allocated costs. ***Comment:*** CCJPA questioned the fairness of the proposed fully allocated cost calculation, in particular, the fact that while overhead is allocated to State-supported services, revenues from Amtrak's ancillary businesses are not allocated in a similar manner. ***Response:*** A certain amount of Amtrak's overhead is related to each of Amtrak's routes and ancillary business. Amtrak's new fully allocated cost methodology allocates system-wide costs, such as General and Administrative and other overhead costs, to all

[3] The definition of Adjusted (Loss) is: Net Operating Loss (before net interest expense), less Depreciation, Other Post-Employment Benefits (OPEB's) and project costs covered by capital funding.

of Amtrak's routes and businesses in a logical and equitable manner. CCJPA is correct that the fully allocated cost methodology does not simply spread revenues earned from Amtrak's operations among all routes, but assigns them to the routes and ancillary businesses with which they are associated. Attributing both costs and revenues to the routes and ancillary businesses to which they are related allows Amtrak to assess the performance of each individual route or business. Additional detail on Amtrak's fully allocated cost methodology is provided in the FRA's and Volpe Center's report entitled *Methodology for Determining the Avoidable and Fully Allocated Costs of Amtrak Routes*, available at http://www.fra.dot.gov/Pages/1996.shtml under "Intercity Passenger Rail Cost Analysis."

Accuracy of Amtrak's route accounting. ***Comment:*** The Wisconsin Department of Transportation (WisDOT) expressed concerns with the accuracy of Amtrak's new cost accounting system after experiencing perceived accuracy issues under the previous system. ***Response:*** Amtrak is in the process of implementing a new cost accounting system, called Amtrak Performance Tracking (APT), which will be used to calculate Short-Term Avoidable Operating Costs, Long-Term Avoidable Operating Costs, and Fully Allocated Costs for each route on a monthly basis. APT was designed to enhance transparency and also to assign costs more fairly, accurately, and consistently. All topics related to APT are addressed in great detail in the *Methodology* report referred to above.

Effects of service changes on fully-allocated costs. ***Comment:*** CCJPA also stated that fully allocated costs will need to be recalculated if a State discontinues a service. ***Response:*** That statement is accurate, but presents no challenges since Amtrak's new system will calculate the fully allocated costs of each Amtrak route monthly.

Equipment ownership. ***Comment:*** CCJPA requested that the Short-Term Avoidable Operating Cost calculation be defined in such a way that it can determine the effects of owning rail equipment. ***Response:*** Again, the FRA's and Volpe Center's forthcoming report provides a detailed explanation on how Fully-Allocated and Avoidable Operating Costs are estimated in Amtrak's new accounting system.

c. Continuous Improvement Measure

Comment: Both NS and Caltrans disagreed with the continuous year-over-year improvement standard proposed for certain metrics. Caltrans observed that such a standard serves to penalize high performing routes, and that—with regard to the financial measures—certain expenses, like fuel, cannot be controlled. ***Response:*** The FRA and Amtrak considered these comments in revising the Metrics and Standards. Continuous improvement standards will be based on an eight-quarter rolling average instead of a single quarter in order to smooth out the effects of transitory events. The Final Metrics and Standards also will apply an inflation adjustment to the dollar-denominated data from prior years used in multi-year rolling averages, to make them comparable with current-year data. With regard to high performing routes, as mentioned above, such routes will derive direct benefits from their high performance, independent of these performance measures.

d. Financial Measures Unsuitable for State Needs

Comment: One stakeholder, CCJPA, argued that the financial performance measures did not meet the needs of the States. CCJPA stated that the proposed metrics are not flexible enough to pertain to their contracts with California, Amtrak, and other railroads (e.g., CCJPA's fixed price annual contract with Amtrak). For that reason, it maintained that the proposed financial

standards should not supersede existing agreed-upon methods for calculating and reporting train performance at the State level. ***Response:*** As stated above under "Effect on State Agency Contracts and Standards," the Metrics and Standards are not intended to circumscribe the flexibility of the States and Amtrak to arrive at mutually satisfactory agreements.

e. Mail Revenue

Comment: The National Association of Railroad Passengers (NARP) noted that although mail revenue is a component of a route's total revenue calculation, Amtrak discontinued its mail transporting services in 2004. NARP recommended that Amtrak reexamine carrying mail on its trains to improve its financial performance. ***Response:*** NARP's comment relates to business decisions of and between Amtrak and the U.S. Postal Service and does not affect the definition or implementation of the Metrics and Standards.

C. Measures of On-Time Performance (OTP) and Train Delays

1. Summary of the Proposal and of the Final Metrics and Standards

The Proposed Metrics and Standards dealt separately with OTP and train delays. A route's OTP was to be discerned on the basis of three tests (only two tests until FY 2010): 1) Change in Effective Speed,[4] 2) percent on time at the endpoint (Endpoint OTP), and 3) percent on time at all stations served (All-Stations OTP). For all routes, effective speed was to be no worse than in the baseline year, FY 2007. The Proposed Metrics and Standards implied that the effective speed for each quarter was to match or better that for all of FY 2007.

OTP under the final standard is to be discerned on the basis of three tests (only two tests until FY 2012): 1) Change in Effective Speed, 2) percent on time at the endpoint (Endpoint OTP), and 3) percent on time at all stations served (All-Stations OTP) (Effective as of FY 2012). The final standard makes clear that the effective speed is to be calculated on a rolling four-quarter basis and compared with a fixed FY 2008 baseline.

The standard for percent on time was to vary by route type and by year, as follows:

Route Type	Percent on time in first year	Percent on time in fifth year
Acela	90%	95%
Other Northeast Corridor (NEC) routes	85%	90%
All other corridors	80%	90%
Long-distance routes	80%	85%

The same OTP standards are to be applied to both Endpoint and All-Stations OTP, although the tolerances for determining whether a train was late would differ between the two metrics. The OTP percentages above have been retained intact in the Final Metrics and Standards.

The following table compares the original proposal for Train Delays with that contained in the final document:

[4] Effective speed is defined as a train's mileage, divided by the sum of (a) the scheduled end-to-end running time plus (b) the average endpoint terminal lateness.

Metric (Minutes per 10,000 Train-Miles)	Original Proposal	Final Metrics and Standards
Off Northeast Corridor		
Amtrak-responsible delays	250	325
Host-responsible delays	700	900
Cause of delay shown for information?	Yes	Yes

Metric (Minutes per 10,000 Train-Miles)	Original Proposal		Final Metrics and Standards	
On Northeast Corridor				
	Acela	**All other services**	**Acela**	**All other services**
Total train delays	-	-	265	475
Infrastructure delays	104	123	-	-
Passenger and Commuter Train Interference	67	116	-	-
Third-party delays	37	44	-	-
All other delays	76	187	-	-
Cause of delay shown for information?	No		Yes	

As indicated in the table, the delay allowances have been raised and (in the case of the NEC) simplified from those originally proposed. For both off- and on-NEC performance, further information on causes of delay will be provided in the quarterly reports (although not part of the standards). Annex 3 provides the rationale for the chosen allowances.

In an important change from the original proposal, Annex 1 provides a mechanism for collaboration between Amtrak and its host railroads in adjusting published timetables and delay allowances under certain circumstances involving major planned construction and maintenance efforts.

2. Comments and Responses

The largest number of comments on the Proposed Metrics and Standards concerned the measures for on-time performance and train delays.

a. General Comments on OTP

Which routes are covered? ***Comment:*** CCJPA inquired which Amtrak routes would be subject to the Proposed Metrics and Standards and asserted that corridor services are more sensitive to OTP than long-distance trains. ***Response:*** PRIIA draws no distinction among the types of routes to be evaluated; thus all intercity passenger rail routes are covered by the Metrics and Standards, irrespective of the source(s) and methods by which they are funded, their relative sensitivity to the metrics, or the order in which they were established as part of the Amtrak system.

State-supported routes. ***Comment:*** WSDOT recommended adding "State-Supported Routes" to the list of Amtrak service types in the report to explicitly highlight the fact that they are covered by the Metrics and Standards. ***Response:*** Isolating State-supported routes as a

service type for these Metrics and Standards would produce insufficient benefits to justify the added complexity. For example, some corridor routes have both State-supported and non-State-supported trains; and annual changes in Amtrak-State contracts could produce an ever-shifting set of State-supported routes, thus detracting from year-to-year comparability. Finally, the number of non-State supported corridors is very low, and has shown signs of diminishing over the long term, thus limiting the utility of isolating these few corridors as a separate service type.

"Host railroad." ***Comment:*** Metro-North asked for clarification of the definition of a host railroad. ***Response:*** Host railroads are all entities that own and/or operate the track over which Amtrak operates. Host railroads include not only freight railroads, but also all commuter railroads and State or regional agencies that own track used in intercity passenger service. Amtrak itself serves as a host railroad when operating over its own infrastructure. Train delays will be identified by route by host railroad for each host railroad that Amtrak utilizes for an appreciable distance (15 miles or more).

Effects of the OTP standards. ***Comment:*** A few parties submitting comments expressed concern about the potential effect (or lack of effect) of the OTP standards. BNSF argued that the Proposed Metrics and Standards will not substantially improve Amtrak OTP. The Maryland Transit Administration and the Southern California Regional Rail Authority (SCRRA) both were concerned that Amtrak OTP improvements might negatively impact commuter railroads and commented that such OTP improvements should not come at the expense of commuter rail operations. ***Response:*** PRIIA Section 207 is a promising sign of increasing national attention to the reliability of Amtrak's service, and the OTP provisions of the Metrics and Standards constitute complementary performance indicators addressing the multiple facets of reliable service. Consequently, there is every reason to expect further improvements in Amtrak's OTP—especially when viewed against the backdrop of the progress in OTP that occurred in FY 2009 over FY 2008, as well as the ongoing Federal commitment to intercity passenger rail investments evidenced in the HSIPR program. The Metrics and Standards are not intended to disturb existing mechanisms that safeguard the integrity of commuter rail operations, such as agreements among commuter authorities, commuter rail operators, and railroads hosting commuter service.

