



March 2018

RAIL TRANSIT

Federal Transit Administration Can Strengthen Safety Oversight by Improving Guidance to States

Accessible Version

GAO Highlights

Highlights of [GAO-18-310](#), a report to congressional requesters

Why GAO Did This Study

In 2012 and 2015, DOT was provided with additional authority to oversee the safety of rail transit. Within DOT, FTA is now implementing this authority. The DOT's Office of Inspector General has reported, though, that FTA faces challenges in carrying out its enhanced safety oversight. FRA, also in DOT, has long carried out safety oversight of freight, intercity passenger, and commuter railroads.

GAO was asked to review various rail safety and oversight issues, including the differences between FRA's and FTA's rail safety oversight programs. This report examines (1) key characteristics of FRA's and FTA's rail safety oversight programs and (2) strengths and limitations of FRA's and FTA's rail safety oversight programs. GAO assessed FRA's and FTA's information about rail safety oversight activities against guidance from the Office of Management and Budget, leading practices developed by the transit industry, and federal standards for internal control. GAO also interviewed stakeholders, including rail operators chosen based on mode, size, and location.

What GAO Recommends

GAO recommends that FTA (1) create a plan, with timeline, for developing risk-based inspection guidance for state safety agencies, and (2) develop and communicate a method for how FTA will monitor whether state safety agencies' enforcement practices are effective. DOT agreed with our recommendations. DOT, NTSB, and WMATA provided technical comments that we incorporated as appropriate.

View [GAO-18-310](#). For more information, contact Mark Goldstein at (202) 512-2834 or goldsteinm@gao.gov.

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Federal Transit Administration Can Strengthen Safety Oversight by Improving Guidance to States

What GAO Found

The Department of Transportation's (DOT) Federal Railroad Administration (FRA) and Federal Transit Administration (FTA) carry out different approaches to rail safety oversight. FRA has a more centralized safety oversight program for railroads, while FTA's program for oversight of rail transit safety largely relies on state safety agencies to monitor and enforce rail transit safety, as established in federal statute. Key characteristics of both programs include: (1) safety regulations, (2) inspections and other oversight activities, and (3) enforcement mechanisms to ensure that safety deficiencies are addressed (see figure).

Key Characteristics of the Federal Railroad Administration's (FRA) and Federal Transit Administration's (FTA) Rail Safety Oversight Programs

Agency		Safety regulations	Oversight activities	Enforcement mechanisms
	Current status	Has extensive regulations covering various aspects of railroad industry	Conducts safety compliance inspections and investigations	Utilizes a variety of tools, including civil penalties, to resolve safety issues
	Future plans	Update existing regulations	Continue to use and update risk-based model to guide inspections	Enhance effectiveness of tools to improve safety, including increased penalties
	Current status	Has regulations implementing statutory changes to safety program	Relies on states to conduct safety oversight activities, though it now has inspection authorities	Relies on state safety agencies to enforce safety and monitors these agencies for compliance
	Future plans	Assess specific areas to determine need for safety regulations	Recommend that state safety agencies develop risk-based inspection programs	Require that state safety agencies develop stronger enforcement mechanisms

Source: GAO analysis of FRA and FTA information. | GAO-18-310

There are strengths and limitations to FRA's and FTA's approaches to their safety oversight missions, including how the two agencies develop safety regulations, conduct inspections, and carry out enforcement. The National Transportation Safety Board has reported, and stakeholders GAO spoke with generally agreed, that strengths of FRA's rail safety oversight program include its safety regulations, its risk-based inspection program, and its enforcement authorities. FRA also has potential limitations in its oversight framework, though, such as difficulty evaluating the effectiveness of its enforcement mechanisms. FTA has made some progress implementing changes to the rail transit safety program. However, FTA has not provided all the necessary guidance and support to states' safety agencies to ensure they develop appropriate and effective rail transit safety inspection programs. In particular, FTA has not provided states with guidance on how to develop and implement risk-based inspection programs. Though FTA has said that it will develop such guidance, it does not have a plan or timeline to do so. Without guidance from FTA on how to develop and carry out risk-based inspections, state safety agencies may not allocate their limited resources efficiently, and important safety issues may go undetected. In addition, FTA has not developed a process or methodology to evaluate whether state safety agency enforcement authorities and practices are effective. Without clear evidence that state safety agencies' enforcement is effective, states and FTA may not be able to compel rail transit operators to remedy safety deficiencies. As a result, deficiencies may remain for long periods, potentially contributing to safety incidents.

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Abbreviations

DOT	Department of Transportation
FAST Act	Fixing America's Surface Transportation Act

FRA	Federal Railroad Administration
FTA	Federal Transit Administration
MAP-21	Moving Ahead for Progress in the 21st Century Act
NTSB	National Transportation Safety Board
OECD	Organisation for Economic Co-operation and Development
OIG	Office of Inspector General
OMB	Office of Management and Budget
TCRP	Transit Cooperative Research Program
WMATA	Washington Metropolitan Area Transit Authority

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March 20, 2018

The Honorable Trey Gowdy
Chairman
The Honorable Elijah E. Cummings
Ranking Member
Committee on Oversight and Government Reform
House of Representatives

The Honorable Mark Meadows
Chairman
The Honorable Gerald E. Connolly
Ranking Member
Subcommittee on Government Operations
Committee on Oversight and Government Reform
House of Representatives

The Honorable Tammy Duckworth
United States Senate

Until recent years, safety oversight of public transportation systems has been largely the responsibility of state entities. In 2012, the Moving Ahead for Progress in the 21st Century Act (MAP-21) provided the United States Department of Transportation (DOT) with additional authority and responsibilities to oversee the safety of the nation's rail public transportation systems.¹ Within DOT, the Federal Transit Administration (FTA) is now implementing this authority.² In 2015, the Fixing America's Surface Transportation Act (FAST Act) further enhanced federal safety oversight authority by, among other things, explicitly allowing FTA to

¹ The term "public transportation" is defined as regular, continuing shared-ride surface transportation services that are open to the general public or open to a segment of the general public defined by age, disability, or low income. 49 U.S.C. § 5302(14). This report is specifically concerned with rail fixed guideway public transportation systems, which is defined as any fixed guideway system that uses rail, is operated for public transportation, is within the jurisdiction of a state, and is not subject to the jurisdiction of the Federal Railroad Administration, or any such system in engineering or construction. Throughout this report, we refer to these rail fixed guideway systems as "rail transit."

² The additional authority and responsibilities were granted to the Secretary of Transportation, who has delegated them to FTA. Throughout the rest of this report we refer to those authorities as FTA's.

assume direct safety oversight of a state's rail transit systems. While federal oversight authority of rail transit safety has recently been expanded, the Federal Railroad Administration (FRA), also in DOT, has long carried out safety oversight of freight, intercity passenger, and commuter railroads in the U.S. that operate on what is known as the general railroad system of transportation (general system).³

Following high-profile accidents on the Washington Metropolitan Area Transit Authority (WMATA) Metrorail system in June 2009 and January 2015, FTA assumed temporary direct oversight of WMATA's rail system in October 2015. As a result of its review of a January 2015 WMATA Metrorail accident, the National Transportation Safety Board (NTSB) recommended in that same year that DOT seek legal authority for FRA to assume safety oversight over WMATA's rail system.⁴ According to NTSB, which is an independent federal agency that seeks to advance transportation safety primarily through accident investigations, FRA is better suited to providing safety oversight for WMATA's rail system because FRA has uniform safety regulations, an experienced inspection staff, and the ability to assess civil penalties for safety violations. DOT disagreed with NTSB that the most urgent and effective solution was to transfer safety oversight of WMATA's rail system to FRA. The DOT Office of Inspector General (OIG) also issued a report in 2016 about FTA's challenges in carrying out its enhanced safety oversight, including challenges addressing its safety oversight personnel and resource needs and establishing robust safety performance criteria and enforceable standards.⁵ We have also reported that FRA has faced its own challenges in recent years, such as ensuring that it has enough inspectors for its safety oversight workload.⁶

³ Throughout this report, we refer to freight, intercity passenger, and commuter railroads under the jurisdiction of FRA as "railroads."

⁴ NTSB, Safety Recommendation, R-15-31 and -32 (Urgent), September 30, 2015. NTSB officials told us that this recommendation could possibly apply to other rail transit systems given their overall concerns about rail transit safety.

⁵ DOT OIG, *Improvements in FTA's Safety Oversight Policies and Procedures Could Strengthen Program Implementation and Address Persistent Challenges*, ST-2017-004 (Washington, D.C.: Nov. 2, 2016).

⁶ GAO, *Rail Safety: Improved Human Capital Planning Could Address Emerging Safety Oversight Challenges*, [GAO-14-85](#) (Washington, D.C.: Dec. 9, 2013).

In light of these issues and NTSB's recommendation, you asked us to review various safety and oversight issues at WMATA Metrorail and FTA, as well as differences between FRA's and FTA's rail safety oversight programs. In consultation with your office and to assist efforts to ensure effective rail transit safety oversight of WMATA and other rail transit providers, we focused this review on examining (1) key characteristics of FRA's and FTA's rail safety oversight programs and (2) strengths and limitations of FRA's and FTA's rail safety oversight programs.

In addressing the research objectives, we focused on three characteristics of DOT's rail safety oversight, as implemented by FRA and FTA: (1) developing safety regulations, (2) conducting inspections and oversight, and (3) using enforcement mechanisms. We focused on these aspects of rail safety oversight because they are the areas highlighted by NTSB as strengths of FRA's safety oversight program.

To address our research objectives, we gathered information about FRA's and FTA's rail safety oversight activities and assessed it against guidance and leading practices. We reviewed recent statutes that establish DOT's rail safety oversight authority as well as applicable implementing regulations. We also reviewed FRA's and FTA's documentation regarding safety oversight policies and practices. We also interviewed officials from FRA and FTA about their rail safety oversight activities. We assessed the information on safety regulations gathered from agency documents and interviews against official federal government guidance, issued by the Office of Management and Budget (OMB), about the development of federal regulations.⁷ We also assessed the information gathered from agency documents and interviews about inspections against leading practices developed by the Organisation for Economic Co-operation and Development (OECD)⁸ and the Transportation Research Board's Transit Cooperative Research Program (TCRP).⁹ For the OECD, which has

⁷ OMB, *Circular A-119: Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities* (Washington, D.C.: Jan. 27, 2016). OMB, *Circular A-4: Regulatory Analysis* (Washington, D.C.: Sept. 17, 2003). We also examined the guidance provided about using performance-based regulations in Executive Order 12866 of September 30, 1993.

