

# The Federal Role in Rail Transit Safety

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## Summary

On June 22, 2009, two transit trains in Washington, DC, collided, resulting in nine deaths and dozens of injuries. It was the worst crash in the history of the Washington Metropolitan Area Transit Authority's rail transit system. This crash has raised questions about the safety of rail transit and the government's role in ensuring that safety.

Nationwide, rail transit is considered one of the safest modes of transportation. Every weekday more than 7 million people board rail transit vehicles in the United States; in the most recent year for which statistics are available, 2007, 188 people died in rail transit incidents. Most of those deaths occurred on commuter rail operations; 32 people were killed in incidents involving heavy rail transit, and another 32 in incidents involving light rail transit.

Rail transit operations are an inherently local activity, and the federal government has limited responsibility for the safety of rail transit operations. Congress directed the Federal Transit Administration (FTA) to establish the State Safety Oversight Program in 1991; this program went into effect in 1997. Under this program, states are responsible for the safety of the rail transit systems within their borders. States are required to establish a state safety oversight agency which sets requirements for rail transit safety and monitors the performance of rail transit agencies in following those requirements. FTA sets minimum requirements for the safety programs that the state agencies implement, and oversees the efforts of the state agencies in carrying out the program. There are 26 states with oversight agencies overseeing 48 rail transit systems. The level of expertise and resources within the state oversight agencies varies, and is not necessarily correlated with the amount of rail transit activity the agencies are responsible for.

Fatal rail transit incidents are sufficiently infrequent that fatality numbers alone may not provide a useful basis for evaluating the performance of this safety oversight program. In a congressional hearing on the program in 2006, and in a related Government Accountability Office (GAO) report on the program, representatives of FTA, state safety oversight agencies, and rail transit agencies said they felt the program was effective, though it could be improved. FTA said that it was working on developing alternative measures with which to assess the benefits of the program.

At the hearing, and in the GAO report, several issues were mentioned by representatives of FTA and state oversight agencies as offering opportunities to improve the program. These included increasing the level of rail safety expertise and the level of safety resources in the state oversight agencies; providing federal funding to support the work of the oversight agencies; and providing additional enforcement authority to ensure compliance with the requirements of the program.

Given that states are responsible for the safety of rail transit operations within their borders, the existence of rail transit systems that operate in more than one state poses a challenge for the program. GAO's study found that the oversight of three multi-state rail transit systems varied; for two of the systems, the respective states appeared to have found ways to collaborate that resulted in effective oversight of the systems, but in the case of the Metrorail system of the Washington Metropolitan Area Transit Authority (WMATA), which operates in the District of Columbia and the states of Maryland and Virginia, GAO found several shortcomings in the oversight structure.

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## Introduction

Every weekday in the United States more than 7 million people board a rail transit vehicle.<sup>1</sup> Rail transit is considered one of the safest modes of transportation, but incidents such as the recent collision between two transit trains in Washington, DC, raise questions about the safety of rail transit and the government's role in ensuring its safety.

This report examines the safety record of rail transit and the division of responsibilities for ensuring the safety of rail transit operations, with an emphasis on the role of the federal government. The report describes the different types of rail transit systems and the condition of those systems, presents statistics on the safety record of rail transit operations, and then looks at the roles of federal, state, and local entities responsible for ensuring the safety of rail transit. The federal agency primarily responsible for rail transit safety is the Federal Transit Administration (FTA), though one form of rail transit, commuter rail, is regulated primarily by the Federal Railroad Administration (FRA) because it operates on the nation's intercity rail network and interacts with freight and intercity passenger trains. This report does not address the regulation of commuter rail safety. Nor does this report address the issue of rail transit security. The focus of this report is on the FTA's role in ensuring the safety of "heavy rail" transit, by far the most heavily used form of rail transit; the transit trains that collided in Washington, DC, were heavy rail trains.

## **Overview of Rail Transit**

Public transit (also known as mass transit, mass transportation, and public transportation) is defined in federal law as "transportation by a conveyance that provides regular and continuing general or special transportation to the public, but does not include school bus, charter, or sightseeing transportation" (49 U.S.C. §53). Rail transit is the second largest mode within transit, measured by transit passenger trips; it accounts for about 41% of transit trips (bus service accounts for about 53%).

