Transit Safety and Oversight Spotlight

U.S. Department of Transportation
Federal Transit Administration

Message from the Associate Administrator

Aug. 2019
Vol. 4 No. 7

Dear Transit Colleagues,

FTA's Joint State Safety Oversight (SSO) and Rail Transit Agency (RTA) Workshop is right around the corner. The workshop will be held Monday, September 23, through Thursday, September 26, 2019, in Washington, DC. I am looking forward to providing important updates on our safety programs, along with my FTA Transit Safety and Oversight colleagues. We will kickoff with a one-day, rail-focused Public Transportation Agency Safety Plan (PTASP) session to provide a deep dive on the requirements, Safety Management System (SMS) components, and available tools and resources to assist with developing and implementing your Agency Safety Plans. The workshop will also include a Human Trafficking Panel where industry leaders will provide their insights on efforts to combat this terrible crime. There is still time to register if you haven't done so already.

In July, FTA's Office of System Safety hosted two PTASP bus workshops in Atlanta, and three in August in Chicago and San Francisco. The goal of the workshops was to train as many transit agencies and State Departments of Transportation (DOT) as possible, who are required to develop and implement an Agency Safety Plan (ASP) by the July 20, 2020 compliance deadline, on the requirements of the rule and strategies for reaching compliance. Participants were able to ask their PTASP questions and share experiences from their transit agencies. Workshop materials are available on the PTASP resources web page. We plan to announce additional PTASP workshops later this year.

Henrika Buchanan, Associate Administrator for Transit Safety and Oversight

On August 14-16, 2019, FTA completed the 18th Biennial State Programs Meeting and State Public Transportation Partnerships Conference in Washington, DC. The conference brought together FTA regional and headquarters staff, and State DOTs and transit associations to learn more about FTA's programs. Participants learned about top findings from FTA's State Management Reviews, PTASP requirements for State DOTs, Drug and Alcohol program updates, and other public safety initiatives, including human trafficking .

As you can see, there is a lot going on in safety and oversight at FTA. Stay tuned for more important announcements in the coming weeks.

Sincerely,
Henrika Buchanan

Upcoming Safety Training

FTA sponsors several safety training courses, including those listed below. The complete schedule of training courses offered through September 2019 is available on FTA's safety website. Please contact the FTA-sponsored Transportation Safety Institute (TSI) at (405) 954-3682 for safety training registration and course information. Individuals may contact FTA's Safety Promotion Team at FTASafetyPromotion@dot.gov to request an Individual Training Plan (ITP). Participants in the Public Transportation Safety Certification Training Program have three years to complete their ITP requirements.

Courses Required by the Public Transportation Safety Certification Training Program (RAIL)*		
Effectively Managing Transit Emergencies	San Francisco, CA	Sept. 23-26
SMS Awareness (eLearning)	On demand at tsi.dot.gov	Available 24/7
Transit Rail Incident Investigation	Fort Worth, TX	Sept. 9-13
Transit Rail System Safety	Seattle, WA	Sept. 16-20
ADDITIONAL COURSES: Bus and Rail Courses (In Person)		
Advanced Rail Incident Investigation	White Plains, NY	Sept. 16-20
Instructor's Course for Transit Trainers	Boise, ID	Sept. 9-13
Transit Supervisor Certification Course	Dover, DE	Sept. 9-13
Transit System Security	Landover, MD	Sept. 16-20
ADDITIONAL COURSES: eLearning Courses (Web Based)		
Curbing Transit Employee Distracted Driving	On demand at tsi.dot.gov	Available 24/7
Fatigue and Sleep Apnea Awareness for Transit Employees	On demand at tsi.dot.gov	Available 24/7
Rail Nomenclature	On demand at tsi.dot.gov	Available 24/7
Bus Nomenclature	On demand at tsi.dot.gov	Available 24/7

Training dates past September 2019 will be published once the Fiscal Year 2020 schedule is available.