Suitability of Amtrak schedules. ***Comment:*** Several freight host railroads indicated that Amtrak's current schedules are not suitable for and, in fact, cannot support reliable OTP. To meet the performance standards, these respondents asserted, the schedules will need to be revised using computer modeling techniques that account for current traffic and seasonal patterns. For instance, BNSF stated that Amtrak's current schedules are based on pure run time, not on Amtrak's ability to meet on-time arrival standards; and that longer-distance trains need to build additional recovery time into their schedules since they encounter a greater number of random delays. ***Response:*** The setting of schedules is primarily a matter between Amtrak, its host railroads, and any sponsoring States; scheduled train timings fall within the scope of the Metrics and Standards only to the extent that they contribute, in combination with endpoint terminal delays, to an increase in effective speed over the baseline. While modern scientific techniques (e.g., train performance calculators, simulations of route performance given fixed passenger schedules and random arrivals of freight trains) are desirable and encouraged, —as they can assist the two parties and other stakeholders in developing reasonable and workable schedules,—there is no substitute for teamwork and goodwill among the parties. Indeed, Annex 2 addresses that very topic, by encouraging the stakeholders to work through these issues in a collaborative manner. That the freight railroad industry devoted significant attention to its

docket responses on the Metrics and Standards indicates that the industry understands their importance and desires to collaborate in their successful implementation.

OTP and infrastructure improvements. ***Comment:*** Freight railroad and State agency respondents wondered whether and how the Proposed Metrics and Standards will deal with the need for ongoing and future rail infrastructure improvements. Freight railroads argued that significant infrastructure improvements will be needed (with Federal funding) to achieve reliable OTP results given current Amtrak schedules. One freight railroad, CSX, specifically tied the Effective Speed measure back to the issue of necessary rail capital investments. ***Response:*** These Metrics and Standard will yield increasingly robust OTP and delay reports that will provide a valuable data resource to Amtrak, States, and host railroads in pinpointing the routes that are most in need of improvement, and in isolating the causes of the most serious delays on each route. In that way, the Metrics and Standards will assist all parties in identifying the most effective and efficient ways to improve intercity passenger rail service. In turn, that knowledge will help to provide a basis for investments by, and partnerships among, the various stakeholders, and will assist them in prioritizing capital funds from available sources.

Adjustments for major construction and maintenance. ***Comment:*** Several State agencies recommended incorporating a mechanism into the OTP standards to adjust for periods when track work is being performed. For example, WSDOT recommended dismissing performance penalties that stem from delays occasioned by track work. ***Response:*** Annex 1 to the Metrics and Standards provides guidelines under which stakeholders can work together to temporarily adjust delay allowances and public Amtrak schedules during planned periods of major maintenance and construction.

Automation. ***Comment:*** Several stakeholders were concerned about the data collection process for OTP data and stated that more automated and technically advanced data collection mechanisms are needed in order to reliably track OTP. They also noted that such mechanisms would take time to implement. ***Response:*** The FRA agrees that more automated data collection mechanisms could be beneficial to the OTP reporting process and acknowledges that such improvements will take time for development, testing, and deployment. Amtrak has stated that it will investigate the possibility of integrating OTP data gathering capabilities with new technologies that it may be implementing (e.g. GPS tracking systems); in that regard, Annex 2 mentions "potential automation of station arrival and departure time recording."

Data availability. ***Comment:*** One commenter stated that data collection methods need to be developed for the Effective Speed and All-Stations OTP measures. ***Response:*** Amtrak has assured the FRA that it is currently capable of providing data for both Effective Speed and All-Stations OTP. Furthermore, the FRA has been successfully making use of Amtrak data to calculate effective speed in seven quarterly OTP reports to Congress (available at http://www.fra.dot.gov/us/content/1996),

b. Comments on Effective Speed Measure

Several concerns emerged regarding the proposed Effective Speed measure.

Rationale for an "effective speed" test. ***Comment:*** Several freight host railroads argued that the Effective Speed measure has limited applicability to OTP. BNSF argued that the baseline set for the standard was never agreed upon and the AAR stated that the associated schedules are unrealistic. For this reason, it expressed its opposition to using the measure to guard against lengthened schedules. AAR claimed that train speed is not a consideration for

passengers choosing to travel by train, while CSX maintained that the Effective Speed metric was superfluous since passengers are most concerned with on-time arrivals. Caltrans stated that the metric cannot be used to assess the possible speed of a route.

Response: The FRA and Amtrak strongly believe that the preservation of the "effective speed" test fulfills a number of purposes simultaneously:

- It serves as a bulwark against the "schedule creep" that has seen actual travel times experienced by passengers on many—but not all—American passenger rail routes worsen significantly over the past half-century.[5]
- Similarly, by underlining the importance of shortening (or at least preventing deterioration in) door-to-door travel times, it emphasizes the key role of the rail mode in serving the public convenience and necessity and accords in principle with the high-speed emphasis of the Administration as described in its Strategic Plan for high-speed rail.[6] To solve OTP challenges simply by lengthening schedules does not comport with prevailing Federal policy toward intercity passenger rail.
- Finally, as is the case with all-stations OTP, it emphasizes that the expeditious and reliable transportation of **all** intercity rail passengers on **all** routes—regardless of the region, the population density, and the type of rail service—is an important goal of both the FRA and Amtrak. In particular, in view of the thousands of city-pair markets and diverse travel purposes served by long-distance trains, the FRA and Amtrak cannot agree with some respondents that OTP is more important on some types of routes than on others; nor can it accept that door-to-door travel times are irrelevant to rail passengers.

Baseline. ***Comment:*** Multiple stakeholders stated that the proposed baseline for the Effective Speed measure is not adequate and/or reasonable. The Virginia Department of Transportation (VDOT) stated that the baseline should be derived from comprehensive route and consist analyses. ***Response:*** The FY 2007 baseline was historically and logically based, as FY 2007 was the fiscal year immediately preceding the enactment of the Consolidated Appropriations Act, 2008 (Public Law 110-161, December 2007); it was this Act that first expressed the Congressional mandate for the Secretary of Transportation to establish OTP standards for Amtrak routes, and to publish a quarterly report on each route's OTP. The FRA and Amtrak believe, however, that the PRIIA (enacted October 16, 2008) represents a more enduring manifestation of Congressional intent, as it is a multi-year authorization rather than an appropriation. Accordingly, the baseline year for Effective Speed has been changed to FY 2008, the last full Fiscal Year prior to the enactment of PRIIA Section 207. While subject to certain refinements in calculation methods,[7] the FY 2008 baseline must be regarded as representing most closely the prevailing Congressional intent as expressed in the PRIIA.

[5] Some of these variations reflect changes in routes and in stopping patterns, often caused by the reduction in service from many trains to one train daily in each direction on most long-distance routes.
[6] The Strategic Plan is available at http://www.fra.dot.gov/us/content/31.
[7] For the reports to Congress, the FRA calculated the baseline indirectly, adding (for each route) the scheduled trip time to the average minutes late over the course of FY 2007. Amtrak has more direct methods of calculating effective speed from its operating data, which will be implemented for purposes of the quarterly Metrics and Standards reports.

Seasonality. ***Comment:*** AAR and several freight host railroads stated that the baseline does not account for seasonal differences in rail operations or for the expected increase in freight-rail demand. BNSF, in particular, commented that late Amtrak trains during periods of heavy freight traffic are the result of congestion and that Amtrak should respond to such congestion in the same manner as the freight railroads do by increasing its run times during such periods. BNSF and AAR recommended that the effective speed baseline be adjusted seasonally to account for seasonal variations in rail operations.

Response: The baseline covers an entire fiscal year, thereby accounting for a full four-season spectrum of traffic and climate conditions. The FRA agrees that the result for a single quarter could potentially reflect a seasonal skew, and has therefore adjusted the Metrics and Standards to use a four-quarter rolling average instead. However, to directly adjust the effective speed (or any other OTP) standard on a seasonal basis would be undesirable in that it would contradict one of the basic tenets and inherent advantages of passenger rail transportation—consistency of schedules and performance in all seasons.

Connection between effective speed and delays. ***Comment:*** NS stated that Effective Speed has no direct relation to delays or to the causes of delays. ***Response:*** Effective Speed is indeed related to delays since it incorporates the average lateness of trains, which results from the delays that trains encounter.

Deletion of effective speed measure. ***Comment:*** One respondent recommended simply eliminating Effective Speed and proposed substituting in its place the average running speed of individual trains. ***Response:*** The FRA and Amtrak perceive no reason to substitute, for effective speed, a measure that does not incorporate the effects of both OTP and scheduled train timings.

c. Comments on Endpoint OTP Measure

Despite a number of issues raised by respondents and discussed below, the FRA and Amtrak maintain that the Endpoint OTP measures are useful. For example, Performance Improvement Programs resulting from OTP scores that fall below the standard will act as catalysts for identifying operational improvements and near-term infrastructure projects in which to invest.