Due to its costs of construction, rail transit is typically provided only in metropolitan areas with relatively large populations. There are three primary types of rail transit:

- Heavy rail service is provided by multicar trains powered by electricity, operating on exclusive rights-of-way, at relatively high speeds, boarded from high platforms level with the train car floors. This service may also be referred to as subway, elevated (railway), and metropolitan rapid transit (metro). It is called heavy rail due to its ability to carry a "heavy" (i.e., numerous) load of passengers.
- Light rail service is provided by single vehicles or short trains operating on tracks laid in city streets, or on exclusive rights-of-way. This service may also be referred to as streetcar or trolley service. It is called light rail due to its limitation to carrying a "light" load of passengers.

<sup>&</sup>lt;sup>1</sup> U.S. Government Accountability Office, *Rail Transit: Additional Federal Leadership Would Enhance FTA's State Safety Oversight Program*, GAO-06-821, July 2006, p. 1, http://www.gao.gov/new.items/d06821.pdf.

• Commuter rail service is provided by multicar trains, which may be either selfpowered or pulled by locomotives, operating on the nation's intercity rail network. Passengers board in stations. It is called commuter rail because the service is oriented toward people commuting from outlying suburban areas into the centers of metropolitan areas; service is typically concentrated during the morning and evening rush hours.

Of these three types of rail transit, heavy rail is the most heavily used, representing about 33% of all transit trips; commuter and light rail each represent about 4%. As mentioned, commuter rail safety is regulated by the Federal Railroad Administration, and is not considered in this report.

Characteristics	Heavy Rail	Light Rail	
Number of Agencies	15	33	
Unlinked Passenger Trips (Millions)	3,460	419	
Passenger Miles (Millions)	16,138	1,932	
Passenger Fares Collected (Millions)	\$3,346	\$311	
Total Expenses (Operating and Capital) (Millions)	\$10,849	\$4,211	
Revenue Vehicles Available	11,222	1,810	
Total Employees (Operating and Capital)	55,164	9,930	

#### Table I. Selected Characteristics of Heavy and Light Rail Transit Systems, 2007

Source: American Public Transportation Association (APTA), 2009 Fact Book, Table 28, p. 30.

Rail transit is operated by local (i.e., metropolitan) transit agencies. These agencies are responsible for the operation and maintenance, and the safety and security, of their rail systems. As the passenger fare and expense figures in **Table 1** indicate, these agencies are not able to cover their costs from passenger fares, and so require a combination of local, state, and federal funding to help cover their costs.

According to the Federal Transit Administration, the condition of the nation's transit systems has generally improved over the past decade, but substantial needs exist and there is significant variation from place to place. Improvement nationally in rail transit systems is in part due to the building of new rail systems in a number of cities, and expansions in others.<sup>2</sup> While the condition of rail transit systems nationally has improved, some older rail systems are in relatively poor condition. For example, in its recent report to Congress on transit rail modernization, FTA found that in the case of the seven agencies included in the study, representing some of the largest, but generally older rail systems (Chicago, Boston, New York, New Jersey, San Francisco, Philadelphia, and Washington, DC), 35% of the assets were in poor or marginal condition compared with less than 20% in the nation as a whole (excluding the seven study agencies).<sup>3</sup> Anecdotal evidence also suggests that overcrowding is a growing problem in some major transit systems during the peak-period, and that this problem may have worsened recently because of a

<sup>&</sup>lt;sup>2</sup> U.S. Department of Transportation, Federal Highway Administration and Federal Transit Administration, *2006 Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance,* Washington, DC, 2007, pp. 3-22 to 3-30, http://www.fhwa.dot.gov/policy/2006cpr/index.htm.

<sup>&</sup>lt;sup>3</sup> U.S. Department of Transportation, Federal Transit Administration, *Rail Modernization Study*, Washington, DC, April 2009, p. 2, http://www.fta.dot.gov/documents/Rail\_Mod\_Final\_Report\_4-27-09.pdf.

jump in ridership caused by high gasoline prices and service cuts due to fiscal problems at the state and local government level.