*Applies to SSOA personnel and contractors who conduct safety audits and examinations of public transportation systems not subject to Federal Railroad Administration regulation, as well as rail fixed guideway public transportation system personnel and contractors who are directly responsible for safety oversight. Other safety personnel, including those from bus agencies, are encouraged to participate in the voluntary program.

# Developing an Employee Safety Reporting Program for Agency Safety Plans

The Public Transportation Agency Safety Plan (PTASP) regulation (49 C.F.R. Part 673) requires recipients and subrecipients of Section 5307 funds to develop Agency Safety Plans (ASP) based on Safety Management System principles and methods. The **PTASP regulation** requires an Employee Safety Reporting Program (ESRP) that includes the following elements:

✓ Process that allows employees to report safety conditions to senior management;

✓ Protections for employees who report safety conditions to senior management;

✓ Description of employee behaviors that may result in disciplinary action, and therefore are excluded from protection; and

✓ Communication on actions taken in response to employee reports.

The PTASP regulation requires agencies to establish and implement a process that allows all employees—including relevant contract employees—to report safety conditions to senior management. The regulation doesn't specify reporting methods for ESRPs; however, examples include hotlines, paper or online forms, apps, designated emails, meetings, or third-party reporting.

ESRPs must specify protections for employees who report safety conditions and describe employee behaviors that are not covered by protections. The PTASP regulation allows flexibility for agencies to determine the protections that work best for their ESRPs. Examples of protections include whistleblower protections, confidentiality, and non-punitive reporting programs.

The **ESRP process** is a reporting cycle that can serve as a critical source of safety data. Frontline employee safety reporting is often the richest source of data for an agency. The information collected through an ESRP can inform Safety Risk Management processes that help identify hazards and prioritize mitigations to proactively manage safety risk, and Safety Assurance processes that monitor and evaluate mitigations to help ensure they are effective.

ESRP Reporting Cycle
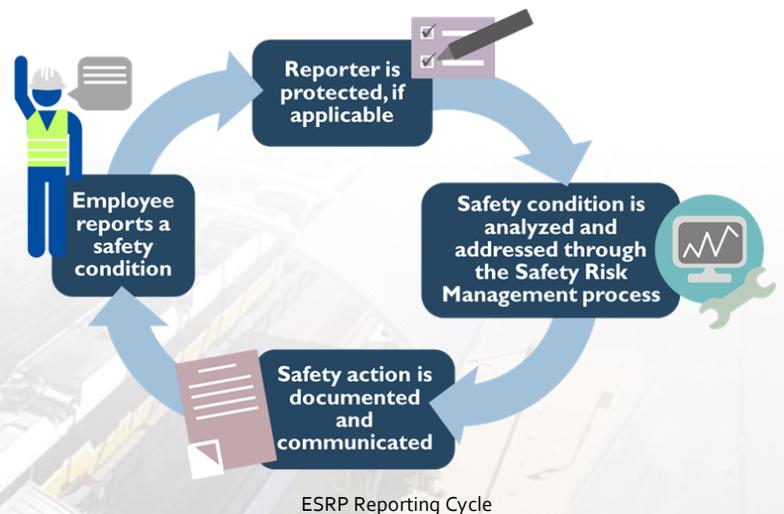
When beginning the ESRP implementation process, agencies may first consider assessing organizational readiness. This can involve identifying goals and applicable stakeholders, along with evaluating resource and design considerations, to better understand potential areas of strength or concern.

Recently, FTA held a webinar on this topic and provided further information on optional considerations when designing ESRPs. The presentation and recording are available on the PTASP web page. If you have questions on ESRPs, please contact Aloha Ley.

The guidance in this document is not legally binding in its own right and will not be relied upon by the Federal Transit Administration as a separate basis for affirmative enforcement action or other administrative penalty. Compliance with the guidance in this document (as distinct from existing statutes and regulations) is voluntary only, and noncompliance will not affect rights and obligations under existing statutes and regulations.