⁸ OECD, *Best Practice Principles for Regulatory Policy: Regulatory Enforcement and Inspections* (Paris: OECD Publishing, 2014).

⁹ TCRP, *Report 149: Improving Safety-Related Rules Compliance in the Public Transportation Industry* (Washington, D.C.: 2011). TCRP, *Report 174: Improving Safety Culture in Public Transportation* (Washington, D.C.: 2015).

played a leading role in the international community to promote regulatory reform and the implementation of sound regulatory practices, we identified reports specifically about regulatory enforcement and inspections. For the TCRP, which serves as one of the principal means by which the transit industry can develop innovative near-term solutions, we identified the reports specifically about rail safety and rail oversight. We also assessed the information gathered from agency documents and interviews about inspections and enforcement against federal internal control standards about risk assessments as well as agency information and communication.¹⁰

To further examine FRA and FTA rail safety oversight activities, we identified and summarized the strengths and limitations of FRA's and FTA's current safety oversight programs as identified in past studies. Specifically, we assessed the findings from our past work¹¹ as well as from DOT OIG¹² and NTSB reports.¹³

To further examine FRA's safety oversight activities specifically, we assessed the statistical model used as part of FRA's National Inspection Plan. The National Inspection Plan uses safety risk information, including as part of a quantitative model, to help target FRA inspection resources to areas of higher risk. We assessed the model based on FRA

¹⁰ GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: September 2014).

¹¹ GAO, *Rail Transit: Additional Federal Leadership Would Enhance FTA's State Safety Oversight Program*, [GAO-06-821](#) (Washington, D.C.: July 26, 2006); GAO, *Rail Safety: The Federal Railroad Administration Is Taking Steps to Better Target Its Oversight, but Assessment of Results Is Needed to Determine Impact*, [GAO-07-149](#) (Washington, D.C.: Jan. 26, 2007); and [GAO-14-85](#).

¹² DOT OIG, *Challenges to Improving Oversight of Rail Transit Safety and Implementing an Enhanced Federal Role*, MH-2012-048 (Washington, D.C.: Jan. 31, 2012). DOT OIG, *FRA is Nearing Completion of Rules required by the Rail Safety Improvement Act, but Needs to Improve Oversight*, CR-2013-070 (Washington, D.C.: Apr. 17, 2013). DOT OIG, ST-2017-004.

¹³ NTSB, *Organizational Factors in Metro-North Railroad Accidents*, Special Investigation Report NTSB/SIR-14/04 (Washington, D.C.: Nov. 19, 2014). NTSB, *Derailment of Amtrak Passenger Train 188, Philadelphia, Pennsylvania, May 12, 2015*, Accident Report NTSB/RAR-16/02 (Washington, D.C.: May 17, 2016). NTSB, *Washington Metropolitan Area Transit Authority L'Enfant Plaza Station Electrical Arcing and Smoke Accident, Washington, D.C., January 12, 2015*, Accident Report NTSB/RAR-16/01 (Washington, D.C.: May 3, 2016). NTSB, *Safety Recommendation Report: Rail Transit Vehicle Safe Braking*, Recommendation No.: R-17-04 (Washington, D.C., May 1, 2017).

documentation and interviews with FRA officials as well as findings from our previous work.¹⁴

Finally, we interviewed a variety of stakeholders, including rail operators and organizations, about the strengths and limitations of FRA's and FTA's rail safety oversight activities.¹⁵ Specifically, we interviewed railroad officials from Amtrak, BNSF Railway, Long Island Rail Road, Metro-North Commuter Railroad, New Jersey Transit, Port Authority Trans Hudson, and Union Pacific Railroad. We also interviewed rail transit officials from Dallas Area Rapid Transit, Los Angeles County Metropolitan Transportation Authority, New York City Transit, San Francisco Municipal Railway, and WMATA. We selected these railroads and rail transit operators based on their modes of operation,¹⁶ systems' size and age, and geographic location. Though we believe these railroads and rail transit operators provided relevant and diverse perspectives on rail safety oversight, the information gathered from these entities is not generalizable to all rail operators. To further understand and assess rail transit safety oversight specifically, we also interviewed officials from state safety agencies that oversee the rail transit operators interviewed. Finally, we interviewed officials from stakeholder organizations, including the Association of American Railroads, American Association of State Highway and Transportation Officials, American Federation of Labor and Congress of Industrial Organizations, American Public Transportation Association, and National Association of Railroad Passengers.

We conducted this performance audit from April 2017 to March 2018 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that

¹⁴ See in particular the discussion of statistical modeling in GAO, *Motor Carriers: Better Information Needed to Assess Effectiveness and Efficiency of Safety Interventions*, [GAO-17-49](#) (Washington, D.C.: Oct. 27, 2016); GAO, *Drinking Water: Additional Data and Statistical Analysis May Enhance EPA's Oversight of the Lead and Copper Rule*, [GAO-17-424](#) (Washington, D.C.: Sept. 1, 2017); and GAO, *Agricultural Conservation: USDA Should Improve Its Process for Allocating Funds to States for the Environmental Quality Incentives Program*, [GAO-06-969](#) (Washington, D.C.: Sept. 22, 2006).

¹⁵ Throughout this report, we refer to both rail transit entities and railroads collectively as "rail operators."

¹⁶ Among railroads, we selected entities operating freight or passenger service. Among rail transit, we selected entities operating heavy rail, light rail, and cable cars.

the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

In the United States, both FRA and FTA regulate rail transportation safety. FRA oversees safety of railroads operating on what is known as the general system, a network of standard gage track over which goods may be transported and passengers may travel. This system includes freight railroads, which typically own their own tracks and locomotives, transporting products among states and regions. FRA also oversees safety of intercity passenger and commuter railroads that operate over tracks owned by freight railroads and other entities. FTA oversees safety of rail transit systems that typically serve individual metropolitan areas, using track not shared with freight and other passenger trains. Rail transit includes a variety of modes, such as heavy and light rail,¹⁷ streetcars,¹⁸ automated guideways,¹⁹ cable cars,²⁰ and others.

Rail Transit

Rail transit is an important component of the nation's transportation network, particularly in large metropolitan areas. Rail transit systems provided over 4.4 billion passenger trips in 2016. "Heavy rail" systems in large cities account for much of the total rail transit activity, including 88

¹⁷ "Heavy rail" is a transit mode that uses an electric railway with the capacity for a heavy volume of traffic. It is characterized by high speed and rapid acceleration passenger rail cars operating singly or in multi-car trains, on fixed rails, and usually a separate rights-of-way from which all other vehicular and foot traffic are excluded. "Light rail" is a transit mode that typically uses an electric railway with a light volume traffic capacity compared to heavy rail. It is characterized by rail cars operating singly (or in short trains) on fixed rails in shared or exclusive right-of-way.

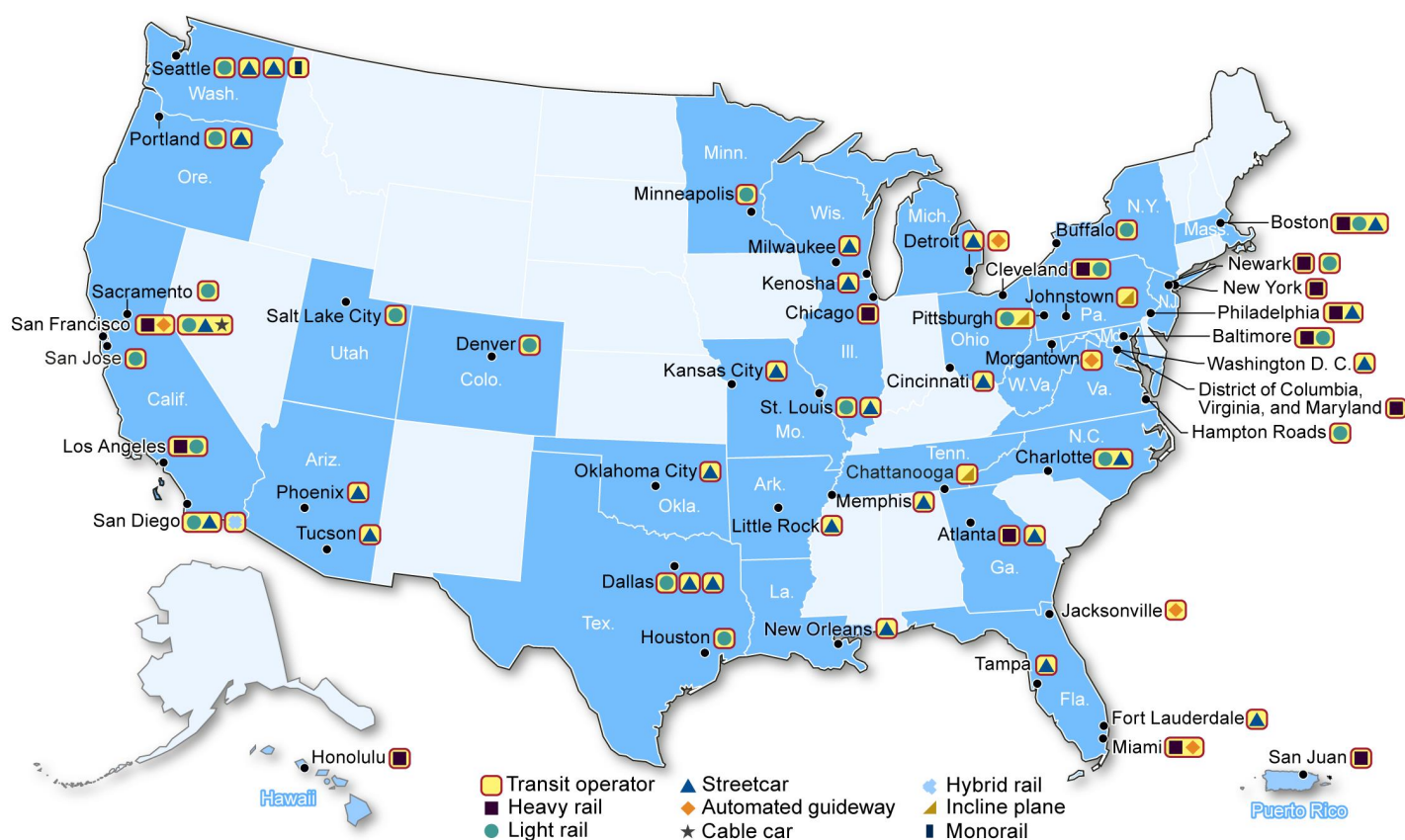
¹⁸ Streetcars are a transit mode operating entire routes predominantly on streets in mixed-traffic. This service typically operates with single-car trains powered by overhead wires or cables providing electrical power.