A number of reports have attempted to estimate future surface transportation infrastructure needs, including transit needs, based on current conditions and performance of the system, and future projected demands. Estimating future infrastructure needs involves many difficulties, but these reports have generally concluded that the nation's surface transportation infrastructure will require substantially more capital funding over the next few decades to deal with physical deterioration, congestion, and travel demand. For example, the National Surface Transportation Infrastructure Financing Commission estimates that as much as \$42 billion in capital spending may be needed annually to maintain current conditions and performance of all types of transit, and \$49 billion may be needed annually to improve conditions and performance. This compares with approximately \$11 billion in revenue that is currently generated for transit capital expenses by all levels of government.<sup>4</sup>

## The Safety Record of Rail Transit

Rail transit, and in particular heavy rail transit, is one of the safer forms of transportation. Partly this is due to its design. Since heavy rail systems generally run on a closed rail network, there is little potential for conflicts with other modes. By contrast, other forms of rail transit generally interact with other modes of transportation: light rail trains also generally run on closed rail network, but the rails are usually embedded in streets, and thus in their operation they can come into conflict with freight trains and intercity passenger rail trains, as well as motor vehicles at places where highways cross the rail network.<sup>5</sup> Nevertheless, attention to safety is a critical component of heavy rail operations, due to their mass (heavy rail train cars weigh around 40 tons), their speed of operation (up to 60 miles per hour), and the number of passengers they carry (each heavy rail car in multicar trains can typically hold over a hundred passengers).

In 2007, there were about 188 fatalities in rail transit out of a total of 43,000 fatalities attributable to all modes of transportation (the vast majority of deaths and injuries in transportation are highway related). Most (124) of those rail transit fatalities occurred in commuter rail operations; 32 occurred in heavy rail operations (and another 32 in light rail operations). Because so many more trips are made by heavy rail than commuter or light rail, when indexed to the number of passenger trips the rate of heavy rail fatalities is very small: less than 1 fatality per 100 million passenger trips for light rail and 30 per 100 million passenger trips for commuter rail.

Discerning and summarizing trends in rail transit safety is difficult for a number of reasons, including conflicting trends in different indicators; conflicting trends in different types of rail transit; the relative rarity of some events, such as fatalities; and other data issues such as the

<sup>&</sup>lt;sup>4</sup> National Surface Transportation Infrastructure Financing Commission, *Paying Our Way: A New Framework for Transportation Finance*, Washington, DC, February 2009, http://financecommission.dot.gov/Documents/ NSTIF\_Commission\_Final\_Report\_Mar09FNL.pdf.

<sup>&</sup>lt;sup>5</sup> Because of their interaction with freight and intercity passenger rail operations, commuter rail safety is regulated by the Federal Railroad Administration.

introduction in 2002 of new reporting thresholds for some types of transit safety data.<sup>6</sup> Nevertheless, it does appear that the number of fatalities per 100 million passenger trips in rail transit declined between 1990 and 2007, particularly in heavy rail transit (see **Figure 1**).



Figure 1. Rail Transit Safety, 1990-2007

**Source:** U.S. Department of Transportation, Federal Transit Administration, Transit Safety and Security Statistics, http://transit-safety.volpe.dot.gov/Data/Samis.asp.

## **Entities Responsible for the Safety of Rail Transit**

The primary responsibility for assuring the safety of rail transit systems lies with the local transit authorities who operate and maintain those systems. They are overseen and assisted by a number of agencies at the federal and state level.

In 1991, facing rising numbers of heavy rail incidents and at the urging of the National Transportation Safety Board (NTSB), Congress directed FTA to establish a safety oversight program for rail transit systems that would be managed by the states.<sup>7</sup> This program was developed based on rail safety guidelines that had been developed by the transit industry's

<sup>&</sup>lt;sup>6</sup> See U.S. Department of Transportation, Federal Transit Administration, *Rail Transit Safety Action Plan*, Washington, DC, September 2006, http://transit-safety.volpe.dot.gov/publications/sso/SAP/pdf/sap.pdf.

<sup>&</sup>lt;sup>7</sup> In the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), P.L. 102-240, Section 3029, codified at 49 USC §5330.

national association, the American Public Transportation Association (APTA), and based on recommendations by the NTSB. $^8$ 

The program covers rail fixed guideway systems that are not otherwise regulated by the Federal Railroad Administration, and that receive funding under FTA's Urbanized Areas formula program. Under this program, the primary responsibility for oversight of rail transit safety lies with the states; FTA requires states to appoint an agency to oversee the safety of rail transit systems, and requires transit agencies to comply with the oversight of these agencies. FTA sets procedural requirements for the program and oversees the state agencies which are overseeing the local transit agencies. FTA's rail safety website lists 48 rail transit systems under 26 State Safety Oversight Agencies.