Lessons Learned from CTA's Safety Risk Management Pilot

John Ekblad, SMS Implementation Lead, Chicago Transit Authority

In 2018, the Chicago Transit Authority (CTA) initiated a Safety Risk Management (SRM) pilot for its bus operations. CTA tested SRM processes within a segment of the agency before conducting an agency-wide rollout. CTA's Safety Management System (SMS) Implementation Lead, John Ekblad, shares several observations and key takeaways from the pilot.

Safety departments may own the SRM process, initially. Under SMS, the safety department's responsibility transitions towards safety data analysis and oversight of SRM and Safety Assurance (SA), and operations managers conduct SRM activities with input from the safety department. CTA evaluated how to implement this transition on a very aggressive timetable and found that they needed a more gradual approach, primarily to address safety risk assessment consistency and workload concerns.

When relying on safety risk assessments to prioritize an agency's resources, the techniques used to perform risk assessments must be consistent. CTA initially called for operations managers to perform safety risk assessments on their own, but found that it was difficult to ensure consistency among a large group. Instead, safety risk assessments remained the responsibility of safety specialists, who consulted with subject matter experts in operations to confirm consistency in their assessments. Agencies can support consistency by incorporating checks as a part of weekly meetings, and ask each safety specialist to explain how they arrived at their risk assessment and adjust as needed.

To minimize workload issues, consider training safety specialists to become experts in the SRM process and use them to socialize SRM concepts with operations managers. After operations managers are comfortable with the concepts that underpin SRM and how SRM activities are conducted, an agency can shift toward operations managers conducting SRM activities independently.

Focus on the process, not the results. CTA created SharePoint® forms to formalize SRM activities and store safety risk information in an easy to review and analyze format for all stakeholders. CTA focused on the type of information managers entered on the forms, how personnel met to conduct SRM activities, and the responsibilities designated to roles.

Once an agency is ready to test SRM and/or SA activities, don't measure success by whether long-standing safety concerns are solved or how quickly new safety concerns are resolved. Put the process to work and ask, "Is this sustainable?" and "Does it generate the type of information necessary to make informed decisions?" This will help alleviate pressure on resources testing out new processes and allow for a more open exchange of thoughts and concerns on the process.

Process refinement is key. CTA began with nine forms and, after receiving feedback, consolidated to the following six:

1. *Safety Concern Reporting Form,*
2. *Operational System Description,*
3. *Hazard Identification,*
4. *Safety Deficiencies,*
5. *Safety Risk Assessment,* and
6. *Safety Risk Mitigation*.

The forms are linked together by a Safety Concern ID, allowing previously entered information to pre-populate, and have a customized view for managers to conduct reviews. CTA also adjusted its process towards a collaborative exchange of information—safety specialists ask key questions upfront to capture the necessary information and complete the forms later—to save time for both safety specialists and bus operations managers. In addition, CTA worked within the limitations of its available software so that the lessons learned from the pilot would be applicable to most agencies and to avoid setting a precedent for "buying an SMS."

Prior to CTA's second SRM test, CTA decreased the initial SRM workload for operations managers by minimizing the required training. CTA transitioned from an eight-hour training session to a one-hour, "on-the-job" style training covering SRM concepts and the *Safety Concern Reporting Form*. The training was easier for operations managers to understand and provided a more positive association with SMS, allowing for more natural participation and an accepting attitude towards upcoming changes.

Understand the system constraints of the test site. CTA first tested its SRM process at one of its seven bus garages. Consider the implications of using a new management tool at one site while other sites continue to use the tools already in place. A solid SMS allows agencies to effectively allocate resources, so it is important to integrate the new process into big picture decision making, such as during department-wide safety meetings, for the best results.

Set expectations upfront and obtain management support. When establishing how an agency will test the SRM or SA process, ensure that upper management can oversee testing efforts and participate as they would under full implementation. Avoid the idea that testing SRM is optional by setting expectations for senior management that SRM outputs will serve as the primary records of SRM activities and related decisions about safety. Senior management should use SRM outputs to verify whether safety concerns are addressed or particular mitigations are in place in order to lend credibility to the SRM process.