¹⁹ Automated guideways are an electrically-powered mode of transit operating in an exclusive guideway or over relatively short distances. The service is characterized by either monorail systems with human-operated vehicles straddling a single guideway or by people-mover systems with automated operation.

²⁰ Cable cars are a transit mode that is an electric railway with individually controlled transit vehicles attached to a moving cable located below the street surface and powered by engines or motors not onboard the vehicle.

percent of passenger trips in 2016. According to FTA, 61 rail transit systems within 28 states, the District of Columbia, and Puerto Rico are subject to safety oversight by one of the 31 agencies in FTA's state safety oversight program (see fig. 1).

Figure 1: Rail Transit Systems Overseen by State Safety Agencies



Sources: GAO analysis and Map Resources. | GAO-18-310

The states have long played a central role in conducting safety oversight of rail transit systems.²¹ The Intermodal Surface Transportation Efficiency

²¹ According to FTA, from the inception of the U.S. DOT's federal financial assistance program for state and local agencies until the enactment of MAP-21, FTA and its predecessor agency, the Urban Mass Transportation Administration, were prohibited from regulating any aspect of the day-to-day operations of grant recipients, including establishing national mandatory standards for transit safety.

Act of 1991 required, among other things, that states with rail transit operators designate an agency to oversee the safety of those systems, known as a state safety oversight agency.²² In overseeing state safety agencies, FTA designed the program as one in which FTA, states, and rail transit operators collaborate to ensure the safety and security of rail transit systems.

However, limitations have been identified in the state safety oversight program. In 2006, we reported on some state safety agency challenges in overseeing rail transit safety.²³ Specifically, we found many of the state safety agencies lacked enough qualified staff and adequate levels of training to meet their responsibilities. In a 2009 hearing before the Subcommittee on Highways and Transit of the House Committee on Transportation and Infrastructure, then Secretary Ray LaHood of the Department of Transportation discussed some of the weaknesses under the current state safety oversight program and introduced a public transportation safety legislative proposal. In 2010, various bills were introduced in both houses of Congress that would have provided FTA with various enforcement mechanisms and with the authority to issue safety regulations. Additionally, the bills would have required the Secretary to establish a federal certification program for employees and contractors who carry out a state public transportation safety program. In the 112th Congress, the Senate amended a House bill to include a public transportation safety provision, which eventually became section 20021 of MAP-21, the federal public transportation safety program.

MAP-21 enhanced FTA's authority to oversee the safety of rail transit, potentially addressing some of the weaknesses identified by various stakeholders. Specifically, MAP-21 established a comprehensive Public Transportation Safety Program,²⁴ which continues to rely on state safety

²² Pub. L. No. 102-240, § 3029, 105 Stat. 1914, 2116 (Dec. 18, 1991) (codified as amended at 49 U.S.C. § 5330). Throughout this report we refer to state safety oversight agencies as "state safety agencies."

²³ [GAO-06-821](#).

²⁴ Pub. L. No. 112-141, § 20021, 126 Stat. 405, 709 (July 6, 2012). The Public Transportation Safety Program is comprised of five main elements—(1) a national public transportation safety plan; (2) a safety certification training program for federal, state, and local transportation agency employees with safety oversight responsibilities; (3) public transportation agency safety plans; (4) a strengthened state safety oversight program for rail transit; and (5) a new framework for federal oversight and enforcement. See 49 U.S.C. § 5329.

agencies to monitor rail transit systems' safety operations. MAP-21 required that, within 3 years of the effective date of a final state safety oversight program rule,²⁵ each eligible state have in place a state safety oversight program certified by FTA.²⁶ An eligible state must, among other things, establish a state safety agency and determine, in consultation with FTA, an appropriate staffing level for this state agency that is commensurate with the number, size, and complexity of the rail transit systems within the state. Additionally, a state safety agency must be financially and legally independent from any rail transit system it oversees and have investigative and enforcement authority with respect to the safety for its rail transit systems, among other things. Each eligible state has until April 15, 2019, to receive FTA approval of its state safety oversight program, or else FTA will be prohibited from obligating certain federal financial assistance to any entity in the state that is otherwise eligible to receive that federal financial assistance.²⁷ After that approval, state safety agencies will be evaluated for continued compliance with FTA regulations a minimum of once every 3 years through a triennial review process. According to FTA, these requirements represent a dramatic increase in federal expectations for state safety oversight and for the rail transit industry. MAP-21 also established a state safety oversight grant program, offering federal funding to states for their state safety activities. FTA's Office of Transit Safety and Oversight administers the state safety oversight program.

Railroads

Freight and passenger railroads have played a transformational role in the development of America and continue to be an important part of the economy. The general railroad system consists of a vast network of operations (see fig. 2). The \$60 billion freight rail industry is operated by

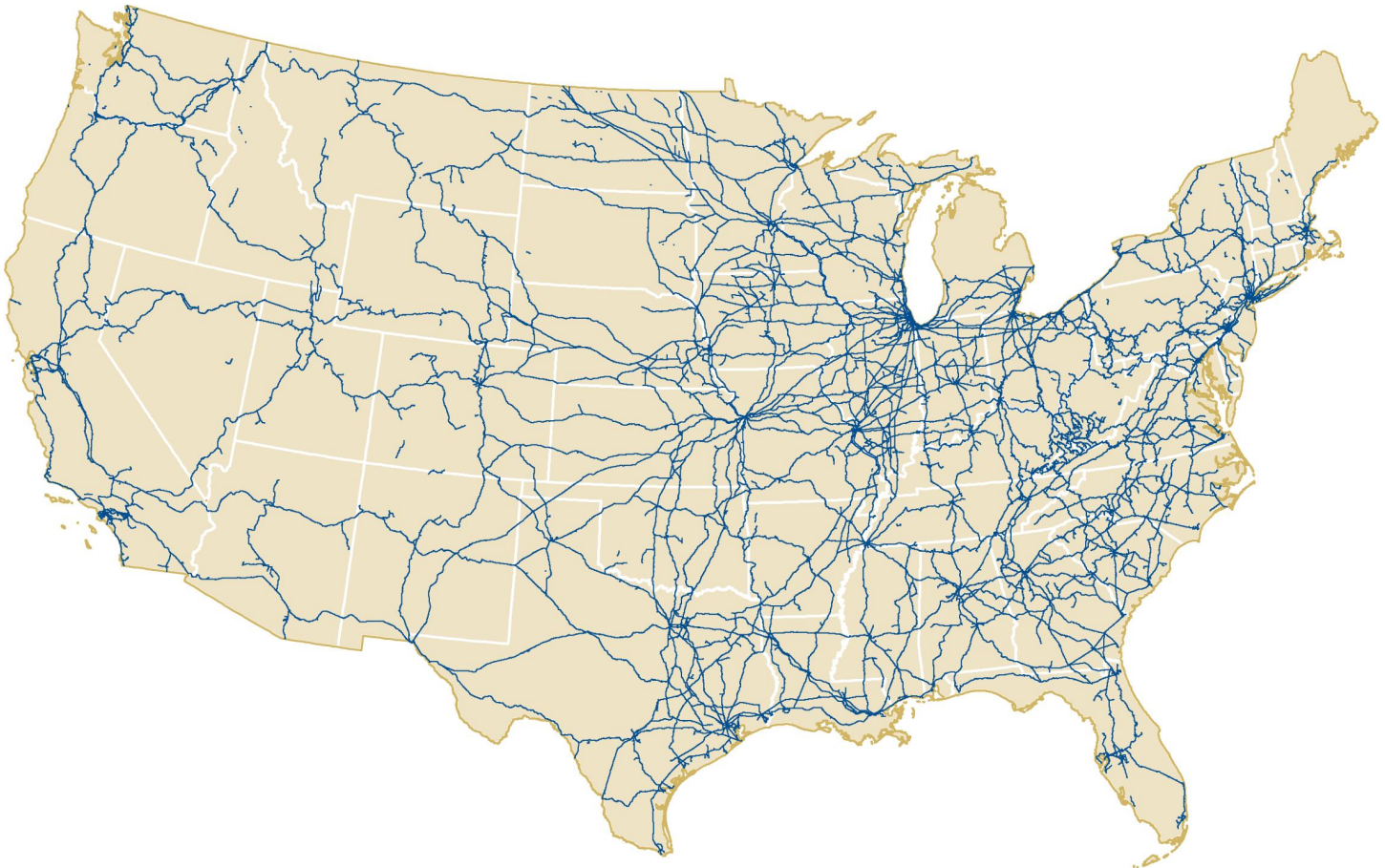
²⁵ FTA issued the final state safety oversight rule on March 16, 2016, with an effective date of April 15, 2016. 81 Fed. Reg. 14,230 (Mar. 16, 2016) (codified at 49 C.F.R. pt. 674).

²⁶ An eligible state is one that has a rail transit system within the jurisdiction of the state that is not subject to regulation by the FRA, or a rail transit system in the engineering or construction phase of development within the jurisdiction of the state that will not be subject to regulation by FRA.

²⁷ Four of the 31 state safety oversight programs have been certified as of February 22, 2018.

seven Class I, and hundreds of smaller, railroads.²⁸ In addition, about 40 railroads move passengers, which carry greater than 670 million passengers per year.

Figure 2: United States General Railroad System



Sources: GAO analysis of Department of Transportation data and MapInfo (map). | GAO-18-310

The federal government has long provided regulatory oversight of railroad safety, both passenger and freight, that operate on the general system. The Interstate Commerce Commission, the first federal regulatory commission in U.S. history, was established in 1887 to regulate interstate

²⁸ Railroads are classified based on their annual carrier operating revenues. According to the Surface Transportation Board, Class I railroads are the largest, with annual carrier operating revenue of about \$447 million or more.

commerce by rail.²⁹ The Commission's safety functions were transferred to FRA, which was created by the Department of Transportation Act in 1966. In its role as federal regulator and overseer of railroad safety, FRA prescribes and enforces railroad safety regulations and conducts research and development in support of improved railroad safety and rail transportation policy. FRA utilizes safety inspectors and specialists, primarily covering five safety disciplines, to review and enforce compliance with these regulations. FRA's safety disciplines are track, signal, and train control; motive power and equipment; operating practices; and hazardous materials. Following several fatal rail accidents between 2002 and 2008, the Rail Safety Improvement Act of 2008 was enacted, the first authorization of FRA's safety programs since 1994. This act directed FRA to, among other things, issue new safety regulations for different aspects of railroad safety, such as hours of service requirements for passenger railroad workers, positive train control implementation,³⁰ track inspection rules, and safety at highway-rail grade crossings. FRA's Office of Railroad Safety administers the agency's safety program.

