Presentation Overview

- State of Rail Transit Safety

  - Rail Safety Concerns: Suicides & Collisions with People

- Protecting Transit Workers from Assaults

  - Responses to FTA's Special Directive - Required Actions Regarding Transit Worker Assault

- Safety Risk Management & Rail Customer Assaults

- Expanded Assault Reporting - NTD Safety and Security Reporting Changes and Clarifications

- Risk Based Inspection Program

- FTA Safety Policy Activities

  - PTASP & the NPRM

State of Rail Transit Safety

Fatalities per 100 Million Vehicle Revenue Miles (VRM)

19.40 — FY17
19.28 — FY18
20.23 — FY19
25.59 — FY20
25.06 — FY21
29.68 — FY22

Injuries per 100 Million Vehicle Revenue Miles (VRM)

770.02 — FY17
781.34 — FY18
816.11 — FY19
641.31 — FY20
587.64 — FY21
660.01 — FY22

Sources of Rail Fatalities

Suicides and Suicide Attempts
- **F: 35%**
- **I: 1%**

Collisions between RTV* and People
- **F: 40%**
- **I: 4%**

Homicides and Assaults
- **F: 10%**
- **I: 14%**

Personal Injuries on the Right-of-Way
- **F: 5%**
- **I: 0.2%**

All Others
- **F: 9%**
- **I: 80%**
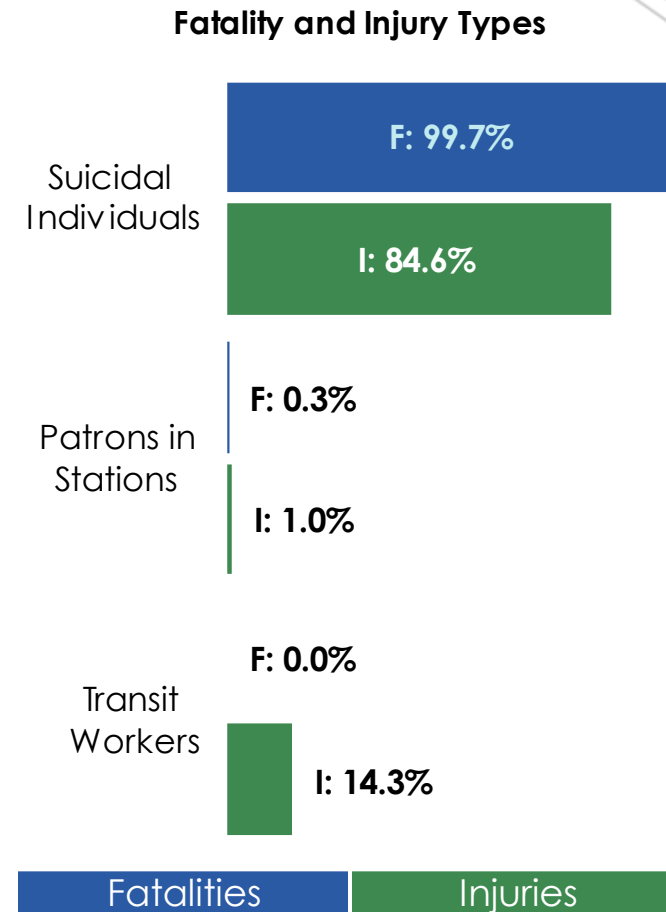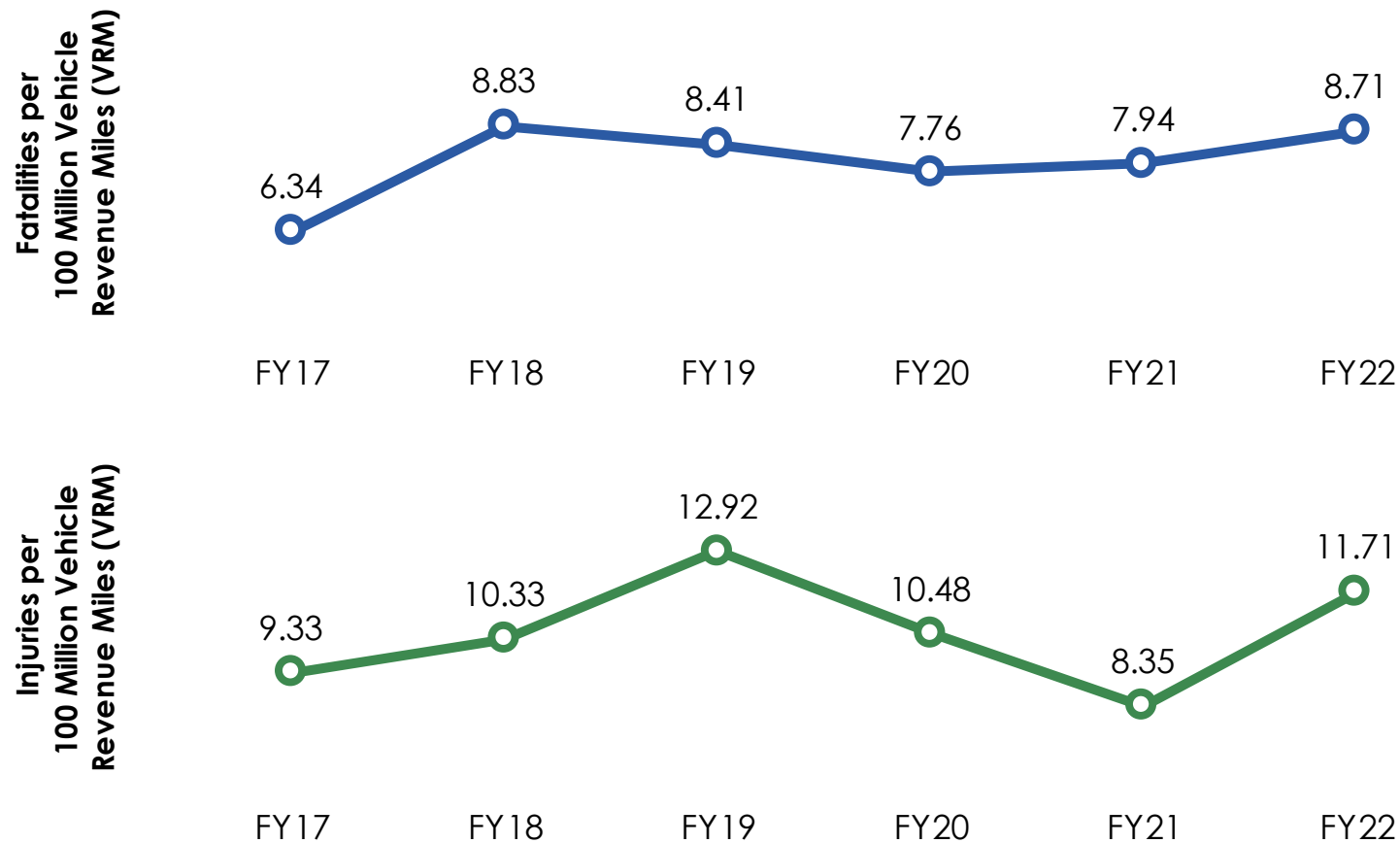
Fatalities | Injuries