As agencies embark on this important and exciting journey keep in mind two important points: Train your safety personnel to become experts in your agency's SRM process and leverage them to socialize SRM with operations managers on the road to full implementation. For questions on the pilot, please contact Paulina Orchard.
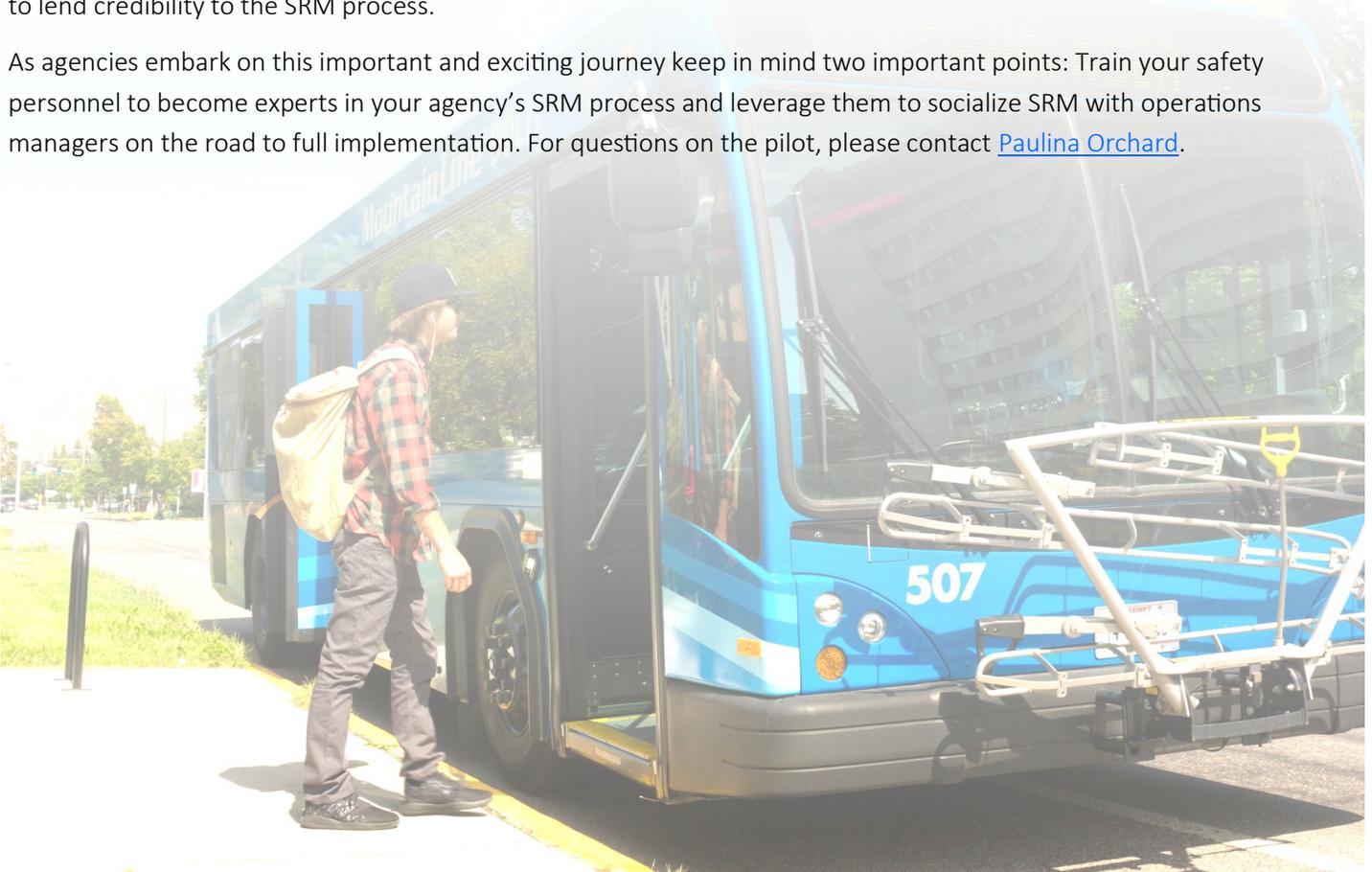
FTA to Host Safety Management System for Executives Training