Rail Accidents and Incidents

Rail transportation is a relatively safe way to transport people and products though serious incidents continue to occur on railroads and rail transit. According to an analysis of DOT's Bureau of Transportation Statistics data by the American Public Transportation Association, travel by rail transit is far safer than automobile travel.³¹ From 2000-2014, for instance, there were 6.53 and 0.33 fatalities per billion passenger-miles traveled in cars or light trucks and rail transit, respectively. Within rail travel, the fatality rates on both railroads and rail transit operators have remained similar in recent years. Further, the rate of accidents and incidents—including collisions and derailments—also do not appear to

²⁹ U.S. Senate Historical Office.

³⁰ Positive train control is a communications-based system designed to prevent certain types of rail accidents caused by human factors, including train-to-train collisions, trains entering established work zones—which could cause roadway worker casualties or equipment damage—and derailments caused by exceeding safe speeds. For example, positive train control can automatically slow or stop a train that is not being operated safely due to operator errors.

³¹ American Public Transportation Association, *The Hidden Traffic Safety Solution: Public Transportation*, September 2016.

differ substantially between railroads and rail transit in recent years.³² Nevertheless, serious incidents continue to occur on railroads and rail transit, posing safety risks to passengers, railroad employees, and the public. For example, in June 2009, two WMATA trains collided, resulting in 52 injuries and 9 deaths. A smoke incident on WMATA's Metrorail system in January 2015 also resulted in the death of 1 person and injured over 90. In a 10-month period from May 2013 to March 2014, the Metro-North commuter railroad, which serves New York and Connecticut, was involved in five accidents that resulted in the death of 6 people and 126 injured. In June 2016, two BNSF Railway freight trains collided near Panhandle, Texas, resulting in the death of three crew members. Incidents such as these have prompted investigations into both the causes and contributing factors of the specific accidents as well as broader rail safety oversight.

FRA Has a Centralized Safety Oversight Framework While FTA Is Implementing a State-Based Approach



FRA has a more centralized safety oversight program for railroads, while FTA is implementing changes to the rail transit oversight program, established in federal statute, which relies on states to monitor and enforce safety. Key characteristics of both programs include: (1) the establishment of safety regulations,³³ (2) inspections and other oversight activities, such as audits and investigations, based on those regulations,

³² See FRA, Ten Year Accident / Incident Oversight safety data, and FTA, National Transit Database, Safety and Security Time Series Data. Railroad accidents here include train accidents and highway-rail crossing incidents, as well as other accidents or incidents that cause physical harm to persons. Train accidents include railroad track, equipment and/or structures that have sustained damage in excess of FRA's accident reporting threshold. A highway-rail grade crossing incident typically involves on-track railroad equipment striking a highway user or a highway user striking on-track equipment at a highway-rail crossing. Rail transit accidents here include collisions (with motor vehicles, people, fixed objects, rail vehicles, bus vehicles, and other items), train derailments, and fires.

³³ We define "regulations" in this report as agencies' statements of general applicability and future effect, which establish legally binding requirements for regulated entities and are codified in the Code of Federal Regulations (CFR). In the context of FRA and FTA rail safety oversight, we refer to "safety regulations" as mandatory minimum safety performance requirements for regulated entities. We define "standard" in this report as conditions, guidelines, or characteristics of industry policies and practices that do not have the force and effect of law.

and (3) enforcement mechanisms to ensure that safety deficiencies are addressed (see fig. 3).

Figure 3: Key Characteristics of the Federal Railroad Administration’s (FRA) and Federal Transit Administration’s (FTA) Rail Safety Oversight Programs

Agency		Safety regulations	Oversight activities	Enforcement mechanisms
	Current status	Has extensive regulations covering various aspects of railroad industry	Conducts safety compliance inspections and investigations	Utilizes a variety of tools, including civil penalties, to resolve safety issues
	Future plans	Update existing regulations	Continue to use and update risk-based model to guide inspections	Enhance effectiveness of tools to improve safety, including increased penalties
 Federal Transit Administration	Current status	Has regulations implementing statutory changes to safety program	Relies on states to conduct safety oversight activities, though it now has inspection authorities	Relies on state safety agencies to enforce safety and monitors these agencies for compliance
	Future plans	Assess specific areas to determine need for safety regulations	Recommend that state safety agencies develop risk-based inspection programs	Require that state safety agencies develop stronger enforcement mechanisms

Source: GAO analysis of FRA and FTA information. | GAO-18-310

Safety Regulations

FRA has developed extensive railroad safety regulations over decades. FRA’s railroad safety regulations include requirements governing track design and inspection, grade crossings, signal and train control, mechanical equipment including locomotives, and railroad-operating practices including worker protection rules. For example, FRA’s regulations for track and equipment include detailed, prescriptive minimum requirements, such as formulas that determine the maximum allowable speeds on curved track. Many of FRA’s rail safety regulations establish minimum safety requirements, though railroads can apply for waivers.³⁴

As FRA updates its safety regulations, it has proposed more performance-based regulations in recent years. Many of FRA’s current safety regulations specify the behavior or manner of compliance that railroads must adopt, such as inspecting each locomotive at least every

³⁴ Waiver petitions generally seek an exception from compliance with an FRA regulation that the petitioner believes is unnecessary or excessively burdensome under the specific circumstances (sometimes because the petitioners’ practices exceed the regulatory requirements, according to FRA officials). Although certain statutorily mandated requirements cannot be waived, FRA may generally issue a waiver when it is in the public interest and consistent with railroad safety.

92 days. Performance-based regulations, however, specify a desired outcome rather than a behavior or manner of compliance. For example, FRA's recent rulemaking to amend its passenger equipment safety regulations proposes performance-based crashworthiness and occupant protection requirements, rather than explicit targets or tolerances.³⁵ According to FRA, establishing performance requirements in these areas would allow a more open rail market that incorporates recent technologies.

FTA is currently assessing the need for rail transit safety regulations, having been provided the authority to issue safety regulations in 2012.³⁶ Since MAP-21 was enacted, FTA has finalized regulations implementing the public transportation safety program authorized by statute. These include regulations that establish rules for FTA's administration of a comprehensive safety program to improve rail transit safety as well as updated regulations governing state safety oversight of rail transit.³⁷ In addition to its public transportation safety program regulations, FTA also has regulations governing its drug and alcohol testing program.³⁸ MAP-21 also authorized FTA, for the first time, to issue rail transit safety regulations, which would establish minimum safety performance requirements for rail transit operators, as part of its requirement to develop a National Public Transportation Safety Plan.³⁹ FTA initiated a

³⁵ *Passenger Equipment Safety Standards; Standards for Alternative Compliance and High-Speed Trainsets*, 81 Fed. Reg. 88006 (Dec. 6, 2016).

³⁶ According to FTA, the agency and its predecessor agency, the Urban Mass Transportation Administration, were previously prohibited from regulating any aspect of the day-to-day operations of grant recipients, including establishing national mandatory standards for transit safety. However, according to FTA, it has been responsible for monitoring the many state agencies that exercised direct safety oversight of rail transit operations, and providing technical assistance to those state agencies.

³⁷ See 49 C.F.R. pts. 670 and 674.

³⁸ See 49 C.F.R. pt. 655. The purpose of this part is to establish programs to be implemented by employers that receive financial assistance from FTA, and by contractors of those employers, that are designed to help prevent accidents, injuries, and fatalities resulting from the misuse of alcohol and use of prohibited drugs by employees who perform safety-sensitive functions.

³⁹ FTA issued the final National Public Transportation Safety Plan in January 2017. 82 Fed. Reg. 5628 (Jan. 18, 2017). According to FTA, it will periodically issue a National Public Transportation Safety Plan to improve the safety of all public transportation systems that receive funding under Chapter 53 of Title 49 of the U.S. Code. The National Public Transportation Safety Plan includes, among other things, safety performance criteria, voluntary minimum safety performance standards for vehicles in revenue operations, safety advisories, and best practices.

regulatory development effort after the passage of MAP-21, which included a compilation and evaluation of existing transit safety standards, guidance, and best practices from the federal government, states, industry, and other sources. After the evaluation, FTA issued a report that concluded there was limited documentation or evidence of the effectiveness of these existing rail transit safety standards.⁴⁰ The report included recommendations that are intended to enable FTA to undertake further data-driven, risk-based analysis of rail transit safety performance and the applicability and effectiveness of the identified safety standards. FTA is also currently analyzing specific focus areas to determine any areas that should be addressed by federal safety regulations. For example, FTA is studying the need for regulations related to rail transit vehicle crashworthiness.

Since no federal rail transit safety regulations that establish minimum safety performance requirements for rail transit operators currently exist, rail transit operators are subject to different safety standards,⁴¹ depending largely on what voluntary standards they have chosen to adopt, according to American Public Transportation Association officials we spoke with.⁴² The American Public Transportation Association, for instance, has issued a variety of rail transit safety standards, addressing various aspects of the industry including operations, training, and inspections. In addition, states vary in the extent to which they have regulations for rail transit operators. For example, officials from the California Public Utilities Commission noted that it has issued a variety of safety regulations applicable to rail transit operators within the state of California to improve safety of rail operations.

Both FRA and FTA have mechanisms to gather the input of stakeholders—including rail operators, labor unions, industry associations, and others—when considering development of safety regulations. In developing most of its safety regulations, FRA seeks input from stakeholders through its Railroad Safety Advisory Committee. In

⁴⁰ FTA, *Review and Evaluation of Public Transportation Safety Standards*, FTA Report No. 0103, Prepared by Center for Urban Transportation Research, January 2017.

⁴¹ According to FTA, its regulations on the prevention of alcohol misuse and prohibited drug use in transit operations can be considered “safety regulations. See 49 C.F.R. pt. 655

⁴² Industry standards also exist for railroads, developed by such organizations as the Association of American Railroads.

1996, FRA established this committee to develop new regulations through a collaborative process, with the rail community working together to create mutually satisfactory solutions to safety issues. FTA is collaborating with stakeholders as it assesses the need for rail transit safety regulations. More specifically, FTA's research partner, the Center for Urban Transportation Research, established a working group to collaborate with industry stakeholders to inform the safety regulations development process. FTA also solicited comments from industry stakeholders on its compilation of existing rail transit safety standards. More broadly, FTA also has a Transit Advisory Committee for Safety, which provides information, advice, and recommendations to FTA on safety matters.