### The Congressional Role in Rail Transit Safety

While federal regulation of rail transit operations is limited, given the number of citizens who ride rail transit and the amount of money that Congress provides in support of rail transit, the federal government is interested in the rail transit mode, particularly its safety. Congress has directed the federal government to participate in a number of activities to promote rail transit safety. These activities were most recently reviewed by Congress in 2006, when the House Committee on Transportation and Infrastructure's Subcommittee on Highways, Transit and Pipelines held a hearing on FTA's State Safety Oversight Program.<sup>9</sup> In addition to its oversight powers, Congress also has the power to revise the State Safety Oversight Program, as it did in 2005.<sup>10</sup> Congress could also, through its legislative authority, expand FTA's regulatory authority over rail transit safety.

### The Federal Transit Administration's Role in Rail Transit Safety

In contrast to the strong regulatory role played by the Federal Railroad Administration in promoting safety on the nation's freight and intercity passenger rail network, FTA has a more limited regulatory role in promoting safety on the nation's rail transit systems. Nevertheless, FTA has several roles in ensuring rail transit safety.

#### Funding

The federal government does not provide funding to states or transit agencies specifically for rail transit safety initiatives. However, FTA does offer safety outreach and training to safety professionals within the transit industry at no charge. FTA's safety programs also provide funding for drug and alcohol testing and guidance.<sup>11</sup> FTA also provides significant amounts of capital

<sup>&</sup>lt;sup>8</sup> Testimony of Susan E. Schruth, Associate Administrator for Program Management, Federal Transit Administration, before the U.S. Congress, House Committee on Transportation and Infrastructure, Subcommittee on Highways, Transit and Pipelines, *The Federal Transit Administration's State Safety Oversight Program*, 109<sup>th</sup> Cong., 2<sup>nd</sup> sess., July 19, 2006, 109-90 (Washington: GPO, 2007), p. 51.

<sup>&</sup>lt;sup>9</sup> U.S. Congress, House Committee on Transportation and Infrastructure, Subcommittee on Highways, Transit and Pipelines, *The Federal Transit Administration's State Safety Oversight Program*, 109<sup>th</sup> Cong., 2<sup>nd</sup> sess., July 19, 2006, 109-90 (Washington: GPO, 2007).

<sup>&</sup>lt;sup>10</sup> In the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (P.L. 109-59).

<sup>&</sup>lt;sup>11</sup> U.S. Department of Transportation, Federal Transit Administration, *Budget Estimates Fiscal Year 2010*, p. 142, (continued...)

funding to construct and maintain rail transit systems, which can indirectly support safety efforts. And states can receive funding through the New Starts program for the costs of establishing a new state safety oversight office.<sup>12</sup> Finally, FTA provides funding to APTA for work on developing standards for rail safety, among other areas.

#### Oversight

While state oversight agencies have the primary responsibility for overseeing the safety plans and performance of rail transit agencies, FTA is responsible for overseeing the work of the oversight agencies. It sets minimum procedural standards (e.g., that transit agencies must have safety plans, and that these plans must be audited by the state safety oversight agencies) and monitors the implementation of those standards. It works with the state oversight agencies to assist them with implementation and reporting requirements. FTA also convenes an annual meeting of rail transit safety officials, including representatives of both state oversight offices and rail transit agencies. The oversight agencies are required to submit annual reports to FTA.

#### Audits

FTA audits the state safety oversight offices on a three-year cycle. These audits are intended to ensure that the state offices are overseeing the safety planning and implementation of the local rail transit agencies, and are implementing the minimum safety requirements prescribed by FTA.

In its winter 2009 Rail Transit Safety Quarterly Newsletter, FTA summarized the results of audits of 19 oversight agencies and the rail transit agencies in their jurisdictions conducted since May 2006.<sup>13</sup> FTA found 165 instances of non-compliance with the regulatory requirements among eight program elements, primarily in the areas of accident notification, investigating, and reporting (31 findings; 16% of the total), system safety program plans and security plans (27 findings; 16%), internal safety audits (26 findings; 16%), and corrective action plan development and tracking (25 findings; 15%).<sup>14</sup>

#### Training

FTA has stated that it has worked with the Transportation Safety Institute (TSI)<sup>15</sup> and the National Transit Institute (NTI)<sup>16</sup> to ensure that courses are available in the technical aspects of rail safety, and has encouraged state safety oversight program managers to complete the TSI safety and

<sup>(...</sup>continued)

http://www.dot.gov/budget/2010/budgetestimates/fta.pdf.