FTA will host a *Safety Management System (SMS) for Executives: Preparing for SMS Implementation* session as a part of the American Public Transportation Association (APTA) TRANSform Conference on Saturday, October 12, 2019 from 9:00 AM to 12:00 PM.

This FTA-led session will cover the Public Transportation Agency Safety Plan (PTASP) regulation (49 C.F.R. Part 673) requirements and discuss transit agency leadership's role in developing and implementing an Agency Safety Plan. Additionally, the session will provide an overview and discuss key benefits of SMS, review PTASP resources available to support SMS implementation, and help identify next steps and actions agencies can take to prepare for the July 20, 2020 compliance deadline.

APTA TRANSform Conference attendees can email APTA's Emani Lee-Odai to register. For questions about the session, please contact FTA's Candace Key.

FTA Hosts Public Transportation Agency Safety Plan Bus Workshops

In July and August, the Office of System Safety hosted one-day Public Transportation Agency Safety Plan (PTASP) bus workshops in Atlanta, Chicago, and San Francisco. Participants included transit agency and State Department of Transportation personnel from across the country who are responsible for drafting and implementing their Agency Safety Plans by the July 20, 2020 compliance deadline. The workshops provided hands-on exercises and tools to better understand PTASP requirements and the four components of Safety Management Systems (SMS).

Materials from the workshops can be found on the PTASP Resources web page. If you have questions on the workshops or PTASP requirements, contact Candace Key, Director of the Office of System Safety.

Participants ask questions on developing Agency Safety Plans (ASP) and share their experiences developing an ASP at their organizations at the Atlanta PTASP Bus workshop on July 23, 2019.

CTA President Dorval Carter shares experiences and insights gained from participating in FTA's SMS implementation pilot with participants at the Chicago PTASP workshop on August 7, 2019. Attendees left with useful tools for engaging stakeholders to begin drafting their agency's safety plans and many expressed the value of having FTA safety staff on-site to answer questions in real-time.
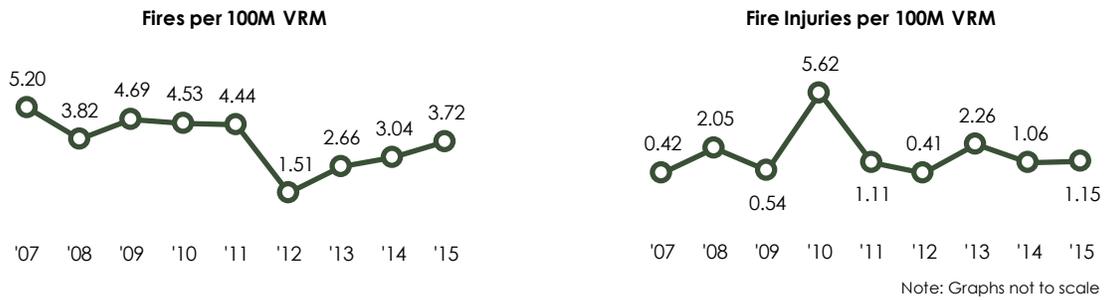
Data Spotlight: Fires