Oversight Activities

FRA fulfills its mission, in part, through safety compliance audits and inspections, and investigations. FRA ensures compliance with its safety regulations through inspections, using a staff of railroad safety experts, inspectors, and other professionals assigned to eight regional offices across the nation. For example, to determine a railroad's compliance with FRA safety regulations, inspectors examine track, equipment, signal devices, employee actions, and procedures and review maintenance and accident records. Additionally, 31 states have rail safety programs that partner with FRA.⁴³ Under this approach, FRA enters into agreements with states to allow state inspectors to participate in investigative and surveillance activities concerning federal railroad safety laws. State inspectors who participate in this program submit inspection reports to FRA. More broadly, FRA's inspections are guided by a risk-based model.⁴⁴ Under this approach, FRA focuses its inspections on locations that, according to the data-driven model, are likely to have safety problems. Like other operating administrations within DOT, FRA has relatively few resources for overseeing railroads, compared with the size

⁴³ See 49 U.S.C. § 20105; 49 C.F.R. pt. 212.

⁴⁴ FRA's risk-based model is a risk assessment tool, which we have defined as a process of qualitatively or quantitatively determining the probability of an adverse event and the severity of its impact on an asset. It is a function of threat, vulnerability, and consequence. A risk assessment provides the basis for the rank ordering of risks (in FRA's situation, railroad accidents) and for establishing priorities for applying countermeasures (in FRA's situation, safety inspections). See GAO, *Risk Management: Further Refinements Needed to Assess Risks and Prioritize Protective Measures at Ports and Other Critical Infrastructure*, [GAO-06-91](#) (Washington, D.C.: Dec. 15, 2005).

of the general system. The risk-based model is designed to help FRA target the greatest safety risks. FRA has begun utilizing automated inspections as well. In particular, according to FRA, new imaging technologies have the potential to better inspect track for cracks in the rail that could lead to breakage as well as measure the track's geometry to ensure that rails are positioned to meet standards. To further promote safety in railroad operations, FRA conducts accident investigations. Separate from investigations conducted by NTSB, FRA investigates select railroad accidents to determine root causation, and any contributing factors, so that railroad properties can implement corrective actions to prevent similar incidents in the future.

Resources for railroad safety oversight activities have increased in recent years. FRA was appropriated about \$218 million in fiscal year 2017, an increase over the approximately \$187 million it received in fiscal year 2015, for safety and operations, which funds FRA's personnel, including inspectors, and safety programs. According to FRA, Congress provided FRA with increased funding in recent years for the purpose of increasing staffing related to specific safety issues, such as trespasser prevention and passenger rail safety.⁴⁵ As part of this effort, FRA has hired additional inspectors, going from 347 inspectors in fiscal year 2013 to over 360 currently, out of the nearly 930 total full-time equivalent staff. FRA officials told us, as we have reported in the past,⁴⁶ that it can be difficult to recruit, train, and certify qualified inspectors in a timely manner, especially in certain areas of expertise. Further, according to FRA, its inspectors have the ability to inspect less than 1 percent of the general system annually.

Though FTA now has more robust inspection authorities, states will continue to conduct front-line rail transit safety oversight activities. MAP-21 provided FTA with new authorities to inspect, audit, and investigate practices at rail transit agencies, including safety practices, while also preserving the role of state safety agencies to monitor rail transit systems' safety operations. According to FTA officials, any federal inspections of rail transit operators are intended to supplement a state safety agency's oversight activities, except where FTA assumes temporary, direct oversight of a rail transit system from an inadequate state safety agency. FTA officials told us that establishing a nationwide safety inspection program at the federal level is inconsistent with the statutory framework of

⁴⁵ FRA, *Budget Estimates, Fiscal Year 2018*.

⁴⁶ [GAO-14-85](#).

the state safety oversight program and with congressional intent, which contemplates preserving the primary role of state safety agencies in providing direct safety oversight of rail transit systems. The officials also noted that the state-based approach to rail transit safety oversight is valuable because states are generally closer to, and more familiar with, rail transit operators. To date, FTA has utilized its new inspection authorities only on WMATA's rail system.⁴⁷ As part of oversight activities, some state safety agencies have conducted inspections of the rail transit systems they oversee, though they were not required to do so, according to FTA officials we spoke with. To strengthen states' abilities to conduct oversight activities, FTA has recommended that state safety agencies develop risk-based inspection programs. Further, to ensure the independence of state safety agencies, these agencies cannot receive funding from the rail transit entities they oversee.⁴⁸

Resources for FTA's rail transit safety oversight administrative expenses have remained relatively stable in recent years, though more are needed, according to FTA. Since fiscal year 2012, FTA's appropriations for administrative expenses, which funds FTA personnel and support activities including the Office of Transit Safety and Oversight, has increased \$14 million, to about \$113 million in fiscal year 2017, according to FTA. However, for several years, FTA has averaged about 508 total full-time equivalent staff agency-wide, and a little over 30 safety staff in the Office of Transit Safety and Oversight. According to FTA, the Office of Transit Safety and Oversight has been under-resourced since it was established in response to new safety authority provided in MAP-21.⁴⁹ For fiscal year 2018, FTA requested in their submission for the President's Budget proposal funding to hire up to an additional 20 positions for various lines of safety work.

⁴⁷ FTA has conducted many inspections of the WMATA rail system's track infrastructure and internal inspection program to inform their direct oversight of the rail system.

⁴⁸ 49 U.S.C. § 5329(e)(4)(A)(i). As noted above, FTA has also implemented a grant program, established in MAP-21, which provides funding for state safety oversight programs. Lack of resources, and independence from the entities they oversee, have historically been weaknesses of state safety oversight, according to stakeholders we spoke with. Two state safety agencies we spoke with said that they are using the new grant funds to hire inspectors, though similar to FRA, they noted that it can be difficult to recruit and retain qualified inspectors given the demand for these employees and the pay they are able to offer.

⁴⁹ FTA, *Budget Estimates, Fiscal Year 2018*.

FRA's and FTA's oversight activities also include regular audits of, and communication with, the rail operators under their oversight.⁵⁰ Given finite resources and large rail networks, FRA and FTA audit rail operators' own inspections rather than conducting comprehensive federal inspections. More specifically, FRA inspectors, and state safety agencies in FTA's oversight program, regularly examine records of rail operators' internal inspections to identify safety deficiencies.⁵¹ Officials from FRA, FTA, and five rail stakeholders we spoke with told us that FRA and FTA rail safety oversight programs also rely on collaboration and communication between rail operators and regulators to ensure safety. For example, regular meetings between FRA and railroad staff to discuss safety trends and industry developments are important to ensuring safety, according to officials we spoke with from FRA and the railroads. FRA specialists and inspectors participate, with representatives of railroad labor and management, in the implementation of voluntary safety programs. For example, FRA sponsors the Confidential Close Call Reporting System, a voluntary, confidential program allowing railroads and their employees to report accident and incident "close calls." According to FRA officials, voluntary programs such as this increase industry awareness of railroad safety and engagement with it. FTA also collaborates with state safety agencies as rail transit safety issues arise, according to FTA officials, using federal oversight and enforcement authorities as a "back-stop" against the oversight of state safety agencies. Additionally, according to officials we spoke with from FTA and two rail transit operators, state safety agency staff meet with rail transit operators regularly, using knowledge of local operating conditions to help ensure safety.

Enforcement Mechanisms

FRA uses a variety of tools, including civil penalties, to resolve safety issues. While some safety issues are resolved informally through discussion and collaboration between FRA and railroads, as noted above, some defects identified during inspections are classified as violations and subject to financial penalties. More specifically, when railroads do not resolve issues in a timely manner or identified defects are serious, FRA

⁵⁰ FTA officials emphasized to us that while FRA directly audits and communicates with the railroads it oversees, under FTA's program, FTA will generally oversee the state safety agencies and the state safety agencies will directly oversee the rail transit operators.

⁵¹ According to FRA, it also routinely conducts focused, comprehensive inspections on particular safety issues involving individual railroads.

has the authority to cite violations and assess civil penalties, against either railroads or individuals. Further, as authorized by law, FRA negotiates settlements with railroads and other entities subject to its safety jurisdiction to resolve claims for civil penalties.⁵² In fiscal year 2016, FRA assessed over \$11.8 million in civil penalties against railroads. According to FRA, fiscal year 2016 was the second year in a row that it took steps to increase penalty amounts paid by railroads, as part of a continued effort to increase consequences for violations that negatively affect safety.⁵³

To ensure the safety of rail transit systems, states will continue to be the primary enforcers of safety requirements, according to FTA officials, though FTA now has more enforcement tools. MAP-21 preserved the role of state safety agencies as the primary enforcement body for rail transit. FTA has now required that state safety agencies have enforcement authorities sufficient to compel action from rail transit entities to address safety deficiencies. Though no specific authorities are required, FTA has suggested that a variety of mechanisms could be appropriate, such as the ability to remove deficient equipment from service or assess fines. According to FTA, this requirement is designed to overcome a long-standing vulnerability in state safety oversight, which allowed safety deficiencies to remain for long periods of time. MAP-21 and the FAST Act also provided FTA with more options for enforcement when rail transit operators are found to be out of compliance with safety requirements. In particular, FTA can withhold federal funding for rail transit operators or direct a rail transit operator to use federal funding for a specific purpose.⁵⁴ Additionally, after FTA assumes temporary direct oversight of an inadequate state safety agency, FTA can withhold federal funds from the state until the state safety oversight program has been certified.⁵⁵ To date, FTA has utilized this authority only with the states responsible for safety oversight of WMATA's rail system. In February 2017, FTA announced that it would withhold 5 percent of fiscal year 2017 urbanized area formula funds from Maryland, Virginia, and the District of Columbia until a new state safety oversight program is certified for WMATA's rail

⁵² 49 U.S.C. §§ 20111(a)(1), 21301(a)(3), 21302(a)(3), 21303(a)(3).

⁵³ FRA, Fiscal Year 2016 Enforcement Report.

⁵⁴ 49 U.S.C. § 5329(g)(1)(D), (E).

⁵⁵ 49 U.S.C. § 5329(e)(8)(C)(ii).

system.⁵⁶ This action built upon FTA's determination that WMATA's state safety agency was ineffective at "providing adequate oversight consistent with prevention of substantial risk of death or personal injury."⁵⁷

FRA and FTA also have the authority to directly intervene in rail operations. In particular, both FRA and FTA can suspend the service of rail operators in response to certain safety concerns.⁵⁸ Additionally, FTA can assume direct safety oversight of a rail transit operator if FTA determines the state safety oversight program is not adequate, among other things.⁵⁹ In response to safety incidents on WMATA's rail system, FTA assumed temporary and direct safety oversight of WMATA in October 2015, as previously noted.⁶⁰

⁵⁶ Letter from FTA Governor Hogan, Governor McAuliffe, and Mayor Bowser (Feb. 10, 2017).