Schedules and recovery time. ***Comment:*** VDOT recommended utilizing the FRA's methodology for calculating recovery time when adjusting schedules. ***Response:*** As mentioned above under "Suitability of Amtrak schedules," schedule-setting *per se* remains primarily the responsibility of Amtrak, the host railroads, and a route's sponsoring State (if any). The FRA's recovery time calculation, included in the guidance manual "Railroad Corridor Transportation Plans" (http://www.fra.dot.gov/us/content/ 1415), is one tool that can be used to help assess the need for adjusted schedules. However, the FRA and Amtrak realize that the model's applicability varies among actual operating environments, which may necessitate significant adjustments to the calculations.

Endpoint OTP Tolerances. ***Comment:*** Related to the issue of schedule is that of OTP tolerances. CSX and the AAR commented that on-time arrival tolerances associated with the long-distance trains are insufficient for their route length. As described in the Proposed Metrics and Standards, a train is considered "late" if it arrives at its endpoint terminal more than 10 minutes after its scheduled arrival time for trips up to 250 miles; 15 minutes for trips 251-350 miles; 20 minutes for trips 351-450 miles; 25 minutes for trips 451-550 miles; and 30 minutes for trips of 551 or more miles; except that all Acela trips are considered late if they arrive at their

endpoint terminal more than 10 minutes after their scheduled arrival time. ***Response:*** Long-distance trains already have more recovery time built into their schedules than corridor-type services,[8] which compensates for on-time arrival tolerances being capped at 551 or more miles. Thus, we are not persuaded of the need to change the tolerances.

Endpoint OTP and freight traffic levels. ***Comment:*** The AAR also stated that, historically, Amtrak OTP levels above 80 percent have occurred during periods of decreased demand for freight rail. ***Response:*** By definition, to be "reliable," the quality of passenger rail service should be consistent over time, from season to season and year to year, regardless of the demand levels for freight and commuter service. If, in future periods of freight traffic growth, the application of these Metrics and Standards reveals negative trends, Section 207 will have served an important purpose: the identification of routes needing improvement to restore operating consistency. Once that identification is made, focused studies and Performance Improvement Programs can reveal specific remedies and assist stakeholders in setting priorities and seeking funding.

Limitations and proposed changes to Endpoint OTP. ***Comment:*** Some respondents pointed to limitations of, and possible changes to, the Endpoint OTP metric. CSX, for example, observed that Endpoint OTP does not reveal Amtrak's performance on individual host railroads or the causes of substandard OTP. As such, CSX requested that Endpoint OTP be deemed an insufficient trigger for STB investigations.

Response: Section 213 of PRIIA mandates that percent on-time standards be used by the STB as a basis for initiating investigations on Amtrak's service: "If [among other possible reasons] the on-time performance [i.e., Endpoint OTP] averages less than 80- percent for two calendar quarters," the STB's investigative discretion or mandate takes effect. Each of the OTP metrics, by itself, reveals only one aspect of service reliability. Train delay data by cause and by host railroad has been incorporated into the Metrics and Standards to complement the Endpoint OTP figures, which only illustrate the frequency of lateness.

Endpoint OTP and host railroad performance. ***Comment:*** AAR recommended reporting Endpoint OTP by host railroad while CSX and NS recommended using host railroads' contract performance with Amtrak instead. ***Response:*** As noted above, individual host railroad performance will be illustrated through the train delay metrics. Thus, the FRA does not believe that it is necessary to also report Endpoint OTP by host railroad. (Nor would it be consistently meaningful: many routes make use of more than one host, and Endpoint OTP says nothing about responsibilities for late delivery of trains at intermediate junctions between hosts.) In response to the comments by CSX and NS, the standards embedded in host railroad contracts are not suitable as general performance measures for the purposes of this effort as contracts differ among the host railroads, significantly limiting their comparability. Furthermore, as mentioned above, Congress directed Amtrak and the host railroads to adopt these Metrics and Standards in their access and service agreements—not the reverse.

Proposal for site-specific standard-setting. ***Comment:*** Caltrans stated that the performance standards should be based on current track conditions and track improvements that will realistically occur by 2013. ***Response:*** Although useful, this concept raises practical

[8] For example, trains in the San Joaquin corridor between Bakersfield and Oakland, CA (316 miles) have approximately 40 minutes of recovery time and other adjustments incorporated into their schedules. The Auto Train between Sanford, FL and Lorton, VA (855 miles) has approximately 2 hours, 45 minutes of recovery time and other adjustments.

difficulties in that (a) implementation of these Metrics and Standards must precede project selection decisions in the HSIPR program, thus making track conditions impossible to predict; (b) the concept implies separate standards for each route, a source of undesirable complexity; and (c) for intercity passenger rail to attract the kind of demand that will allow it to reach its full potential to yield public benefits, the standards for 2014—while achievable—must also be customer-centric and competitive with other modes, rather than constrained by current conditions.

d. Comments on All-Stations OTP Measure

Numerous parties expressed misgivings about the All-Stations OTP measure and its potential impact on operations. The FRA and Amtrak, however, firmly believe that the benefits of this measure will more than counterbalance its potential drawbacks. Furthermore, as a matter of principle, the nature of passenger rail service mandates All-Stations OTP: a single train, unlike an airline flight, can serve hundreds of origin/destination pairs, the passengers on each of which deserve a consistently high quality of service that can only be obtained if trains are on time throughout their runs.

Potential drawbacks. ***Comment:*** The CCJPA, AAR, and several freight host railroads stated that analysis of All-Stations OTP data would be an excessive administrative and financial burden, which the AAR claimed would be unjustified given the light passenger traffic at intermediate stations. VDOT implied that All-Stations OTP might actually have the effect of harming Amtrak's Endpoint OTP. Caltrans stated that spreading out recovery time for the All-Stations OTP metric will require thorough analysis and consideration of current operating practices. BNSF commented that Amtrak trains holding at intermediate stations because of reallocated recovery time will create additional delays down their rail line.

Response: FRA analysis shows that passengers utilizing intermediate stations amount to a significant portion of Amtrak's ridership—indeed, on many routes, a majority of the riders. Moreover, FRA and Amtrak believe that every intercity rail passenger deserves a consistently high quality of service under the OTP and other metrics and standards. Thus, both principle and travel demand patterns call for the measurement of OTP at intermediate points, despite the potential burden and operational impacts of this standard as identified by the respondents.

Scheduling implications. ***Comment:*** Both State agencies and freight host railroads acknowledged that the All-Stations OTP metric will require Amtrak and host railroads to agree to schedule adjustments to reallocate recovery time among intermediate stations.

Response: The FRA and Amtrak fully realize that introduction of the All-Stations OTP standard will involve a challenging process of readjustment, in which Amtrak, its railroad hosts, and (where applicable) State sponsors of service will collaboratively analyze and, as needed, modify train schedules. The FRA encourages these parties to develop a strategy and plan to address this challenge as soon as possible. To allow for an orderly transition to All-Stations OTP, the FRA and Amtrak have adjusted the implementation schedule: the All-Stations standard will not go into effect until FY 2012, two years after the other standards, to provide additional time for needed operational and scheduling adjustments. (All-Stations OTP data will, however, be published for information only, beginning with the first quarterly Metrics and Standards report.)

Effects of planned construction and maintenance. ***Comment:*** NS stated that freight host railroads have inadequate input into the schedule setting process, and that—even with

revised schedules—All-Stations OTP will unfairly penalize host railroads when conducting planned track work and receiving late Amtrak trains in the midst of such work. ***Response:*** Annex 1 provides a means of revising public schedules (hence the operation of All-Stations OTP) during periods of major construction and maintenance as agreed upon by Amtrak, the freight railroad host, and (as appropriate) the State sponsor of service.

Alternative approaches. ***Comment:*** Several parties proposed alternatives to the All-Stations OTP or alternative methods for calculating All-Stations OTP. CSX and multiple State agencies recommended simplifying the All-Stations OTP metric by calculating OTP only at strategic intermediate points. Caltrans, on the other hand, recommended maintaining this metric but calculating it based on the average minutes of early or late arrivals at each station. The CCJPA recommended eliminating the All-Stations OTP measure on shorter routes, while NS recommended eliminating the measure completely. ***Response****:* The Final Metrics and Standards retain "All-Station OTP" as originally proposed. Reducing the number of stations covered raises serious questions about how the list of stations is to be pruned, and implies that some passengers' and some cities' quality of train service is more important than that of others. As Amtrak has assured the FRA that the production of All-Stations OTP data is eminently feasible, there is no reason to implement changes to it on the grounds of data availability.

Other issues. ***Comment:*** Caltrans asserted that the All-Stations OTP standards are unrealistically high and, further, that results for this metric will necessarily be lower than for Endpoint OTP. ***Response****:* FRA's own analysis suggests that, at least for some routes, All-Stations OTP could be comparable to or even higher than Endpoint OTP. It should also be noted that the calculation of All-Stations OTP uses a 15 minute grace period, which allows for that level of delays while still recording on-time operation. Even if All-Stations OTP temporarily yields less favorable results than those of Endpoint OTP, the heightened attention to intermediate stations will have long-term benefits both for rail passengers and for Amtrak's traffic volumes and revenues. ***Comment:*** Caltrans also requested confirmation that State agencies will not be responsible for collecting and analyzing the All-Stations OTP data. ***Response****:* Amtrak—and not State agencies or other parties—will be responsible for collecting All-Stations OTP data, which will be analyzed by both Amtrak and FRA personnel.

d. Comments on Train Delay Measures

Which delays to report? ***Comment:*** The AAR and CSX stated that measuring delays for trains that are on-time is an excessive burden and irrelevant to passengers (i.e., this performance measure should only be used to report delays for late trains). ***Response:*** Reporting delays only for late trains limits the insight and comparability of the train delay data. Reporting all delays experienced by all trains better aligns the metric with the OTP standards, which utilize all train operations in their calculations (as opposed to only late train operations), and it gives an average amount of delays experienced during the operations of each route. A train that is meeting its OTP standard may still experience some high levels of delay along its route, a situation that might ultimately lead to revision of the train's schedule to remove excessive recovery time. Reporting all train delays gives Amtrak, host railroads, and FRA an opportunity to analyze comprehensively a route's performance and to develop plans to mitigate any challenges that are revealed, thereby further improving the route's OTP.[9] As a result, train delays has been retained as a key element in the Final Metrics and Standards.