The Transit Safety and Oversight Spotlight includes a "Data Spotlight" to share safety data trends and highlight data sets that may help the industry identify safety performance targets for their Agency Safety Plans.
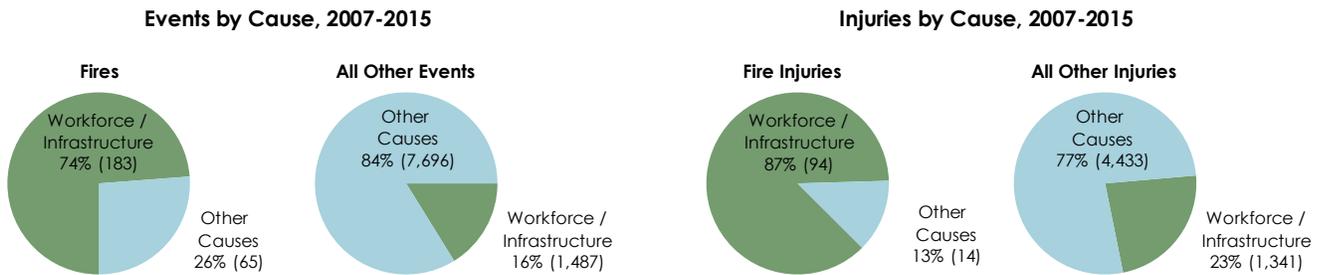
This month, we focus on fire data for rail transit modes, as reported by State Safety Oversight Agencies (SSOAs). Fires include all events that result from uncontrolled combustion and require flame suppression.* Additional data is available in FTA's Rail Safety Data Report. Questions? Please contact FTA's Dharm Guruswamy.

Between 2007 and 2015, FTA required SSOAs to report all fires that exceeded 49 C.F.R. Part 659 thresholds. During this nine-year period, SSOAs reported 248 fires that resulted in two fatalities and 108 injuries.

The graphs below depict the fire and resulting injury rates per 100 million vehicle revenue miles (100M VRM) from 2007 to 2015. Between 2007 and 2012, SSOAs generally reported fewer fires per 100M VRM. However, starting in 2013, the rate rose each year. SSOAs reported only two fire fatalities—one in 2012 and one in 2013.

Fires per 100M VRM

	'07	'08	'09	'10	'11	'12	'13	'14	'15
	5.20	3.82	4.69	4.53	4.44	1.51	2.66	3.04	3.72

Fire Injuries per 100M VRM

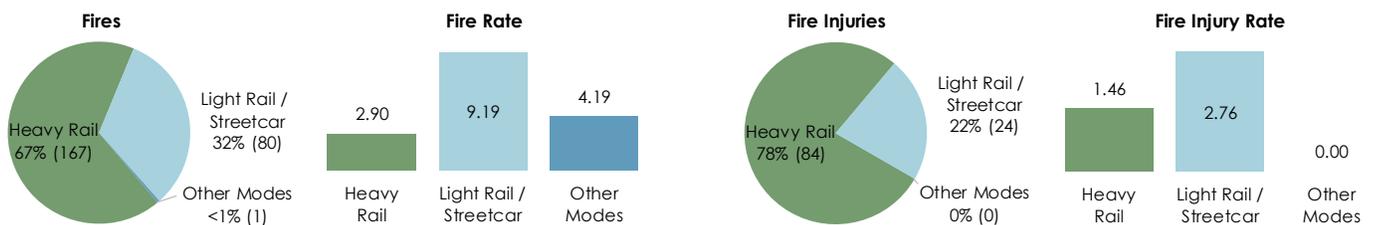|	'07	'08	'09	'10	'11	'12	'13	'14	'15
	0.42	2.05	0.54	5.62	1.11	0.41	2.26	1.06	1.15

Note: Graphs not to scale

Between 2007 and 2015, workforce behavior and infrastructure issues caused nearly 75 percent of all fires and 87 percent of fire injuries, as reported by SSOAs. In contrast, only 16 percent of all other SSOA-reported events and 23 percent of reported injuries were tied to these issues. Neither workforce behavior nor infrastructure issues caused the two fatal fires reported during this time period.