⁵⁷ Letter from FTA Governor Hogan, Governor McAuliffe, and Mayor Bowser (Feb. 10, 2017).

⁵⁸ FRA's emergency order authority allows it, upon finding the existence of an unsafe condition or practice (or combination thereof) causing an emergency situation involving a hazard of death, personal injury, or significant harm to the environment, to order railroads to take immediate action to abate the emergency situation. Similarly, FTA's authority permits it to issue restrictions and prohibitions upon finding the existence of an unsafe condition or practice (or combination thereof) such that there is a substantial risk of death or personal injury.

⁵⁹ 49 U.S.C. § 5329(e)(8). The FAST Act amended the public transportation safety program to allow the Secretary of Transportation to administer the state safety oversight program for a rail transit agency if the Secretary determines that the state safety oversight program is not being carried out in accordance with 49 U.S.C. § 5329, has become inadequate to ensure enforcement of federal safety regulation, or is incapable of providing adequate safety oversight consistent with the prevention of substantial risk of death or personal injury. Pub. L. No. 114-94, § 3013, 129 Stat. 1312, 1476 (Dec. 4, 2015) (codified at 49 U.S.C. § 5329(e)(8)).

⁶⁰ In 2016, DOT OIG recommended that FTA finalize and issue policies and procedures for assuming and relinquishing, direct safety oversight authority. FTA officials told us that they planned to issue such policies and procedures by the end of 2017 but have not done so as of March 1, 2018.

FRA's and FTA's Approaches to Rail Safety Oversight Have Strengths and Limitations, and FTA Can Improve Implementation of Its New Authorities

FRA and FTA's approaches to their rail safety oversight missions each have strengths and limitations, including how the agencies develop safety regulations, conduct inspections, and carry out enforcement. Compared to FRA's long-standing role in providing safety oversight over railroads, FTA is in the process of implementing significant changes to its program for rail transit safety oversight after being granted new authorities in MAP-21 and the FAST Act. With respect to regulations, FRA's extensive and well-established safety regulations are a strength. FTA has made some progress toward developing appropriate safety regulations, such as identifying subjects for potential regulatory action. With respect to inspections, FRA's use of a risk-based approach to distributing inspection resources is a strength. FTA has sought to address previously identified deficiencies in state safety oversight by recommending that state safety agencies develop risk-based inspection programs. FTA, though, has not provided states guidance for these efforts. With respect to enforcement, FRA's use of its enforcement authorities is a strength. FTA is also implementing new statutory requirements that state safety agencies have enforcement authorities but does not have a process or methodology to evaluate the effectiveness of these enforcement practices.

Regulations: FRA and FTA Are Working to Improve Rail Safety Oversight by Considering Performance-based Regulations

Extensive and well-established safety regulations are a strength of FRA's safety oversight program based on studies we reviewed and discussions with rail operators and stakeholder organizations. According to NTSB, FRA's railroad safety regulations are an important and effective part of its oversight program. Our previous work reported that according to stakeholders, the Railroad Safety Advisory Committee provides a collaborative environment where stakeholders in the rail community work with FRA to identify issues and proposals for safety standards and regulations that improved the quality of railroads' safety initiatives and

fostered a greater level of compliance with safety regulations.⁶¹ This is consistent with views of stakeholders we spoke with, who characterized FRA's safety regulations as a strength. An industry association told us that FRA's regulations promote safety by helping to ensure that no operator falls below a minimum threshold for safe operations, while a rail operator told us that federal regulations help to standardize the operating environment and prevent a patchwork of various state regulations. Four stakeholders also characterized the Railroad Safety Advisory Committee, which plays a large role in crafting FRA's railroad safety regulations, as effective and inclusive.

However, based on studies we reviewed and discussions with rail operators' and stakeholders' organizations, FRA faces limitations in its efforts to regulate safety across railroad systems that differ from one another and sometimes change more quickly than the federal regulatory process. Five railroad operators and an industry association told us that some of FRA's safety regulations do not account for differences in railroads or innovation in safety practices, with three railroad operators stating that this approach requires the extensive use of waivers for particular regulations. Further, two railroad operators and a rail transit operator we spoke with stated that additional federal regulations are needed to provide minimum baseline requirements in specific areas of railroad safety such as medical fitness for duty. In 2014, NTSB also found that FRA needs to do more to regulate particular safety issues including medical fitness for duty and signal protection.⁶²

FRA officials acknowledged that time and resources are two of the primary challenges that the agency faces when developing safety regulations but also noted additional ways in which the agency can require railroads to adopt safety practices. FRA officials described the process of creating or significantly amending a regulation as involving years of work, even before the agency commences with the process of drafting a rule. The officials also noted that the agency has additional tools to compel railroads to adopt safety practices. For example, FRA officials discussed the use of compliance agreements, in which railroads can have fines reduced in exchange for adopting safety measures that go beyond what FRA regulations require.

⁶¹ [GAO-14-85](#).

⁶² NTSB, *Special Investigation Report*, SIR-14/04.

FRA officials are considering the use of performance-based regulations as they update their safety regulations.⁶³ As noted above, FRA's proposed regulations regarding passenger equipment safety incorporates performance-based safety requirements, rather than explicit safety targets or tolerances. FRA has promulgated performance-based regulations about the implementation of positive train control, a communications-based system designed to prevent certain types of train accidents, as well as system safety programs that set general safety parameters and thresholds by which successful performance is governed.⁶⁴

FRA's consideration of performance-based regulations is in line with federal guidance. OMB's *Circular A-4* states that performance standards "are generally superior to engineering or design standards because performance standards give the regulated parties the flexibility to achieve regulatory objectives in the most cost-effective way."⁶⁵ Additionally, under Executive Order 12866, agencies should (to the extent permitted by law and where applicable) identify and assess alternative forms of regulation and specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt.⁶⁶

However, as the language of OMB's *Circular A-4* and Executive Order 12866 suggest that performance-based regulations are not always feasible, studies of performance-based regulations find that as with any other form of regulation, performance-based standards have trade-offs.⁶⁷ FRA officials told us that under certain circumstances, performance-based regulations are appropriate for issues regarding design,

⁶³ Performance-based regulations specify a desired outcome rather than behavior or manner of compliance.

⁶⁴ See 49 C.F.R. pt. 236, subpart I; 49 C.F.R. pt. 270. The system safety program regulations have been suspended through December 4, 2018.

⁶⁵ Office of Management and Budget, *Circular A-4, Regulatory Analysis* (Sept. 2003).

⁶⁶ Exec. Order No. 12,866, 58 Fed. Reg. 51,735 (Oct. 4, 1993). A subsequent executive order reaffirmed this principle.

⁶⁷ See, for example, Coglianese, Cary, Jennifer Nash, and Todd Olmstead, "Performance-Based Regulation: Prospects and Limitations in Health, Safety, and Environmental Protection," *Regulatory Policy Program*, Report No. RPP-03 (2002); May, Peter, "Performance-Based Regulation and Regulatory Regimes: The Saga of Leaky Buildings," *Law and Policy*, vol. 25, No. 4 (2003); and Coglianese, Cary, "The Limits of Performance-Based Regulation," 50 U. Mich. J. L. Reform 525 (2017).

maintenance, operation, and technology-driven safety requirements. FRA officials we spoke with did not think performance-based standards are appropriate for areas that require standardization. One example is track safety standards, where the need for different operators to use the same equipment precludes a performance-based approach that allows railroads to meet requirements through different means. FRA officials added that a key aspect of the success of performance-based regulations concerns how railroads demonstrate compliance. This concern is consistent with other studies of performance-based regulations, which find that these regulations are most appropriate when regulators have capacity to measure and monitor performance.⁶⁸

Though FTA has made progress assessing the state of rail transit safety standards, a limitation of FTA's rail transit safety oversight program is the lack of federal rail transit safety regulations, which may contribute to inconsistent safety practices across the rail transit industry, according to studies we reviewed and discussions with rail operators and stakeholder organizations. NTSB reported that the structure of FTA's oversight process leads to inconsistent practices, inadequate standards, and marginal effectiveness.⁶⁹ In addition, a 2016 DOT OIG report found that because FTA's safety standards are voluntary, they are unenforceable. In 2012, FTA gained the authority to issue safety regulations, though it has not done so yet, and NTSB and other stakeholders we spoke with indicated that the lack of such federal safety regulations is a weakness in federal rail transit safety oversight. Despite differences across rail transit systems, there is value in establishing federal rail transit safety regulations, according to stakeholders from all categories of those we interviewed, including a state safety agency, three rail transit operators, a railroad operator, and two industry associations. Some stakeholders identified specific areas that would benefit from federal rail transit regulations. For example, two rail transit agencies called for federal regulations to address operator fatigue. Some of these officials stated that federal rail transit safety regulations could help ensure safety by establishing clear and consistent minimum standards. Officials from a rail transit entity and an industry association stated that voluntary standards

⁶⁸ See Coglianese (2017), 547.

⁶⁹ NTSB, *Collision of Two Washington Metropolitan Area Transit Authority Metrorail Trains Near Fort Totten Station*, Accident Report, NTSB/RAR-10/02 (Washington, D.C.: July 27, 2010).

are not enough to ensure that transit entities will adopt appropriate safety measures.

According to our analysis, a past study, and stakeholders we spoke with, FTA's ability to develop and implement performance-based regulations is limited by its lack of capacity to collect and analyze rail safety performance data. In 2017, DOT OIG found that data limitations of FTA's National Transit Database results in limited safety performance criteria in FTA's National Public Transportation Safety Plan. Further, two rail transit entities as well as a state safety agency we spoke with stated that they face challenges in analyzing data due to either the size of their systems or their capacity.⁷⁰ FTA officials told us that they need more data to inform their decisions regarding whether to establish rail transit safety regulations, and also added that a limitation to their ongoing assessment of potential areas for rail transit safety regulation is the concern about public disclosure of safety data provided to FTA and its potential use in private litigation.⁷¹ According to FTA officials, they need more information to do a comprehensive evaluation of efficacy of current safety standards and practices. As required by the FAST Act, FTA has entered into an agreement with the National Academies of Sciences, Engineering, and Medicine, to conduct a study to evaluate whether it is in the public interest to withhold from federal or state court proceedings any information collected by DOT through its public transportation safety program oversight activities. The National Academies of Sciences is expected to complete this study in 2018.