<sup>&</sup>lt;sup>12</sup> Statement of Robert Sedlock, Manager, Fixed Guideway Safety Oversight, New Jersey Department of Transportation, before the U.S. Congress, House Committee on Transportation and Infrastructure, Subcommittee on Highways, Transit and Pipelines, *The Federal Transit Administration's State Safety Oversight Program*, 109<sup>th</sup> Cong., 2<sup>nd</sup> sess., July 19, 2006, 109-90 (Washington: GPO, 2007).

<sup>&</sup>lt;sup>13</sup> FTA made revisions to the State Safety Oversight Program regulation which took effect on May 1, 2006.

<sup>&</sup>lt;sup>14</sup> FTA, Rail Transit Safety Quarterly Newsletter, Winter 2009, p. 4-6, http://transit-safety.volpe.dot.gov/Safety/Rail/ Newsletters/Winter2009/html/Winter2009.html.

<sup>&</sup>lt;sup>15</sup> The Transportation Safety Institute is part of the Research and Innovative Technology Administration (RITA) of the U.S. Department of Transportation.

<sup>&</sup>lt;sup>16</sup> The National Transit Institute is part of the Rutgers University Transportation Center and is funded by FTA.

security certification program as well as take advantage of NTI course offerings. These courses are free to representatives of both state safety oversight agencies and rail transit agencies.

#### **Technical Assistance**

FTA published a *Rail Transit Safety Action Plan* in 2006, which identifies its "Top 10 Safety Action Priorities."<sup>17</sup> Its Safety and Security Office's rail safety website<sup>18</sup> provides information, guidance, standards, and recommended practices for addressing each of these priorities. FTA testified in 2006 that it planned to do annual updates of this plan; a summary of the 2008 update was published in the fall 2008 issue of its Rail Transit Safety Quarterly Newsletter.<sup>19</sup>

Priority Action	Rank in 2006 Rail Safety Action Plan	Rank in 2008 Rail Safety Action Plan
Improve Safety of Transit Workers, Including Right-of-Way Safety and Fatigue Management	4, 6	Ι
Increase Resources and Training Devoted to Safety Oversight	NA	2
Improve Compliance with Operating and Maintenance Rules	3	3
Improve Maintenance Oversight	NA	4
Reduce Collisions with Other Vehicles	I	5
Reduce Collisions with Pedestrians and Trespassers	2	6
Reduce Unsafe Acts by Passengers in Transit Stations	5	7
Improve Integrity, Collection, and Analysis of Safety Data	10	8
Improve Emergency Management and Coordination Capabilities	9	9
Improve Quality of Internal Safety Audits	NA	10
Improve Safety for Passengers with Disabilities	7	NA
Remove Debris from Tracks and Stations	8	NA

#### Table 2. FTA Top Ten Rail Safety Action Priorities, 2006 and 2008

Source: Federal Transit Administration, Rail Transit Safety Action Plan, 2006 and 2008 editions.

**Notes:** For 2008, FTA combined two 2006 priority actions – Reducing the Impacts of Fatigue on Transit Workers and Improving Safety of Transit Workers – into one priority action.

### The National Transportation Safety Board's Role in Rail Transit Safety<sup>20</sup>

The NTSB has the authority to investigate rail transit safety incidents. NTSB is an independent agency of the federal government with primary responsibility for investigating transportation

<sup>&</sup>lt;sup>17</sup> Available at http://transit-safety.volpe.dot.gov/Publications/order/singledoc.asp?docid=503.

<sup>&</sup>lt;sup>18</sup> http://transit-safety.volpe.dot.gov/Safety/Oversight.asp.

<sup>&</sup>lt;sup>19</sup> FTA, Rail Transit Safety Quarterly Newsletter, fall 2008, "Safety Action Plan," p. 1-4, http://transitsafety.volpe.dot.gov/Safety/Rail/Newsletters/2008\_10/html/Rail\_Transit\_Nwsltr\_Fall\_2008.html.

<sup>&</sup>lt;sup>20</sup> This section was written by Bart Elias, Specialist in Aviation Policy.

accidents. The NTSB is statutorily required to investigate, or have investigated, all railroad accidents in which there is a fatality or substantial property damage, and all railroad accidents involving passenger trains. It may elect to investigate certain other accidents, including accidents involving mass transit rail systems, when the Board decides that the accident is catastrophic, involves problems of a recurring nature, or if the investigation is expected to bring about safety improvements. Often, NTSB's investigations result in recommendations for safety improvements, but NTSB has no power to enforce its recommendations.