[9] Beyond these objective benefits of tracking all delays, it is not necessarily true that train delays are irrelevant to individual passengers: For some passengers at least, anecdotal evidence suggests that sitting on a stopped train in the

Pure vs. scheduled run time. ***Comment:*** Multiple stakeholders objected to the use of pure run time as the basis for train delay data outside of the NEC.[10] CSX argued that freight railroads are held to a higher performance standard than Amtrak, which measures itself on scheduled run time within the NEC. Several freight railroads argued that use of pure run time does not align with the public's service expectations, which are based on schedules. WSDOT stated that pure run time does not account for planned capital improvement projects, while Caltrans commented that use of pure run time oversimplifies train operations on congested corridors. BNSF stated that OTP measures are only relevant if they are compared to Amtrak's public timetable. Both State agencies and freight railroads recommended basing this metric on scheduled run time. ***Response:*** Again, reporting all train delays gives Amtrak, host railroads, and FRA a better opportunity to identify areas of frequent delays on routes, to further improve route reliability. On the NEC, which at this time is a unique high-speed intercity passenger rail operation, the levels of allowable train delays have been significantly lowered to account for Amtrak's use of scheduled run-time. (Total delay allowances off the NEC amount to 1,225 minutes per 10,000 train-miles; on the NEC, there is a total allowance of only 260 minutes for Acela and 470 minutes for all other services.)

Adjustments for out-of-slot trains and track work. ***Comment:*** Metro-North and Caltrans, respectively, argued that train delay data should be adjusted for out-of-slot trains and for planned track work. ***Response:*** The standard for train delays off the NEC has been increased to 900 minutes per 10,000 train-miles (from the original 700 minutes) in the final Metrics and Standards, which will help host railroads absorb delays they incur as a result of receiving late Amtrak trains. Additionally, delay-minute standards may be temporarily adjusted to account for major track maintenance and construction projects that have been planned by host railroads (see Annex 1 for conditions and other details).

Source of delay data. ***Comment:*** Both State agencies and freight host railroads questioned the source of data on delays. In particular, they criticized the use of Amtrak's conductor delay reports as the primary data source for assessing delays due to concerns with the accuracy of those reports. The AAR and BNSF recommended that the freight railroads' delay data also be considered when analyzing delays. The AAR and CSX stated that a more automated source of delay data is needed. ***Response****:* While we understand these concerns, the source of delay data for the Metrics and Standards is based on the valuable, consistent, comparable information it provides. While some individual host railroads have stated that they produce their own train delay data, no uniform database for minutes of delay across the Amtrak system exists that can replace Amtrak's conductor delay reports. However, individual host railroads can use their own data, when practicable following reporting of the delay, to help resolve discrepancies with Amtrak and help identify the incidents that may have contributed to delays. The FRA agrees that more automated sources of delay data would be beneficial; as noted above, Amtrak has said it will examine integrating more automated OTP measurement mechanisms into future IT implementation efforts (e.g., GPS tracking).

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middle of a cornfield is not only frustrating but also cause for anxiety, as it implies that the train might be late at the passenger's destination. Passengers cannot be expected to know the intricacies of train scheduling, dispatching, and recovery time.

[10] In simplified terms, "pure" run time means that between any two points (say, A and B), Amtrak and the freight railroad will have agreed on how long it should take an Amtrak train to make the run in the absence of any delaying factors. This "pure" run time, plus an allowance ("recovery time" or "pad") for delays, yields the scheduled running time between A and B. Outside the NEC, all delays that cause a train to exceed its "pure" run time are registered as delays, even if the train makes the run between A and B within the scheduled running time.

Source of delay standard. ***Comment:*** Questions arose regarding the regression analysis methodology used to establish the various standards for measuring train delays (as described in the Proposed Metrics and Standards). Both CSX and Caltrans stated that regression analyses and resulting performance standards related to delay data should be implemented on a route-by-route basis instead of collectively to account for different characteristics among Amtrak's routes. ***Response****:* A separate delay standard for each route is not practicable; for example, such a standard would need to be altered each time a route or its schedule is changed. Still, the FRA recognizes that different characteristics exist among Amtrak's routes; to account for such variations, 200 minutes have been added to the off-NEC host-responsible train delay standard of 700 delay-minutes per 10,000 train-miles that was originally proposed. Annex 3 describes the derivation of the delay allowances used in the Final Metrics and Standards.

Delay categories. ***Comment:*** State agencies and host railroads commented that the off-NEC train delay categories are too broad, making it difficult to identify incidents which may have contributed to delays. Both CSX and Metro-North recommended that proposed groupings of delay categories be broken out to provide more detail. Multiple freight railroads indicated that the proposed categories wrongly suggest that many delays are dispatching-related. BNSF further stated that some delays may actually improve Amtrak's overall trip performance, which is not reflected in the proposed Metrics and Standards format. ***Response****:* The inclusion of a train delay allowance in the Metrics and Standards (rather than a zero-tolerance standard) recognizes that a subset of train delays may arise in the normal course of operations, as part of a good-faith effort by all parties to expedite the passage of passenger trains over a complex railway network, or to improve the infrastructure used in passenger service. In terms of the level of detail that will be provided on the source of train delays, these will be provided as metrics for informational purposes only.

Measurement of delays. ***Comment:*** Metro-North requested an explanation as to whether delay minutes on the NEC will be reported on a per 10,000 train-miles basis. ***Response****:* To clarify, train delays on the NEC will be reported on a per 10,000 train-mile basis, which is the same format used to report delays off the NEC. This text was inadvertently left out of the table in the draft.

Comment: NS argued that Delays per 10,000 Train-Miles is an inappropriate measure since no route operates such a distance. NS also commented that the proposed train delay measure does not indicate the frequency and severity of late trains. Furthermore, it recommended removing the entire performance measure from the Metrics and Standards. ***Response****:* Clearly, even the longest Amtrak routes are significantly shorter than 10,000 miles. However, reporting delays on a uniform per train-mile basis is important since there is no consistent route length in the Amtrak system. Amtrak's regularly scheduled services all operate well over 10,000 train-miles each month. With respect to the proposed deletion of the delay standard, PRIIA Section 207 explicitly requires that the FRA and Amtrak jointly develop "metrics and minimum standards for . . . on-time performance and minutes of delay [emphasis added]." Furthermore, although train delay does not indicate the frequency or the severity of late trains, it can provide a starting point for research into the reasons for poor OTP. This initial indicator may be valuable to Amtrak, the host railroads, and any sponsoring State(s) as they seek to raise service quality levels on specific routes.

d. Additional OTP measures proposed

Several recommendations were submitted proposing additional OTP measures.

OTP for other services. ***Comment:*** Maryland Transit recommended including data on commuter and freight train OTP on reports pertaining to the NEC. ***Response:*** While data on commuter and freight OTP might shed further light on operational issues and challenges on the NEC, such data falls outside the scope of these Metrics and Standards. (Section 207 of PRIIA specifically states that the Metrics and Standards are for measuring the performance of intercity passenger train operations.)

Host railroad metric. ***Comment:*** The AAR proposed including a new host railroad metric that would measure performance on the host railroads' own lines based on factors that they can control. ***Response:*** The AAR did not explain how its proposed host railroad metric would be developed or calculated; therefore, this proposal was not sufficiently elaborated for evaluation as part of the docket review.

Measures of the severity of lateness. ***Comment:*** The AAR and CSX proposed including a performance measure calculated based on increments of late train arrivals, e.g., the percentage of trains arriving within 30, 60, and 90 minutes of schedule, in order to enable investigations to be focused on trains that are relatively more late. ***Response:*** The severity of late train arrivals is a component of the Effective Speed measure, of which the total train run time (scheduled time plus endpoint terminal lateness) makes up the denominator. Accordingly, there is no pressing need in the Metrics and Standards for an analysis of train arrivals by lateness increment. Nevertheless, for specific purposes—for example, the development of performance improvement plans for the worst-performing long-distance routes under Section 210 of PRIIA—such a distribution may prove highly informative and beneficial.

D. Other Service Quality Measures

1. Summary of the Proposal and of the Final Metrics and Standards

In the Other Service Quality area, most metrics and standards are derived from Amtrak's Customer Satisfaction Index (CSI). The topics cover the full range of the passenger experience on and off the train. Of these, most require a "very satisfied" rating from 80 percent of passengers in 2010, and 90 percent in 2014; the only divergences from this standard is for overall service in 2010 (82 percent). As the measures for the "overall station experience" and the "overall sleeping car experience" are not currently included in the CSI, their implementation continues to be deferred.

Two other metrics, not based on the CSI, fall within this category: Equipment-caused service interruptions per 10,000 train-miles, and the presentation of Amtrak passenger comment data by subject matter and major route grouping. No standards would attach to these items, which would be included in the quarterly Metrics and Standards report for information only.