Events by Cause, 2007-2015

Fires:
- Workforce / Infrastructure 74% (183)
- Other Causes 26% (65)

All Other Events:
- Other Causes 84% (7,696)
- Workforce / Infrastructure 16% (1,487)

Injuries by Cause, 2007-2015

Fire Injuries:
- Workforce / Infrastructure 87% (94)
- Other Causes 13% (14)

All Other Injuries:
- Other Causes 77% (4,433)
- Workforce / Infrastructure 23% (1,341)

SSOAs reported fires in all rail modes between 2007 and 2015. Most fires and injuries occurred in heavy rail modes. However, when accounting for differing service levels, a higher number of fires per VRM took place in light rail and streetcar modes. The two fire fatalities reported during this time frame occurred in heavy rail modes.

Fires, Fire Injuries, and Rates per 100M VRM by Mode, 2007-2015

Fires:
- Heavy Rail 67% (167)
- Light Rail / Streetcar 32% (80)
- Other Modes <1% (1)

Fire Rate:
- Heavy Rail 2.90
- Light Rail / Streetcar 9.19
- Other Modes 4.19

Fire Injuries:
- Heavy Rail 78% (84)
- Light Rail / Streetcar 22% (24)
- Other Modes 0% (0)

Fire Injury Rate:
- Heavy Rail 1.46
- Light Rail / Streetcar 2.76
- Other Modes 0.00

Note: Graphs not to scale

*When there is no flame suppression, SSOAs report fires as "other" events (e.g., only smoke or odor present)

TSO Profile

This month's profile includes a Q&A with Marjorie Collins, Program Analyst, Office of System Safety.

Marjorie Collins, Program Analyst, Office of System Safety

How would you explain your job to someone you've never met? My primary responsibility is to help transit agencies understand and implement Safety Management Systems (SMS). An effective SMS strengthens an agency's safety culture and helps address risks before an accident or mechanical failure occurs. I develop guidance and training materials to support transit agencies with incorporating SMS into their policies and procedures, and implementing SMS in their daily practices, including employee safety reporting and training.

What is your favorite part of your job? I enjoy communicating our key messages to transit agencies and translating FTA's requirements into clear, actionable guidance. Additionally, I recently had the opportunity to participate in the technical review of applications for FTA's Grants for Buses and Bus Facilities Program (49 U.S.C. 5339). It was educational and gratifying to support agencies which replaced their old buses and aging infrastructure.

What were you doing prior to this role? Before joining FTA, I worked at Washington Metropolitan Area Transit Authority (WMATA) for almost eight years. While at WMATA, I earned my Rail Transit Safety and Security Program Certificate and tried to incorporate SMS into new and existing policies and procedures. I worked with teams of maintenance managers, engineers, mechanics, technicians, and a broad range of trades and craftsmen. Our goal was to correct safety deficiencies, prevent systems from failing, and improve the overall safety of employees and passengers.

What led you to work in transit? When I was working for the Parsons Corporation Infrastructure and Technology Group in San Antonio, Texas, I accepted a project offer with the transportation group and relocated to Washington, D.C. The project involved writing escalator maintenance procedures due to an escalator collapse at L'Enfant Plaza. When I first moved to the District in 1987, I thought the D.C. Metro was the most elegant underground system I had ever experienced. Coincidentally, I eventually came back to work for the transit system.

What are some current projects or initiatives that you or your team are working on? I am working on an SMS Bus Pilot Program with the Maryland Transit Authority and its bus agencies in Montgomery, Frederick, and Charles counties, supporting the Public Transportation Agency Safety Plan requirements. In June, we met with two of the agencies to introduce SMS and discuss ways to incorporate SMS elements into their current practices. As we work with these bus agencies, we are testing and improving FTA's SMS materials and methodologies. Ultimately, the SMS Bus Pilot Program helps us to share and communicate more effective SMS guidance to other bus agencies across the country.

What is your favorite form of transportation and why? Trains are my favorite form of travel, perhaps for nostalgic reasons as I took a train ride for the first time in Europe years ago. I believe there is no comparable means to enjoy a landscape, and the views along some train routes cannot be experienced by any other mode. Additionally, if I can start or end my train travel with a beautiful train station, it's perfect.