The NTSB uses a "party" process in conducting its investigations, allowing entities that can contribute technical expertise and specific knowledge regarding the circumstances of an accident to participate in the fact-finding phase of an investigation. Parties to an investigation of a transit rail system may include representatives from the transit system, the railcar manufacturer, track engineers and safety inspectors, and train and system operators. The NTSB must accommodate participation from other federal entities, including U.S. Department of Transportation (DOT) modal regulatory components like the FTA, and does so by granting these federal entities status as a party to the investigation. While the various entities or parties, including federal, state, local, and private industry participants, are directly involved in the fact-gathering portion of the investigation, the NTSB retains sole responsibility for the analysis, investigative findings, and determination of probable cause.

### State Safety Oversight Agencies

Each state with a rail transit system is required to appoint an oversight agency responsible for overseeing the safety program of the transit system.<sup>21</sup> Typically (in 17 of 24 cases) these are DOTs; in three cases they were utilities commissions or regulators.<sup>22</sup> Federal regulations give these agencies the authority to require local transit agencies to comply with certain rail safety practices; however, neither federal regulation nor law provides the oversight agencies with any authority or ability to enforce compliance with those practices. A few states have given their oversight agencies some enforcement power.

#### Oversight

The state oversight agencies are required to establish procedural standards for rail safety to be followed by rail transit agencies under their oversight. They are also responsible for ensuring that those rail transit agencies develop and implement safety plans reflecting those standards and procedures. To this end, the oversight agencies are required to perform on-site audits of the rail transit agencies every three years. And the oversight agencies are responsible for ensuring that rail transit accidents are investigated and that a plan to address the factors that contributed to an accident is prepared.

In 2006, GAO found that 11 of the 24 state oversight agencies surveyed (there were 25 state oversight agencies; one did not respond to the survey) reported devoting the equivalent of less than one person working half-time on oversight program functions.<sup>23</sup> (GAO, p. 19)

<sup>&</sup>lt;sup>21</sup> The requirements for the State Safety Oversight Program are laid out at 49 CFR §659.

<sup>&</sup>lt;sup>22</sup> U.S. Government Accountability Office, *Rail Transit: Additional Federal Leadership Would Enhance FTA's State Safety Oversight Program*, GAO-06-821, July 2006, http://www.gao.gov/new.items/d06821.pdf.

<sup>&</sup>lt;sup>23</sup> U.S. Government Accountability Office, *Rail Transit: Additional Federal Leadership Would Enhance FTA's State* (continued...)

Estimated FTEs	0.5 or less	0.6-1.0	1.1-3.0	3.1-5.0	Over 5.0	Total
Number of oversight agencies	11	5	6	I	I	24

# Table 3. Estimated Full-time Equivalents (FTEs) Used by State Oversight Agenciesto Oversee Transit Agency Safety and Security

**Source:** U.S. Government Accountability Office, *Rail Transit: Additional Federal Leadership Would Enhance FTA's State Safety Oversight Program*, GAO-06-821, July 2006, http://www.gao.gov/new.items/d06821.pdf.

#### Inspections

State oversight agencies are required by the regulations of the State Safety Oversight Program to perform an on-site review of safety practices and conditions at each rail transit agency under their jurisdiction every three years. Due to staffing and expertise limitations, these reviews are typically conducted by contractors. This review includes an inspection of the vehicle and infrastructure safety conditions.

## **Transit Agencies**

As the people directly responsible for operating and maintaining the rail transit systems, local transit agencies have the primary responsibility for the safety of their systems. FTA rules require these agencies to develop safety plans, report safety incidents to their oversight agencies, and comply with other requirements that their state oversight agency may establish.

In addition to the safety requirements established by FTA and overseen by the state safety agencies, transit agencies can also take advantage of programs administered by APTA. APTA's members have developed a voluntary Rail Safety Audit Program that assesses how well a transit agency is implementing its own safety plan. APTA's members have also developed a Manual for the Development of Rail Transit Safety Program. This manual provides standards and best practices for rail transit safety that have been developed by transit agencies. These programs predate FTA's State Safety Oversight Program, and served as a source of ideas in the development of the program.

Local transit agencies are responsible for inspecting their equipment and facilities. FTA does not perform safety inspections of transit agencies, and the state oversight agencies are only required to perform an on-site inspection of safety conditions every three years. In addition to their own self-inspections, transit agencies can request that APTA organize a "peer review" safety inspection of their operation.

<sup>(...</sup>continued)

Safety Oversight Program, GAO-06-821, July 2006, http://www.gao.gov/new.items/d06821.pdf.