FTA is taking positive steps toward developing safety regulations that may address inconsistent safety practices across rail transit operators. FTA officials stated that the agency is considering issuing rail transit safety regulations and also employs additional tools to compel rail transit

⁷⁰ According to FTA, state safety agencies generally receive data from the rail transit operators they oversee. This, in some cases, is the same data rail transit operators provide to FTA's National Transit Database.

⁷¹ According to the DOT OIG, FTA has twice sought data protection legislation that was not enacted. According to FTA officials, certain types of transit safety information that is obtained by FTA might be protected from public disclosure under a Freedom of Information Act exemption. For example, FTA may withhold from public disclosure Sensitive Security Information that was developed in the conduct of security activities, the disclosure of which the Secretary has determined would (1) be an unwarranted invasion of personal privacy; (2) reveal a trade secret or privileged or confidential commercial or financial information; or (3) be detrimental to transportation safety. See 49 U.S.C. § 40119; 49 C.F.R. pt. 15.

entities to adopt safety measures. As noted above, FTA is currently studying whether federal regulations are appropriate for specific areas of rail transit safety. Executive Order 12866 and OMB's *Circular A-4* direct federal agencies to consider performance-based regulations when developing regulations. Further, as the Transportation Research Board recently reported, any decision to use performance-based regulations "must take into account the regulator's own ability to enforce and motivate compliance (through methods such as auditing and field inspections) as well as the capacity of regulated entities to meet their obligations."⁷² FTA officials noted that they are actively engaged with members of the Transportation Research Board in reviewing and discussing these recent findings related to safety regulations for high-hazards industries.⁷³ In January 2017, FTA issued its National Public Transportation Safety Plan, which FTA officials noted is one component of their transit safety standard development program. According to FTA officials, the plan identifies a list of issue areas that the agency is currently studying to determine whether national regulations are needed. FTA officials also stated that the plan includes "voluntary standards," which are intended to put the industry "on notice" that federal safety regulations may be proposed in those areas. FTA officials stated that they view the National Public Transportation Safety Plan as iterative and more easily updated compared with official regulations. Additional tools that FTA officials stated the agency employs in its approach to safety oversight include general directives as well as the requirements associated with FTA grants.

Inspections: FRA Utilizes a Risk-Based Model, While FTA Oversees the Development of State Safety Agencies' New Programs

Based on our assessment and studies we reviewed, a strength of FRA's safety oversight program is its risk-based approach to distributing inspection resources, which may serve as an example for FTA and state safety agencies. According to NTSB, FRA's qualified inspectors are a strength of its oversight program. To help target these inspectors to the areas of highest risk, FRA developed the National Inspection Plan, which

⁷² Transportation Research Board, *Special Report 324: Designing Safety Regulations for High-Hazard Industries* (Washington, D.C.: 2018).

⁷³ High-hazard industries include those in which safety failures can be catastrophic and lead to deaths and injuries, environmental damage, and property loss.

includes a quantitative model for allocating inspection resources in a way that tries to minimize railroad accidents. This model utilizes data including: (1) accident and incident data that railroads are required to report, (2) data from FRA inspection activity, and (3) information on railroad activities such as train miles and other data. Based on our assessment of FRA's model, we believe that it can be an appropriate and useful tool for directing its inspection resources based on risk because it relies on statistical methods commonly used to predict the risk of a violation for regulated entities. While we did not review FRA's entire modeling process, nor did we validate the results it generates, we do believe that FRA's approach to using these statistical models as a key part of its inspection program is appropriate.

However, a potential limitation of FRA's inspection program is the flexibility granted to individual inspectors and whether the manner and extent to which inspectors implement this discretion may be inconsistent with the risk-based National Inspection Plan. FRA's National Inspection Plan provides guidance for inspectors about how much time they should spend inspecting individual railroads. According to FRA officials, FRA inspectors have considerable flexibility to deviate from the National Inspection Plan based on their judgment regarding where to more effectively use their resources. FRA officials stated that situations arise that call for deviations in planned inspections. For example, a particular railroad may experience a serious accident and therefore require more oversight from FRA. According to FRA officials, regional offices make these decisions based on their understanding of emerging issues. Inspectors are expected to know their region and decide which locations to go to, and are in part evaluated based on these decisions. When a region's record of total inspection time spent on a particular railroad differs from the National Inspection Plan by more than 5 percent, the region's leadership submits an explanation to FRA's Office of Railroad Safety. This practice, if not monitored, could allow inspectors to deviate from the data-driven model results in ways that undermine the goal of the National Inspection Plan to deploy FRA's limited resources efficiently and based on risk. However, FRA officials told us that flexibility for individual inspectors is important, and that FRA is continuously monitoring the model's performance and making changes as appropriate. Further, OECD's *Best Practice Principles for Regulatory Policy* note that it is important to ensure "that sufficient flexibility is left to enforcement and

inspection officials to adapt their response in proportion to the facts on the ground.”⁷⁴

A strength of FTA’s approach to rail transit safety oversight is that it is working to overcome weaknesses in state oversight of rail transit identified in our prior work and stakeholders we spoke with. For example, FTA has noted that in the past some state safety agencies lacked sufficient oversight authorities. To now be certified by FTA, state safety agencies must demonstrate that they have authority to review, approve and oversee the implementation of rail transit operator’s safety plans. Additionally, we have found, and FTA has also noted, that some state safety agencies would benefit from more training and additional staff.⁷⁵ To now be certified by FTA, state safety agencies must be capable of directly hiring and developing staff and contract support, as well as have a training plan for certain staff.

Though FTA is seeking to implement stronger safety oversight activities, a limitation of its program is that state safety agencies have not received the guidance and support necessary to develop effective inspection programs. FTA does not currently plan to conduct widespread inspections itself and recommends that state safety agencies develop risk-based inspection programs. According to FTA, states have discretion to establish their inspection programs in accordance with their program standards, and are not required to actually conduct inspections as the method of verifying rail transit operators’ compliance with safety rules.⁷⁶ However, direct observation, audits, and performance indicator tracking

⁷⁴ OECD, 2014.

⁷⁵ [GAO-06-821](#). We made two recommendations to FTA in this report. First, we recommended that FTA develop performance goals for the state safety oversight program. Second, we recommended that FTA develop and encourage completion of a training curriculum for state safety agency staff. FTA took action in response to both of these recommendations, establishing performance goals and a training curriculum. Additionally, MAP-21 addressed some of these concerns. Through the ongoing certification process, states determine in consultation with FTA the appropriate staffing level for their state safety agency. Further, to be certified by FTA, states must demonstrate that the employees and other personnel of the state safety agency who are responsible for the oversight of rail transit safety are qualified to perform their functions, based on appropriate training, including completion of the Public Transportation Safety Certification Training Program.

⁷⁶ A state safety oversight program standard must identify the processes and procedures that govern the activities of the state safety agency. Also, the program standard must identify the processes and procedures rail transit operators must have in place to comply with the standard.

are useful methods for an oversight agency in assessing a regulated entity's safety culture.⁷⁷ Officials we spoke with from selected state safety agencies say that they have received little guidance from FTA on what their risk-based inspection programs should look like. In the materials FTA provided to states, it said that it intends to provide guidance to states on risk-based inspections but did not provide us with a plan or timeline for doing so.

Without guidance from FTA, state safety agencies may not develop effective risk-based inspection programs and thus not use their resources efficiently. Effective risk-based inspection programs are particularly important given state safety agencies' limited resources. We have reported in the past that some state safety agencies lack sufficient resources, including training and staff.⁷⁸ Officials from two rail transit operators and all four industry associations we spoke with stated that state safety agencies continue to have limited resources and capacity. Several state safety agencies we spoke with rely on contractors or employees with other responsibilities besides oversight of rail transit to meet their increased oversight responsibilities and achieve certification from FTA.

Federal standards for internal control as well as leading practices for regulatory inspections state that agency objectives, including those related to inspections and enforcement, should be clearly communicated. Specifically, federal standards for internal control require that management communicate the necessary quality information to achieve the agency's objectives.⁷⁹ Additionally, the OECD's *Best Practice Principles for Regulatory Policy* recommends that governments ensure clarity of rules and processes for enforcement and inspections and clearly articulate rights and obligations of officials.⁸⁰ According to OECD, the frequency of inspections and the resources employed should be proportional to the level of risk.

⁷⁷ TCRP, 2015.

⁷⁸ [GAO-06-821](#).

⁷⁹ [GAO-14-704G](#).

⁸⁰ OECD, 2014.

Enforcement: FRA Utilizes Various Mechanisms; FTA Has No Process or Methodology to Assess the Effectiveness of State Safety Agency Enforcement

A strength of FRA's safety oversight program is that the agency has and utilizes clear enforcement authority, according to NTSB and stakeholders we spoke with. As previously discussed, FRA has several enforcement tools available when inspectors find that railroads are noncompliant with applicable regulations, including civil penalties, individual liability, compliance orders, and emergency orders. According to NTSB, this array of specific enforcement tools helps ensure safety deficiencies are addressed by railroads. FRA officials also told us that the process of adjudicating civil penalties provides a forum for FRA and railroad officials to meet to discuss safety issues. Four rail operators also told us that FRA's authority to issue civil penalties is necessary to ensure railroads' compliance with regulations.

However, a potential limitation of FRA's approach to enforcement is that it is difficult to quantify the effectiveness of FRA's civil penalties. FRA has reported that it cannot determine whether observable safety improvements are directly attributable to discrete civil penalties or whether the amount of civil penalties has any effect on safety.⁸¹ We have reported in the past about the challenges of determining the effect of penalties on compliance in tax policy, though we also noted that, despite these challenges, some analyses likely would be useful for better understanding the effect of penalties on compliance.⁸² FRA also reported, though, that according to the judgments of its inspectors, issuing civil penalties yields observable improvements in safety practices and compliance with the law. Further, according to FRA, though it does not quantify the impact of civil penalties, FRA monitors railroad responses to its enforcement activity and adjusts its oversight as necessary. More broadly, civil penalties are not meant, by themselves, to ensure railroad safety. Instead, FRA reported that it uses its entire regulatory regime as a whole to try and ensure safety. FRA officials also noted that the agency has additional tools, apart from civil penalties, to compel railroads to adopt safety practices.

⁸¹ FRA, *Fiscal Year 2016 Enforcement Report*.

⁸² GAO, *Tax Administration: IRS Should Evaluate Penalties and Develop a Plan to Focus Its Efforts*, [GAO-09-567](#) (Washington, D.C.: June 5, 2009).