What are your hobbies and interests outside of work? I enjoy traveling to historic sites, visiting art museums, and discovering good restaurants. I also try to oil paint, which is more of an obsession than a hobby. It is difficult to know when a painting is finished, or when to accept I cannot make it any better.

Next TRACS Meeting Announced for September 9-10, 2019

FTA announced the next Transit Advisory Committee for Safety (TRACS) meeting is scheduled for September 9-10, 2019 at the National Highway Institute, 1310 North Courthouse Road, Suite 300, Arlington, VA. TRACS is a federal advisory committee that provides recommendations to FTA on transit safety.

In March, FTA Acting Administrator K. Jane Williams tasked the committee to review and assess emerging technologies and innovations that have the potential to significantly improve safety in public transportation. TRACS is continuing its research on innovations and safety technologies that could assist in the areas of employee reporting systems, roadway worker protections, and suicide and trespass prevention.

TRACS meetings are open to the public. Members of the public wishing to attend the meeting should send an email request to TRACS@dot.gov by September 4, 2019. A conference line will be available during the meeting and the number to dial-in will be posted to the TRACS website. Submit written comments or suggestions before or after the meeting to TRACS@dot.gov. Meeting materials, including meeting minutes, will be posted to the website after the meeting.
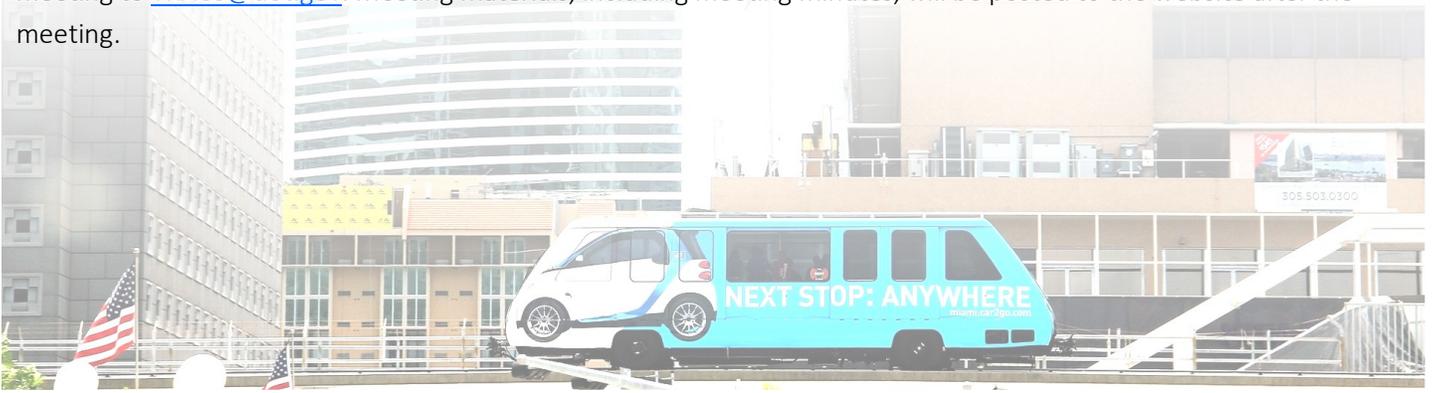
U.S. Department of Transportation

Federal Transit Administration

Federal Transit Administration
Office of Transit Safety and Oversight
1200 New Jersey Avenue SE
Washington, DC 20590

https://www.fta.dot.gov/regulations-and-guidance/safety/transit-safety-oversight-tso

Upcoming TSO Speaking Events

Midwest/SW Transit Conference

September 11 | Kansas City, MO

FTA Joint State Safety Oversight (SSO) and Rail Transit Agency (RTA) Workshop

September 23-26 | Washington, DC

APTA TRANSform Conference

October 12-15 | New York, NY