2. Comments and Responses

a. Additions to the Customer Satisfaction Index (CSI) in the Proposed Metrics and Standards

Comment: NARP expressed support for including CSI metrics for passengers' station and sleeping car experiences. ***Response:*** While sufficient CSI data to create standards for stations and sleeping cars currently do not exist, the FRA will work with Amtrak on incorporating these topics into the CSI and developing metrics and standards for them.

b. Other proposed topics

Comment: An individual of unknown affiliation commented that food service should be available on all trains over one hour in duration, that clean restrooms should be standard on all trains, and that safe boarding/detraining should be standard at all stations. The FRA inferred that the respondent was recommending these items for inclusion as performance standards.

Response: The suggested metric on food availability is too prescriptive, in view of the wide-array of operational characteristics that exist across Amtrak's routes, to be incorporated into the Metrics and Standards. In addition, the suggested standard for safe boarding/detraining is outside the scope of the PRIIA Section 207 mandate, particularly as safety issues fall under Division A of Public Law 110-432, the Rail Safety Improvement Act of 2008, of which Section 404 mandates a study of methods to improve or correct passenger station platform gaps "to minimize the safety risks associated with such gaps for railroad passengers and employees." Also, clean restrooms are already considered in the Metrics and Standards as an aspect of the "On-Board Cleanliness" measure.

c. Sources of Other Service Quality Standards

Comment: WSDOT asked about the source of the Other Service Quality standards and whether comparable foreign data were used to assist in setting these standards. ***Response:*** While acknowledging the potential insights that data from foreign countries and other modes might provide, the FRA and Amtrak regard the CSI as the most practical and readily available source for metrics and standards in the area of Other Service Quality factors.

d. Objectivity of Data Sources

Comment: The TWU noted that the Other Service Quality measures are largely tied to subjective customer response data that are strongly correlated with OTP. The TWU encouraged the use of more objective and credible data sources in establishing standards and stated that the Metrics and Standards should not be implemented until the Other Service Quality data sources are strengthened. ***Response:*** FRA and Amtrak acknowledged in the Proposed Metrics and Standards that the CSI has some limitations—for instance, the correlation of responses in all areas with on-time performance. Still, as mentioned above, the FRA and Amtrak believe that the CSI provides a practicalfoundation for the Other Service Quality standards in compliance with the PRIIA. Moreover, the PRIIA's stringent deadlines did not allow for, nor did the PRIIA authorize or fund, extensive research into methods for setting and reporting on Other Service Quality criteria and standards; nor did the PRIIA provide for any new survey instruments or inspection mechanisms, which would likely have been necessary to implement any research recommendations.

e. Level of Other Service Quality Standards

Comment: Several parties submitted comments regarding the appropriate level at which the Other Service Quality standards should be set. NARP, WSDOT, and Caltrans indicated that the Other Service Quality goals were too high, while WisDOT stated they were too low. WSDOT noted that many stations used by Amtrak are not in fact owned by Amtrak, and that standards prescribing station improvements will be a burden for the (often local) station owners to implement. WSDOT recommended the removal of the metric on On-Board Food Service satisfaction due to the inconsistent nature of responses, while TWU requested more information on the Equipment-Caused Service Interruptions measure to better assess its appropriateness.

Response: The FRA believes that the Other Service Quality standards are appropriate. These standards were based on the historical trends of the CSI data, which demonstrate a pattern

of annual improvement. With regard to stations, the proposed metric is Percent of Passengers "Very Satisfied" with the overall station experience. The FRA and Amtrak have not yet proposed a standard for this metric, for which data do not yet exist. However, assessing passenger reactions to the station experience is worthwhile—regardless of the availability of funding for any investments that would improve that experience, and irrespective of the stations' ownership. With regard to on-board food service, despite discrepancies in how respondents rate Amtrak's food service, this metric is valuable as a basic indicator of how well Amtrak's investment in food service aligns with customer needs and expectations. Finally, regarding Equipment-Caused Service Interruptions, this metric is intended to offer some insight into the reliability and soundness of the fleet as experienced by passengers. While details are yet to be fully worked out, the Proposed Metrics and Standards provided a definition of service interruption as well as a brief description of the mechanics to be used in calculating this metric. Also, to reiterate, this metric would be calculated on a route-by-route basis, not for the system as a whole; and no standard is being proposed for this metric.

E. Public Benefits, Including Service Availability and Connectivity

The original proposal contained a fourth category of metrics, "service availability/connectivity," that would measure the degree to which long-distance passengers are transferring among routes and the availability of train service to communities lacking other public transport options—topics mandated by Congress in PRIIA Section 207. In recent months, the implementation of a new Federal policy toward intercity passenger rail—as exemplified by the HSIPR program and its strategic plan and interim guidance—has focused the Nation's attention on the full spectrum of public benefits inherent in the rail mode. Accordingly, the scope of the former "service availability/connectivity" category has been expanded to address "public benefits" generally. The measures of "connectivity" and "availability of other modes" will remain intact, as originally proposed, as part of "Public Benefits"; in addition, an analysis will be undertaken of opportunities for incorporating energy-saving and environmental measures into the Metrics and Standards. Proposals emanating from this analysis of Public Benefits will, of course, be made available for public comment.

With regard to the service availability/connectivity category of the original proposal, the only comment received was from NARP. ***Comment:*** NARP stated that intermediate stations currently receiving late night service should receive daytime service through increased frequencies rather than by adjusting schedules. NARP also recommended that language be modified to leave open the possibility of future additions to service. ***Response:*** The reduction in passenger rail service over the past half-century has left many long-distance routes with one daily train each way—a situation inevitably leaving many communities with poorly-timed service in one or both directions. Thus, NARP's comment treats a serious and difficult issue. Still, scheduling issues, including whether or not to increase train frequencies on a particular route, are a business decision outside the scope of these Metrics and Standards—and indeed, are referred to in a separate section of PRIIA (Section 208).

METRICS AND STANDARDS FOR INTERCITY PASSENGER RAIL SERVICE

In accordance with Section 207 of the Passenger Rail Investment and Improvement Act of 2008 (PRIIA), the Federal Railroad Administration (FRA) and Amtrak are jointly issuing the following Metrics and Standards for intercity passenger rail service. All Metrics and Standards will be measured and applied on a quarterly basis, except where otherwise noted.

Metric/ Stand-ard Category	Metric/Standard Subcategory	Standard Applies By	Statutory Require-ment	Added Measure	Standard; Comments
Financial	Percent of Short-Term Avoidable Operating Cost[11] Covered by Passenger-Related Revenue (exclude capital charges), both with and without State subsidy included in revenue	**route**	✓		Continuous year-over-year improvement on a moving eight-quarter average basis. Dollar-denominated metrics (surpluses/losses per passenger-mile) will be reported in constant dollars of the reporting year (based on the OMB GDP Chain Deflator).
	Percent of Fully Allocated Operating Cost[12] Covered by Passenger-Related Revenue (exclude capital charges), both with and without State subsidy included in revenue	**route**	✓		
	Long-term avoidable operating loss[13] per PM (exclude capital charges), both with and without State subsidy included in revenue	**route**		✓	
	Adjusted (Loss)[14] per passenger-mile, both with and without State subsidy included in revenue	**system**		✓	
	Passenger-Miles per Train-Mile	**route**	✓		

[11] "Short-Term Avoidable Operating Costs" are those costs that would cease to exist one year after a specific route ceases to operate.

[12] "Fully-Allocated Costs" of a route are the total costs of operating the route, including all types of production costs (direct materials, direct labor, and fixed and variable overhead) and also a share of marketing, administrative, financing, and other central corporate expenses.

[13]The "long-term avoidable operating loss" of a route is the improvement in Amtrak's bottom line that would accrue five years after, and solely due to, the elimination of a given route.

[14] The definition of Adjusted (Loss) is: Net Loss of Amtrak's Operating Business Lines, adjusted to eliminate the effects of Depreciation, Other Post-Employment Benefits (OPEB's), project costs covered by capital funding, and net interest expense.

Metric/ Stand-ard Category	Metric/Standard Subcategory	Standard Applies By	Statutory Require-ment	Added Measure	Standard; Comments
On-Time Performance	**On-Time Performance (OTP).** This congressionally-mandated metric/standard will consist of two tests (Nos. 1 and 2) starting in FY 2010, and three tests (Nos. 1, 2, and 3) beginning in FY 2012. All tests applicable in a given quarter must be met.	**Route**[15]	✓		
	Test No. 1: Change in "Effective Speed"—which is defined as a train's mileage, divided by the sum of (a) the scheduled end-to-end running time plus (b) the average endpoint terminal lateness.				Effective speed for each rolling four-quarter period must be equal to or better than the average effective speed during FY 2008.
	Test No. 2: Endpoint OTP[16]				In FY 2010, Endpoint OTP must be at least 80% for all routes except Acela (90%) and other Northeast Corridor (NEC) corridor routes (85%).[17] By FY 2014, Endpoint OTP must be at least 95% for Acela, 90% for all other NEC and non-NEC corridor routes,[18] and 85% for long-distance routes. If public Amtrak schedules are adjusted for major maintenance and construction projects (see Annex 1), Endpoint OTP will be calculated against the adjusted schedule.

[15] Each route comprises two or more trains (at least one in each direction). The Internet version of the quarterly Metrics and Standards report will contain a link to train-by-train information that will allow all stakeholders to characterize performance at the train level and facilitate compliance with all relevant sections of PRIIA.