Source: National Transit Database (NTD)
FY 2022 data are preliminary

Data as of: May 2, 2023
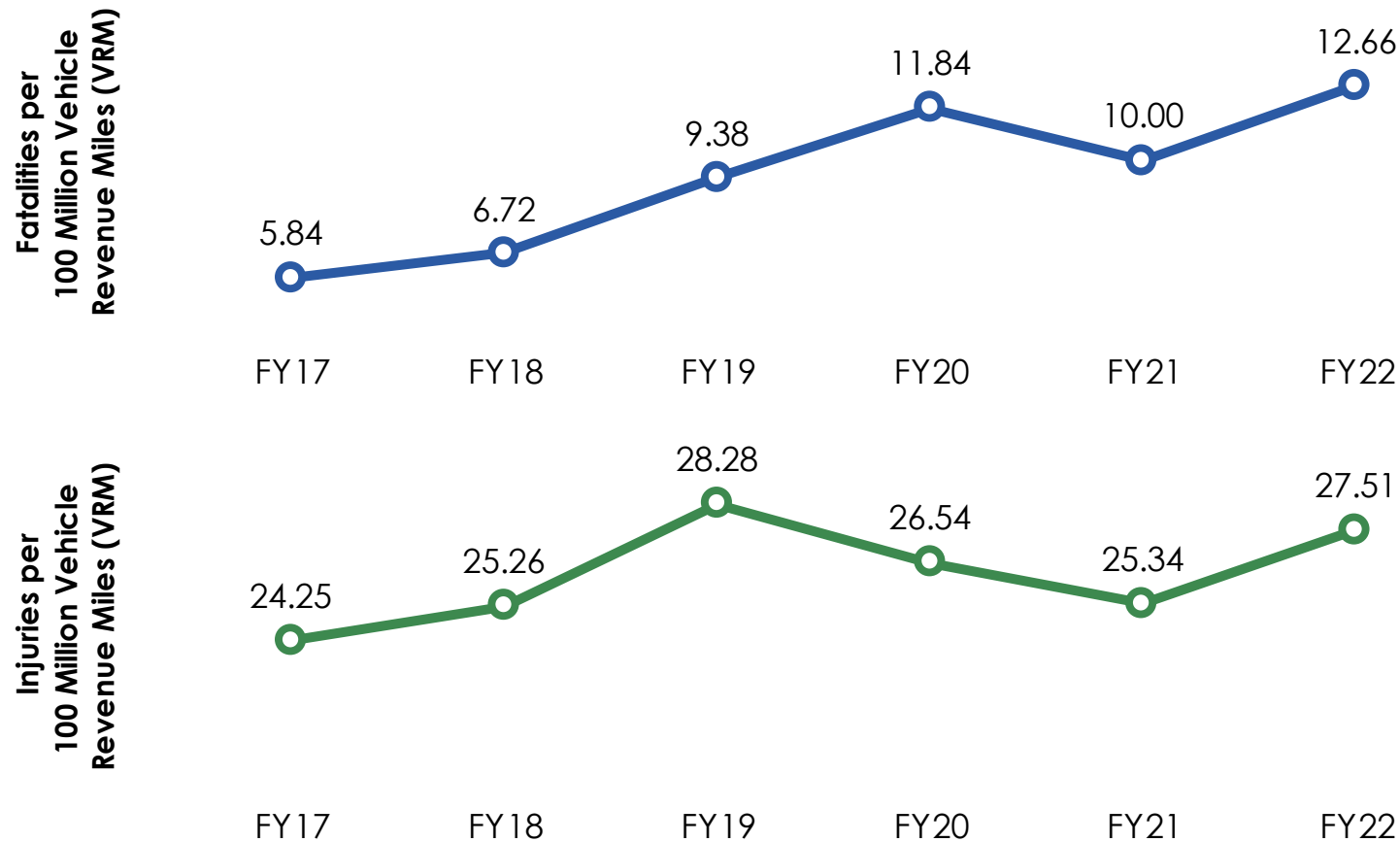*Rail Transit Vehicles*