## **Issues for Congress**

In its 2006 review of the State Safety Oversight Program,<sup>24</sup> GAO found that most transit agencies surveyed felt that the program was effective in promoting safety. Specifically, the transit agencies said that the program helps them to identify systemic safety issues, encourages a consistent approach to safety nationwide, and exerts influence on transit agency boards of directors and senior management to attend to safety issues.<sup>25</sup> Specific measures of the program's effectiveness are difficult to come by.

In the GAO report, and in a 2006 congressional hearing, several issues were raised where it was felt that there was room for improvement. These included how to determine whether the program was effective; whether the state oversight agencies had sufficient expertise, staff resources, and funding to carry out their responsibilities; whether FTA and state oversight agencies needed additional enforcement authority; and how a state-oriented safety oversight program dealt with oversight of rail transit agencies operating in more than one state. Congress could consider some of these issues for legislative action or during its oversight activities.

### Measuring the Benefits of the Program

The Government Performance and Results Act (GPRA, P.L. 103-62) directs federal agencies to develop annual performance plans and reports. FTA testified at the 2006 hearing on its State Safety Oversight Program that it was committed to establishing strategic goals and performance measures for the program by the end of FY2006, and had contracted with a university to develop performance measures in addition to accident data that would allow FTA to assess the benefits of the program. The strategic goals and performance measures were included in FTA's 2006 Rail Safety Action Plan, and were updated in 2008. The development of the additional performance measures is still ongoing.

## **Expertise of State Safety Oversight Agencies**

Both GAO and representatives of state oversight agencies have noted that the level of expertise and the number of people assigned to safety oversight – and thus their ability to oversee transit agencies – varies among the state agencies. GAO found that officials from 16 of the 24 (out of 25) state oversight agencies interviewed said that they did not have enough qualified staff to manage their programs.<sup>26</sup> In some agencies, safety staff are required to have years of experience in rail transit; in others, safety duties have been assigned to whoever was available. Many state agencies contract with consultants to carry out their oversight tasks.

FTA provides courses in aspects of rail transit safety that allow state oversight agency staff to get certified, but representatives of state safety oversight agencies have asked FTA to also provide

<sup>&</sup>lt;sup>24</sup> U.S. Government Accountability Office, *Rail Transit: Additional Federal Leadership Would Enhance FTA's State Safety Oversight Program*, GAO-06-821, July 2006, http://www.gao.gov/new.items/d06821.pdf.

<sup>&</sup>lt;sup>25</sup> U.S. Government Accountability Office, *Rail Transit: Additional Federal Leadership Would Enhance FTA's State Safety Oversight Program*, GAO-06-821, July 2006, pp. 23-24, http://www.gao.gov/new.items/d06821.pdf.

<sup>&</sup>lt;sup>26</sup> U.S. Government Accountability Office, *Rail Transit: Additional Federal Leadership Would Enhance FTA's State Safety Oversight Program*, GAO-06-821, July 2006, p. 6, http://www.gao.gov/new.items/d06821.pdf.

courses in safety oversight, and to create a standard curriculum. This, along with funding for the agencies (see next section), would be similar to the approach taken by other DOT administrations whose safety oversight regimes also provide a role for state employees.

### Staff Resources of State Safety Oversight Agencies

In some agencies, several people work full-time on safety issues; in others, there are no full-time safety staff, with safety oversight duties contracted out. Some state oversight agencies have seen their responsibilities grow, as additional rail transit systems have been built, without corresponding increases in their staffing. **Table 3** shows the staffing dedicated to safety (and security) oversight in the state agencies. And while the number of rail transit systems in a state varies from one to as many as six, the level of staff resources in an oversight agency is not necessarily correlated with the number of systems to be overseen.<sup>27</sup> For example, the Washington Metropolitan Area Transit Authority (WMATA) has had the second-highest level of heavy rail transit ridership among all heavy rail transit operations since at least 1995, yet GAO reported that as of 2006 its oversight agency had no full-time staff assigned to safety oversight, and its safety oversight duties were contracted out.<sup>28</sup>

### Funding of State Safety Oversight Agencies

Staffing levels are related in part to the funding situation of state oversight agencies. In the current economic climate, most states are having budget difficulties and many transit agencies are facing service cuts due to budget problems. But in 2006, even before the current economic difficulties, FTA noted that state safety oversight agencies were saying that they felt they did not have the resources they needed to do a good job.<sup>29</sup> Representatives of state safety offices have urged Congress to provide funding for the rail transit safety oversight agencies as they have for state agencies that participate in promoting the safety of intercity rail and commercial motor vehicle operations.