[16] A train is considered "late" if it arrives at its endpoint terminal more than 10 minutes after its scheduled arrival time for trips up to 250 miles; 15 minutes for trips 251-350 miles; 20 minutes for trips 351-450 miles; 25 minutes for trips 451-550 miles; and 30 minutes for trips of 551 or more miles. These tolerances are based on former ICC rules. The exception is that all Acela trips, regardless of run length, are considered late if they arrive at their endpoint terminal more than 10 minutes after their scheduled arrival time.

[17] For purposes of the Change in Effective Speed, Endpoint OTP, and All-Stations OTP metrics and standards, "other NEC corridor trains" are all Northeast Regional and Keystone service trains, including the Northeast Regional trains operating between Washington and points in Virginia.

[18] "Non-NEC corridor trains" refers to trains in all Amtrak services other than the Northeast Corridor trains (Acela, Northeast Regional, and Keystone), and other than the long-distance trains (Auto Train, California Zephyr, Capitol Limited, Cardinal, City of New Orleans, Coast Starlight, Crescent, Empire Builder, Lake Shore Limited, Palmetto, Silver Meteor, Silver Star, Southwest Chief, Sunset Limited, and Texas Eagle.)

Metric/ Stand-ard Category	Metric/Standard Subcategory	Standard Applies By	Statutory Require-ment	Added Measure	Standard; Comments
	Test No. 3 (Effective as of FY 2012): All-Stations OTP—which is defined as the percentage of train times (departure time from origin station and arrival time at all other stations) at all of a train's stations that take place within 15 minutes (10 minutes for Acela) of the time in the public schedule.[19]				Effective FY 2012, All-Stations OTP must be at least 80% for all routes except Acela (90%) and other NEC corridor routes (85%). By FY 2014, All-Stations OTP must be at least 95% for Acela, 90% for all other NEC and non-NEC corridor routes, and 85% for long-distance routes. Results for this metric will be published beginning with the first report under Section 207, even though the test is not in effect until FY 2012. If public Amtrak schedules are adjusted for major maintenance and construction projects (see Annex 1), All-Stations OTP will be calculated against the adjusted schedule.
Train Delays	**Train Delays**.[20] This Congressionally-mandated metric/standard will consist of two groups of tests—"off" and "on" the Northeast Corridor (NEC)[21]: See Annex 1 for special provisions with respect to train delay due to major planned maintenance and construction projects.		✓		Annex 3 describes the rationale for the standards adopted in the Train Delay category.
	Train Delays—Off NEC				
	Amtrak-Responsible[22] Delays per 10,000 Train-Miles	**Route**[15]			Delays must be not more than 325 minutes per 10,000 Train-Miles.

[19] The 15-minute tolerance for All-Stations OTP is based on 49 U.S.C. Section 24101(c)(4).
[20] As calculated by Amtrak according to its existing procedures and definitions.
[21] For this purpose, the NEC is defined as the entire main line between Boston, New York, and Washington, except for the portion owned by Metro-North between New Rochelle and New Haven. Also included in the NEC definition are the Keystone line between Philadelphia and Harrisburg and the Springfield line between New Haven, Hartford, and Springfield. Metro-North, on its New Rochelle-New Haven segment, is the host railroad.
[22] "Amtrak-responsible" refers to delays coded on Amtrak Conductor Delay Reports as Passenger-Related (ADA, HLD), Car Failure (CAR), Cab Car Failure (CCR), Connections (CON), Engine Failure (ENG), Injuries (INJ), Late Inbound Train (ITI), Service (SVS), System (SYS), or Other Amtrak-Responsible (OTH).

Metric/ Stand-ard Category	Metric/Standard Subcategory	Standard Applies By	Statutory Require-ment	Added Measure	Standard; Comments
	Host-Responsible[23] Delays per 10,000 Train-Miles	**Route**[15] **and host**			Delays must be not more than 900 minutes per 10,000 Train-Miles. Major reported causes of delay will also be shown for information (with no standard attached to them). The 900-minute standard is intended to absorb routine/seasonal maintenance, track work, and other routine construction projects. On a case-by-case basis, an additional delay allowance above this standard may also be applied to account for major maintenance and construction projects. See Annex 1 for further details.
	Train Delays~~—~~ On NEC: Total Delays[24] per 10,000 Train-Miles	**Route**[15] **and host**			Delays must be not more than 265 minutes per 10,000 Train-Miles for Acela, and 475 minutes per 10,000 Train-Miles for all other services on the NEC. Reported causes of delay will also be shown for information (with no standard attached to them). The 265- and 475-minute standards are intended to absorb routine/seasonal maintenance, track work, and other routine construction projects. On a case-by-case basis, an additional delay allowance above this standard may also be applied to account for major maintenance and construction projects. See Annex 1 for further details.

[23] "Host-responsible" refers to delays coded on Amtrak Conductor Delay Reports as Freight Train Interference (FTI), Slow Orders (DSR), Signals (DCS), Routing (RTE), Maintenance of Way (DMW), Commuter Train Interference (CTI), Passenger Train Interference (PTI), Debris Strikes (DBS), Catenary or Wayside Power System Failure (DET, used in electrified territory only), or Detours (DTR).

[24] "Total delays" for purposes of the NEC delay standard is all delays except 3rd Party delays.

Metric/ Stand-ard Category	Metric/Standard Subcategory	Standard Applies By	Statutory Require-ment	Added Measure	Standard; Comments
Other Service Quality	**The following metrics and standards are based on Amtrak's Customer Satisfaction Index:**				
	Percent of Passengers "Very Satisfied"[25] with Overall Service	**route**	✓		82 percent in 2010; 90 percent by 2014
	Percent of Passengers "Very Satisfied" with Amtrak personnel	**route**	✓		80 percent in 2010; 90 percent by 2014
	Percent of Passengers "Very Satisfied" with Information Given	**route**	✓		
	Percent of Passengers "Very Satisfied" with On-Board Comfort	**route**	✓		
	Percent of Passengers "Very Satisfied" with On-Board Cleanliness	**route**	✓		
	Percent of Passengers "Very Satisfied" with On-Board Food Service	**route**	✓		
	Future: Percent of Passengers "Very Satisfied" with the overall station experience	**route**	✓		Future metric and standard; standard to be determined
	Future: Percent of Passengers "Very Satisfied" with the overall sleeping car experience	**route**	✓		Future metric and standard; standard to be determined
	The following measures are for information only and are based on sources other than the Customer Satisfaction Index.				
	Equipment-caused service interruptions per 10,000 train-miles	**route**	✓		Metric only. This is an initial metric, intended to reflect objectively the quality of mechanical maintenance as perceived by the passenger. No standard is proposed.
	Presentation of Amtrak passenger comment data by subject matter and major route grouping (NEC, other corridors, long-distance)	**type of route**		✓	Information only. No standard proposed; presented as supplementary information.

[25] "Very Satisfied" with the service quality is defined as a score in the top three steps on a scale of eleven evaluation ratings that respondents can ascribe to each facet of the service. For a given service factor, "80 percent" means that 80 percent of respondents rated Amtrak in the top three of the eleven steps of the scale.

Metric/ Stand-ard Category	Metric/Standard Subcategory	Standard Applies By	Statutory Require-ment	Added Measure	Standard; Comments
Public Benefits	Connectivity measure: Percent of passengers connecting to/from other routes. To be updated annually.	**long-distance route**	✓		Metric only. No standard possible; improvement could require network changes
	Availability of other modes: Percent of passenger-trips to/from underserved communities.[26] To be updated annually.	**route, system**	✓		Metric only. No standard possible; improvement could require network changes
	Energy-Saving and Environmental Measures. This is a new grouping of one or more measures under "Public Benefits." A forthcoming analysis will identify various methodologies for incorporating environmental benefits and energy savings into these Metrics and Standards at a later date. Any proposals in this regard will be made available for public comment.				

[26] "Underserved communities" would be defined for this purpose as those more than 25 miles from a place with 50,000 or more inhabitants. This definition, which assumes that places with a population of 50,000 or more (and their environs within a radius of 25 miles) are not "underserved," is preliminary and subject to change as research progresses.

List of Annexes

Annex 1: Additional Delay Allowance for Major Maintenance and Construction Projects

- To facilitate advance planning for major maintenance and construction projects and thereby minimize customer impact of such projects, Amtrak and individual host railroads may agree that during a specific quarter, a specific train will incur more Host- or Amtrak-responsible delay than usual due to a major maintenance and construction project.
- The Section 207 delay standards (e.g., 900 minutes of host-responsible delay per 10,000 train-miles off-NEC) are intended to absorb routine track work, signal, and related maintenance (including seasonal work), and other routine or small projects. As such the process described herein applies only to major maintenance and construction projects. "Major maintenance and construction projects" are typically characterized by:
    - Sufficient scale and scope that they cannot be absorbed by normal recovery time and delay standards. "Sufficient scale and scope" are typically indicated by a combination of at least three of the following:
        - System gang rather than Division gang
        - Host is changing freight schedules
        - Project duration at least 4 days
        - Affects at least half of Amtrak trains in the affected Amtrak service
    - Planned sufficiently in advance to allow at least 4 weeks advance notice to Amtrak (e.g., to allow schedules to be adjusted and passengers to be notified as appropriate)
    - Duration of the work is limited in both time and geography (the project has dedicated resources, a timeline, and a conclusion; it is not ongoing maintenance on a route all season long)
- FRA's quarterly report will indicate any major maintenance and construction allowance agreed upon by Amtrak and the host for that quarter.
    - Amtrak will keep records of any major maintenance and construction allowances, and will provide this information to FRA quarterly for inclusion in the report
    - Delay minutes will continue to be recorded and reported normally
- Where a major maintenance and construction allowance has been agreed upon by Amtrak and a host, the delay standard is considered to be met if either of the following is true:
    1. Delays are within the applicable standard (e.g., 900 minutes of host-responsible delay per 10,000 train-miles off NEC; 325 minutes of Amtrak-responsible delay per 10,000 train-miles off NEC), or
    2. Delays are within the applicable standard plus applicable major maintenance and construction allowance
- Where public Amtrak schedules are adjusted in response to major maintenance and construction, All-Stations OTP and Endpoint OTP will be reported against the adjusted schedules. Therefore, the OTP standards will not be adjusted for major maintenance and construction.