A strength of FTA's rail transit safety oversight is that it seeks to improve historically weak state safety agency enforcement authorities, as described in our previous report as well stakeholders we spoke with. FTA requires state safety agencies to adopt enforcement authorities that are sufficient to enable states to compel action from rail transit agencies to address identified deficiencies. FTA has also communicated to states that it is focusing its evaluation of each state's enforcement authorities in two major areas: ensuring that the state can carry out its primary responsibility for rail transit safety in response to (1) an imminent threat to public safety on the rail transit system and (2) a lack of action or non-compliance from the rail transit operator in carrying out certain safety plans. FTA has provided states with examples of the enforcement authorities and policies state safety agencies could establish to address these specific concerns. Authorities to address imminent safety threats may include the authority to suspend rail transit agencies' operations, inspect and remove deficient equipment or system infrastructure from service, or issue an order requiring the rail transit agency to correct an unsafe condition prior to placing equipment or infrastructure back into passenger service. FTA has also provided state safety agencies with examples of authorities to address a lack of action or cooperation by the rail transit operator, including the authority to withhold or redirect funds, levy civil or criminal fines or penalties, and a formal citation or ticketing program.

Though federal law requires that state safety agencies have enforcement authorities over the safety of the rail transit entities they oversee, a limitation of FTA's approach is that FTA has not developed a method to evaluate the effectiveness of states' enforcement practices. Certified state safety agencies will be evaluated for continued compliance with FTA regulations every 3 years. This triennial review process (for rail transit safety) seeks to ensure that states are effectively carrying out their responsibilities. While FTA officials told us that they will evaluate state safety agencies' enforcement during the triennial reviews, FTA has not developed a process or methodology to evaluate whether state enforcement authorities and practices as a whole are effective. Without a method for determining the effectiveness of state safety agencies' enforcement, FTA may not have the information needed to identify ineffective safety enforcement. As a result, deficiencies may remain for long periods of time, potentially contributing to safety incidents.

Federal standards for internal control maintain that agency managers should perform a range of practices that would facilitate the establishment of a system to monitor the effectiveness of agency activities, which in the

context of FTA's mission includes the effectiveness of its rail transit safety oversight. Agency managers should define objectives clearly to enable the identification of risks, establish activities to monitor performance measures and indicators, and externally communicate the necessary quality information to achieve the entity's objectives. Internal control standards further stipulate that agency managers should perform monitoring activities regarding their internal control system and evaluate the results. To do so, federal standards for internal control state that agency managers should monitor ongoing operations and effectiveness, evaluate the results of this monitoring, and identify any changes that need to be made to achieve improvement in agency operations.

The effectiveness of state safety agency enforcement is especially important because questions have been raised about the efficacy of FTA's own enforcement mechanisms, including its ability to withhold funds from and assume direct control over safety oversight for a rail transit entity. Rail transit operators and industry association representatives we spoke with stated that FTA's authority to withhold funding from states is overly punitive, and two stakeholders said the FTA needs more precise tools. Officials from an industry association added that withholding funds can be counterproductive, as most state safety agencies are already underfunded and understaffed. FTA officials pointed to examples in which the agency successfully supported state safety agencies in compelling action from rail transit agencies as evidence that the state safety oversight model, in which FTA backs up state safety agencies, is effective. Additionally, officials from numerous state safety agencies and others questioned whether FTA has the capacity to effectively assume direct safety oversight of rail transit operators. FTA has not assumed direct safety oversight of any rail transit operators outside of WMATA, and FTA officials noted that they intend to continue supporting state safety agencies in their oversight wherever possible.

Conclusions

The approaches to rail safety oversight utilized by FRA and FTA each have strengths and limitations. However, FTA's program is currently in transition as the agency implements new authorities and responsibilities provided in federal law. Though FTA has made progress by evaluating existing rail transit safety standards and providing some guidance to states as part of the certification process, limitations in FTA's approach may still hinder the success of the state-based rail transit safety oversight program. Given the looming 2019 deadline for state safety oversight

programs to achieve FTA certification, FTA can improve its efforts to implement its new rail transit safety oversight program. In particular, without guidance from FTA on how to develop and carry out risk-based inspection programs, state safety agencies may not use limited resources efficiently, risking that important safety issues will go undetected. Further, without a method for how it will monitor the effectiveness of states safety agencies' enforcement, FTA will lack the information needed to identify ineffective state enforcement, which risks allowing safety deficiencies to remain for long periods of time. By providing this additional guidance and direction to the state safety agencies, FTA would help ensure that states are able to effectively identify and resolve rail transit safety issues.

Recommendations

We are making the following two recommendations to FTA:

- The Office of Transit Safety and Oversight should create a plan, with a timeline, for developing guidance for state safety agencies about how to develop and implement a risk-based inspection program. (Recommendation 1)
- The Office of Transit Safety and Oversight should develop and communicate a method for how it will monitor the effectiveness of the enforcement authorities and practices of state safety agencies. (Recommendation 2)

Agency Comments

We provided a draft copy of this report to DOT, NTSB, and WMATA for review and comment.

In written comments, reproduced in appendix I, DOT agreed with both our recommendations. DOT also provided technical comments, which we incorporated as appropriate.

In e-mails, NTSB and WMATA provided technical comments, which we incorporated as appropriate. NTSB noted that we do not discuss the role of system safety initiatives, such as safety management systems, in the FRA and FTA rail safety oversight programs. We agree with NTSB that system safety concepts are increasingly influencing the FRA and FTA approaches to rail safety oversight but, as NTSB also noted, both FRA and FTA lack finalized regulations codifying their approaches to system

safety initiatives. Because the extent of rail entities' implementation of these initiatives varies and is not complete we did not include an assessment of the strengths and limitations of those initiatives in our scope.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies to the Secretary of Transportation, Chairman of NTSB, General Manager of WMATA, and the appropriate congressional committees. In addition, the report will be available at no charge on GAO's website at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-2834 or goldsteinm@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Individuals who made key contributions to this report are listed in appendix II.

A handwritten signature in black ink, appearing to read 'M. Goldstein', with a long horizontal flourish extending to the right.

Mark Goldstein
Director
Physical Infrastructure Issues

Appendix I: Comments from the Department of Transportation

Appendix I: Comments from the Department of Transportation



**U.S. Department of
Transportation**

Office of the Secretary
of Transportation

Assistant Secretary for Administration

1200 New Jersey Avenue SE
Washington, DC 20590

MAR 01 2018

Mark Goldstein
Director, Physical Infrastructure Issues
U.S. Government Accountability Office (GAO)
441 G Street NW
Washington, DC 20548

Dear Mr. Goldstein:

Transportation safety is the top priority of the U.S. Department of Transportation (DOT), which remains committed to ensuring the safety of all rail passengers and employees, as well as those who interact with the rail system. Since the enactment of the Moving Ahead for Progress in the 21st Act (MAP-21) in July 2012, the Federal Transit Administration (FTA) has worked diligently to implement its new safety authority. FTA has issued five safety-related final rules, established minimum requirements for safety training, published a National Public Transportation Safety Plan, issued several safety advisories, proposed a general directive, and funded critical safety research. FTA has adopted the principles and methods of the Safety Management System (SMS) as the foundation of its safety program. Adoption of SMS by the transit industry will enable transit systems to proactively identify safety hazards and prioritize mitigating those issues that pose the greatest risk.

Since October 2015, FTA has provided direct safety oversight of the Washington Metropolitan Area Transit Authority (WMATA) Metrorail system. In this capacity, FTA has already conducted numerous inspections, audits, and accident investigations of Metrorail. FTA continues to verify WMATA's progress towards completing all required actions in their Corrective Action Plan. FTA will continue to exercise direct safety oversight of WMATA Metrorail until a new State Safety Oversight (SSO) program for Metrorail that meets Federal certification requirements is established. The lessons learned from FTA's direct oversight of Metrorail will inform the future development of guidance, technical assistance and other tools for the rail transit industry.

Upon review of the GAO's draft report, we concur with both recommendations. We will provide a detailed response to each recommendation within 60 days of the final report's issuance.

We appreciate the opportunity to respond to the GAO draft report. Please contact Madeline M. Chulumovich, Director, Audit Relations and Program Improvement, at (202) 366-6512, with any questions or if you would like to obtain additional details.

Sincerely,

A handwritten signature in black ink, appearing to read "Keith Nelson", written over a horizontal line.

Keith Nelson
Assistant Secretary for Administration

Appendix II: GAO Contact and Staff Acknowledgments

GAO Contact

Mark Goldstein, (202) 512-2834 or goldsteinm@gao.gov

Staff Acknowledgments

In addition to the contact named above, Steve Cohen (Assistant Director); Kyle Browning (Analyst in Charge); Melissa Bodeau; Lacey Coppage; Serena Lo; Sean Miskell; and Josh Ormond made key contributions to this report.

Appendix III: Accessible Data

Data Tables

Accessible Data for Key Characteristics of the Federal Railroad Administration's (FRA) and Federal Transit Administration's (FTA) Rail Safety Oversight Programs

Agency	Current status/Future plans	Safety regulations	Oversight activities	Enforcement mechanisms
Federal Railroad Administration	Current status	Has extensive regulations covering various aspects of railroad industry	Conducts safety compliance inspections and investigations	Utilizes a variety of tools, including civil penalties, to resolve safety issues
Federal Railroad Administration	Future plans	Update existing regulations	Continue to use and update risk-based model to guide inspections	Enhance effectiveness of tools to improve safety, including increased penalties
Federal Transit Administration	Current status	Has regulations implementing statutory changes to safety program	Relies on states to conduct safety oversight activities, though it now has inspection authorities	Relies on state safety agencies to enforce safety and monitors these agencies for compliance
Federal Transit Administration	Future plans	Assess specific areas to determine need for safety regulations	Recommend that state safety agencies develop risk-based inspection programs	Require that state safety agencies develop stronger enforcement mechanisms

Accessible Data for Figure 3: Key Characteristics of the Federal Railroad Administration's (FRA) and Federal Transit Administration's (FTA) Rail Safety Oversight Programs

Agency	Current status/Future plans	Safety regulations	Oversight activities	Enforcement mechanisms
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Agency	Current status/Future plans	Safety regulations	Oversight activities	Enforcement mechanisms
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Agency Comment Letter

Accessible Text for Appendix I: Comments from the Department of Transportation

U.S. Department of Transportation

Office of the Secretary of Transportation

Mark Goldstein

Director, Physical Infrastructure Issues

U.S. Government Accountability Office (GAO)

441 G Street NW

Washington, DC 20548

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Sincerely,

Keith Nelson

Assistant Secretary for Administration

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