## **Additional Enforcement Authority**

The state safety oversight program regulation provides no enforcement power to the state safety oversight offices, and very little enforcement power to FTA: only the option of withholding up to 5% of a transit agency's urbanized area formula grant if the state is not meeting the requirements of the oversight program. Some states have given their safety offices enforcement authority (e.g., some can order rail transit agencies to suspend service until a safety issue can be addressed), but others have not given the oversight agency any enforcement power. The NTSB has recommended

<sup>&</sup>lt;sup>27</sup> U.S. Government Accountability Office, *Rail Transit: Additional Federal Leadership Would Enhance FTA's State Safety Oversight Program*, GAO-06-821, July 2006, p. 31, http://www.gao.gov/new.items/d06821.pdf.

<sup>&</sup>lt;sup>28</sup> As of early 2009, one of the jurisdictions responsible for oversight of WMATA, Virginia, assigned one FTE from its Department of Rail and Public Transportation to support WMATA's oversight agency (that person is now the Vice-Chair of the oversight agency). Personal communication from the Chair of the Tri-State Oversight Committee, June 27, 2009.

<sup>&</sup>lt;sup>29</sup> Testimony of Susan E. Schruth, Associate Administrator for Program Management, Federal Transit Administration, before the U.S. Congress, House Committee on Transportation and Infrastructure, Subcommittee on Highways, Transit and Pipelines, *The Federal Transit Administration's State Safety Oversight Program*, 109<sup>th</sup> Cong., 2<sup>nd</sup> sess., July 19, 2006, 109-90 (Washington: GPO, 2007).

that FTA develop a plan to provide additional authority and resources to the state safety oversight agencies.<sup>30</sup> Safety oversight agency representatives have suggested that the program be provided with additional enforcement powers similar to those given to safety programs of other DOT administrations (e.g., the power to issue emergency orders, defect citations, and civil penalties).

## The Challenge of Overseeing Multi-State Transit Systems

Given that the safety oversight program is based on the work of state oversight agencies, the situation of rail transit agencies that operate in more than one state can pose a problem. In a 2006 report, GAO described the oversight situation of three rail transit systems that operate in more than one state, and thus require cooperation between the oversight agencies of different states:

- the MetroLink light rail system in St. Louis, which operates in Illinois and Missouri;
- the Port Authority Transit Corporation heavy rail system in Philadelphia, which operates in New Jersey and Pennsylvania; and
- the Metrorail heavy rail system of the Washington Metropolitan Area Transit Authority (WMATA), which operates in the District of Columbia, Maryland, and Virginia.

GAO reported that while the oversight programs of the St. Louis and Philadelphia systems appeared to be working well, WMATA's oversight program "experienced difficulty obtaining funding, responding to FTA information requests, and ensuring audit findings are addressed."<sup>31</sup>

WMATA's oversight agency, the Tri-State Oversight Committee, was formed to represent all three juridictions, with two members from each jurisdiction. The six members are typically employees of the states' and DC's departments of transportation, not full-time commissioners on the Oversight Committee, and the Oversight Committee did not have a full-time staff member until after 2005. The Oversight Committee contracts with a consultant to perform the required audits of WMATA, and to ensure that audit recommendations are responded to.<sup>32</sup> Decisions of the Oversight Committee require agreement of a majority of the members, including the agreement of at least one member from each jurisdiction. GAO observed that "reaching such majority agreements can be time consuming since all members of [the Oversight Committee] have other primary responsibilities."<sup>33</sup> In addition, the Oversight Committee has no dedicated funding source; funding for the Oversight Committee must be approved by all three jurisdictions, a complex and time-consuming process that virtually rules out receiving any supplemental funding, should the Oversight Committee exhaust its funding before the end of its fiscal year.

<sup>&</sup>lt;sup>30</sup> National Transportation Safety Board, Recommendation R-07-10, http://www.ntsb.gov/Recs/letters/2007/R07\_9\_12.pdf.

<sup>&</sup>lt;sup>31</sup> GAO-06-821, p. 38.

<sup>&</sup>lt;sup>32</sup> This was reported by GAO in its 2006 report, and is still the case. Personal communication from the Chair of the Tri-State Oversight Committee, June 27, 2009.

<sup>&</sup>lt;sup>33</sup> GAO-06-821, p. 42.

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