Due to the increased impact to customers when major maintenance and construction plans are changed close to the actual date of the work, unless otherwise agreed by Amtrak and the host, major maintenance and construction allowances shall apply only if the work is done in accordance with the plan (e.g., agreed-upon dates, schedule changes, etc.) originally agreed to by Amtrak and the host.

Annex 2: Collaboration Anticipated in Achieving Metrics and Standards

Good-faith collaboration between Amtrak and host railroads, as well as State and other stakeholders as appropriate, will be needed to ensure that the implementation of the above Section 207 standards is a success. Subject to the parties' statutory rights, examples of such collaborative efforts may include:

- Review of passenger and freight schedules, in particular to ensure that Amtrak schedule Recovery Time is appropriately allocated to support the All-Stations OTP standard. Amtrak and hosts may also explore temporarily lengthening Amtrak schedules vs. today during periods with seasonal operating variations, such as major maintenance and construction projects,[27] and potentially shortening Amtrak schedules vs. today where appropriate. The preferences of, and of course the contractual obligations of Amtrak and the host railroads toward State stakeholders will be fully taken into account in any such exploratory talks. Where available, joint host-Amtrak simulation modeling may be used as a source of information in evaluating schedules and recovery time assumptions, within the context of the Performance Improvement Program process.
- Collaborating to establish new analytical and reporting processes based on the Section 207 Standards. For example, for hosts that today measure themselves internally based on the compensation (incentive/penalty) provisions of their operating agreements with Amtrak, Amtrak and FRA anticipate that host internal management reports will need to be revised to monitor compliance with Section 207 Standards. Amtrak and hosts can work collaboratively to design new reporting processes.
- Potential automation of station arrival and departure time recording. Amtrak is currently working on these data enhancements.
- Expansion of Performance Improvement Programs as an opportunity to focus in more detail on potential operating, maintenance, and capacity improvements on individual routes, including incorporating the above processes as appropriate. Performance Improvement Programs may be used to analyze traffic patterns and to validate freight and passenger train operating plans to ensure they are designed to allow passenger trains to achieve the Section 207 Standards.

<u>The above is not intended to affect, add to, or detract from the responsibilities of any party under the Section 207 Metrics and Standards.</u>

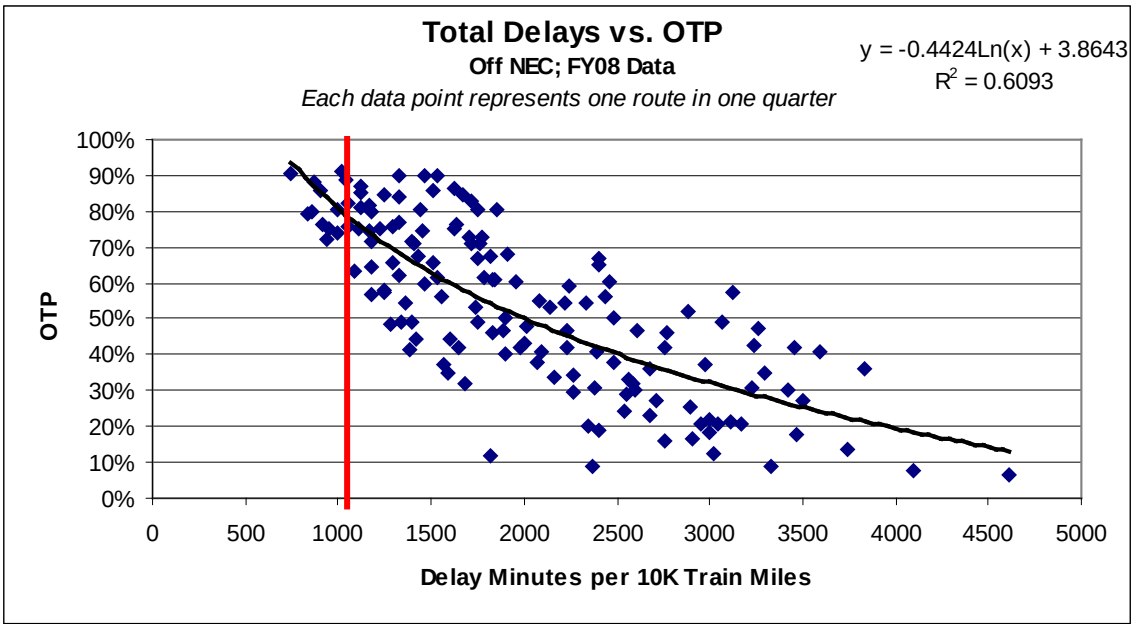
[27] Variations for major maintenance and construction projects will be subject to the process outlined in Annex 1.

Annex 3: Explanation of Train Delay Analysis

Regressions were run to determine the relationship between percent on time and delay minutes per 10,000 train-miles. Separate studies were undertaken for Northeast Corridor (NEC) and off-Northeast Corridor routes, in order to account for the difference in how delays are measured in the Northeast Corridor as well as the desire to set tighter standards for Northeast Corridor operations than for host railroad operations.

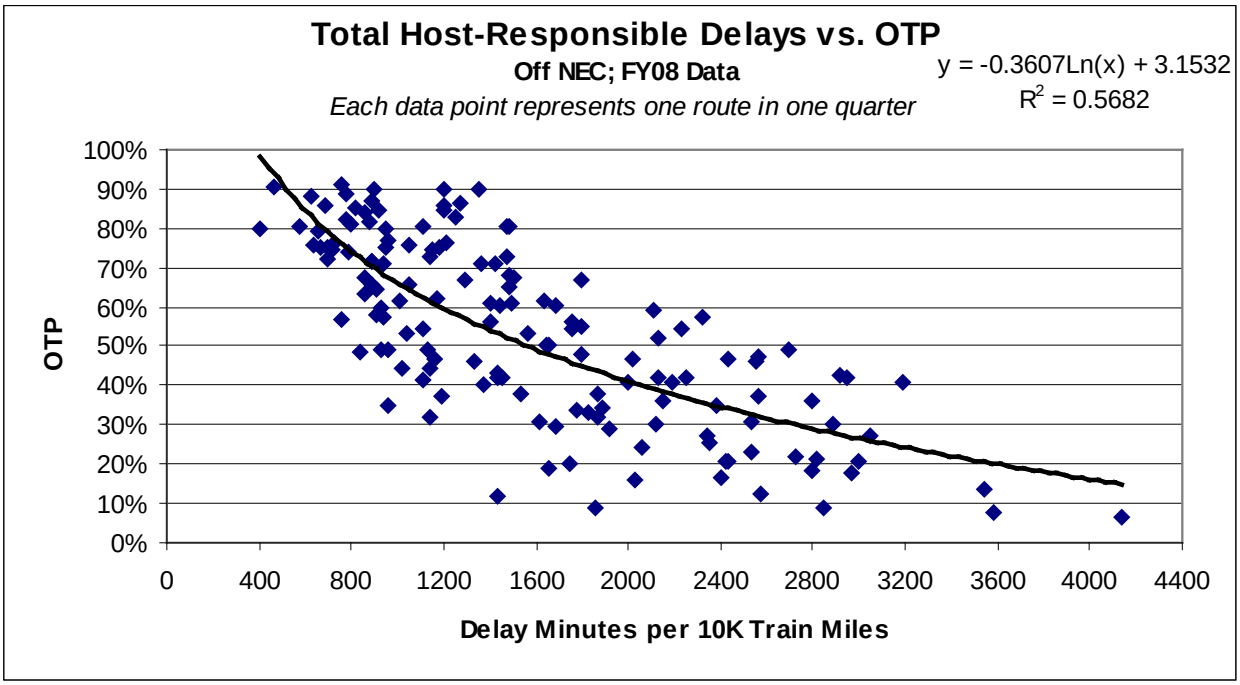
Off the Northeast Corridor, it was determined that 1,030 minutes of delay per 10,000 train miles correlates with an 80 percent endpoint on time arrival rate (see Figure A-1). After rounding up to 1,050 minutes, this delay must be apportioned between Host, Amtrak, and 3rd Party responsible causes.

Figure A-1: Total Delays off the NEC Corridor vs. Percent On Time



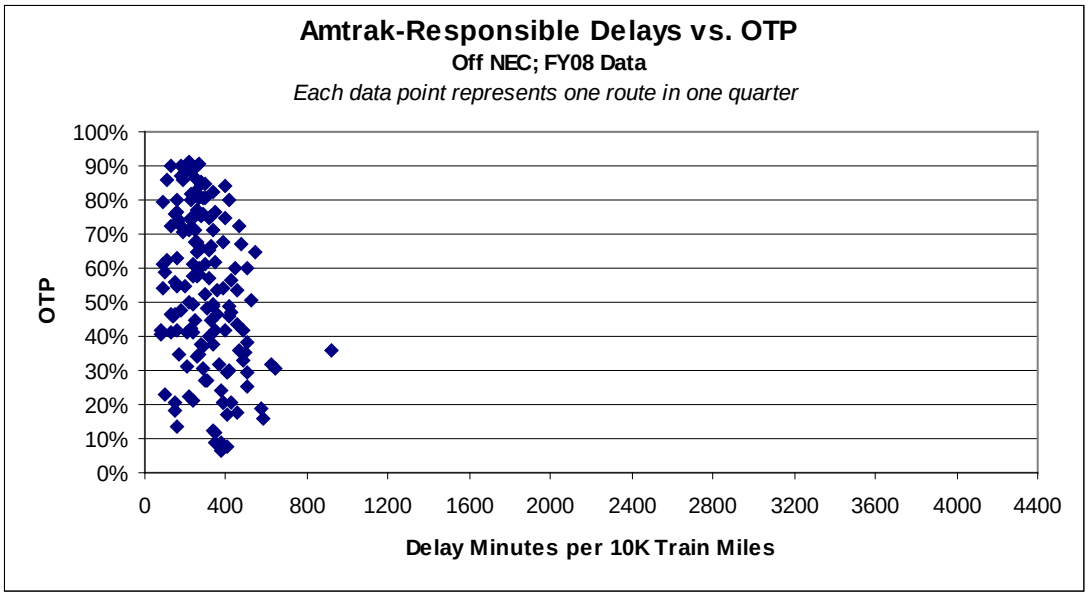
Regressions were then run to determine the relationship between host-responsible delays and OTP. This analysis found that 690 minutes of host-responsible delay per 10,000 train miles correlates with 80% OTP (Figure A-2). This number was rounded up to generate the originally-proposed standard of 700 minutes per 10,000 train miles.

Figure A-2: Total Host Responsible Delays off the NEC vs. Percent On Time



As illustrated in Figure A-3, Amtrak-responsible delays off the Northeast Corridor are not a large enough portion of total delays to independently drive OTP up or down. Therefore, the non-Host delays (1,050 – 700 = 350 mins) were apportioned between Amtrak and 3rd Party responsibility based on historical experience. During the study period of Amtrak's FY 2008, Amtrak delays represented 70% of combined Amtrak and 3rd-Party (i.e., non-Host) delay minutes. The standard for Amtrak-responsible delays therefore was originally proposed as 70% of 350 minutes = 245 minutes, rounded up to 250 minutes per 10,000 train miles.

Figure A-3: Amtrak Responsible Delays off the NEC vs. Percent On Time



The final delay standards for Host- and Amtrak-responsible delays have been adjusted to 900 minutes and 325 minutes, respectively, per 10,000 train miles. This standard represents a 30 percent increase in allowable delays but is within the regression range that correlates to OTP. This adjustment is intended to:

- Ensure that the delay standards are sufficient to absorb any seasonal variations and/or routine maintenance or construction projects where the Major Maintenance and Construction adjustments outlined in Annex 1 have not been granted
- Allow Amtrak and hosts additional flexibility to collaborate in how to achieve the OTP standards, which must be met regardless of whether or not the delay standards also are met in a particular situation.

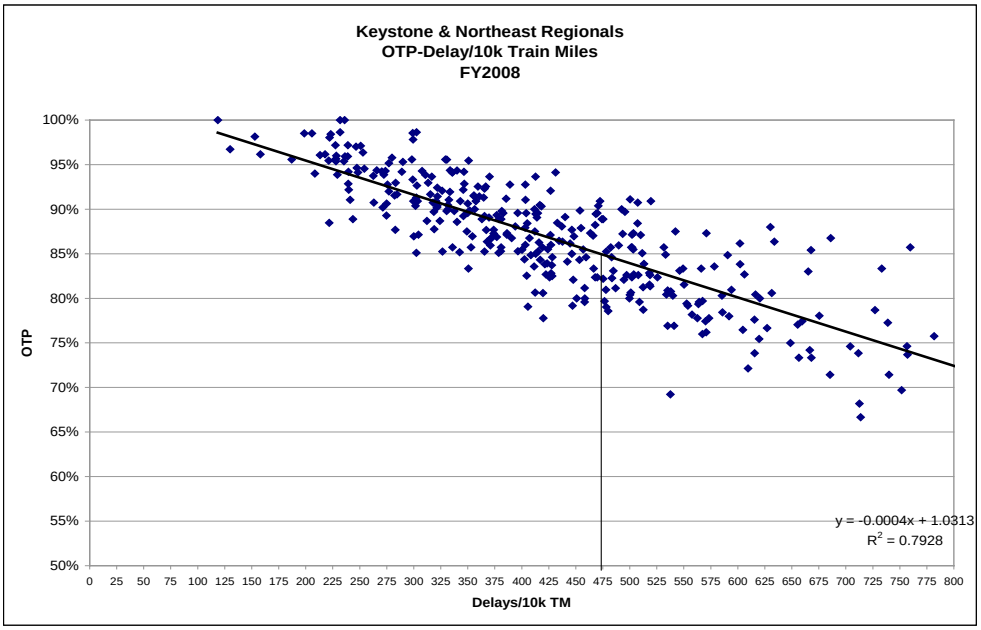
Similar regression studies were undertaken to determine the correlation between endpoint on-time performance and minutes of delay on the Northeast Corridor[28]. Two separate studies were completed, one for Acela Express service using a 90% endpoint arrival rate and one for Northeast Regional/Keystone services using an 85% endpoint arrival rate.

An existing Acela Express mathematical regression model was applied using daily FY08 data to determine the minutes of delay threshold that correlates to 90% endpoint on time performance. It was determined that 285 minutes of delay per 10,000 train miles was the mid-point of the high-low delay minutes range that correlates with a 90% endpoint on time arrival rate. Delays per 10,000 train miles were then apportioned across the delay categories based on minutes of delay incurred by each category in FY08.

The Keystone & Northeast Regionals On Time Performance (OTP)-Delay study used daily performance and delay data from FY08. The study evaluated the relationship between OTP and delays. OTP was defined as the share of trains that arrived at endpoint within their endpoint tolerance for a particular day and delays were defined as total delay minutes incurred normalized to 10,000 miles operated. The OTP and delay data were plotted and the relationship (shape, slope, intercept, R^2) calculated. The total delay target of 470 minutes of delay per 10,000 train miles was derived by finding the total delays incurred on days when endpoint arrival performance was 85% or better. It was determined that 470 minutes of delay per 10,000 train miles was the mid-point of the high-low delay minutes range that correlates with an 85% endpoint on time arrival rate (Figure A- 4). Delays per 10,000 train miles were then apportioned across the delay categories based on minutes of delay incurred by each category in FY08.

[28] Off-Northeast Corridor Host railroad delay standards apply to Metro North Railroad.

Figure A- 4: Total Delays on the NEC vs. Percent On Time for Northeast Regional and Keystone Services



Similar to off-Northeast Corridor delays, the final delay standards for on-NEC delays where Amtrak is Host and is responsible for all delays except third party delays has been adjusted to 265 minutes of delay per 10,000 train miles for Acela Express and 475 minutes of delay for all other services. These standards represent total delays not including third party delays and represent an adjustment in allowable delays that is within the regression range that correlates to OTP. The adjustment of the standards is intended to ensure that the delay standards are sufficient to absorb any seasonal variations and/or routine maintenance or construction projects where the Major Maintenance and Construction adjustments outlined in Annex 1 have not been used.

Annex 4: Lists of Parties Submitting Written Comments

Listing by Type of Respondent

State Departments of Transportation
California Department of Transportation, Division of Rail (Caltrans)
Maryland Transit Administration (MTA)
Virginia Department of Rail and Public Transportation (VDOT)
Washington State Department of Transportation (WSDOT)
Wisconsin Department of Transportation, Railroads and Harbors Section (WisDOT)
State Intercity and Commuter Passenger Rail Agencies
Capitol Corridor Joint Powers Authority (CCJPA)
Metro-North Commuter Railroad Company (MNR)
Southern California Regional Rail Authority (SCRRA)
Freight Host Railroads
Burlington Northern Santa Fe Railway (BNSF)
CSX Corporation (CSX)
Norfolk Southern Corporation (NS)
Railroad-Related Organizations
Association of American Railroads (AAR)
Midwest High Speed Rail Association (MHSRA)
National Association of Railroad Passengers (NARP)
Labor Unions
Transport Workers Union of American, Railroad Division (TWU)
Unaffiliated Individuals
Anne Marie Desiderio
Federal Agencies
Surface Transportation Board (STB)

Alphabetical Listing of Respondents

Anne Marie Desiderio
Association of American Railroads (AAR)
Burlington Northern Santa Fe Railway (BNSF)
California Department of Transportation, Division of Rail (Caltrans)
Capitol Corridor Joint Powers Authority (CCJPA)
CSX Corporation (CSX)
Maryland Transit Administration (MTA)
Metro-North Commuter Railroad Company (MNR)
Midwest High Speed Rail Association (MHSRA)
National Association of Railroad Passengers (NARP)
Norfolk Southern Corporation (NS)
Southern California Regional Rail Authority (SCRRA)

Surface Transportation Board (STB)
Transport Workers Union of America, Railroad Division (TWU)
Virginia Department of Rail and Public Transportation (VDOT)
Washington State Department of Transportation (WSDOT)
Wisconsin Department of Transportation, Railroads and Harbors Section (WisDOT)