Rail Safety Concern: Suicides

Fatality and Injury Types

Fatalities per 100 Million Vehicle Revenue Miles (VRM)

FY17	FY18	FY19	FY20	FY21	FY22
6.34	8.83	8.41	7.76	7.94	8.71

Injuries per 100 Million Vehicle Revenue Miles (VRM)

FY17	FY18	FY19	FY20	FY21	FY22
9.33	10.33	12.92	10.48	8.35	11.71

Suicidal Individuals
- F: 99.7%
- I: 84.6%

Patrons in Stations
- F: 0.3%
- I: 1.0%

Transit Workers
- F: 0.0%
- I: 14.3%

Fatalities | Injuries

Source: National Transit Database (NTD)
FY 2022 data are preliminary

Data as of: May 2, 2023

Rail Safety Concern: Collisions with People

Fatalities per 100 Million Vehicle Revenue Miles (VRM)

FY17	FY18	FY19	FY20	FY21	FY22
5.84	6.72	9.38	11.84	10.00	12.66

Injuries per 100 Million Vehicle Revenue Miles (VRM)

FY17	FY18	FY19	FY20	FY21	FY22
24.25	25.26	28.28	26.54	25.34	27.51

Fatality and Injury Types

Type	Fatalities	Injuries
Bicyclists & Pedestrians	F: 69%	I: 40%
Passengers on Trains	F: 7%	I: 3%
Patrons in Stations	F: 19%	I: 46%
Transit Workers	F: 1%	I: 9%
All Others	F: 4%	I: 1%

Source: National Transit Database (NTD)

FY 2022 data are preliminary
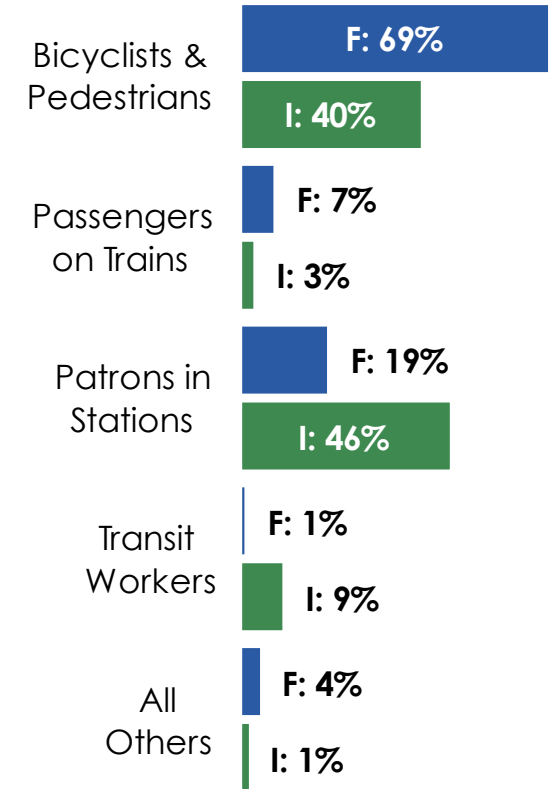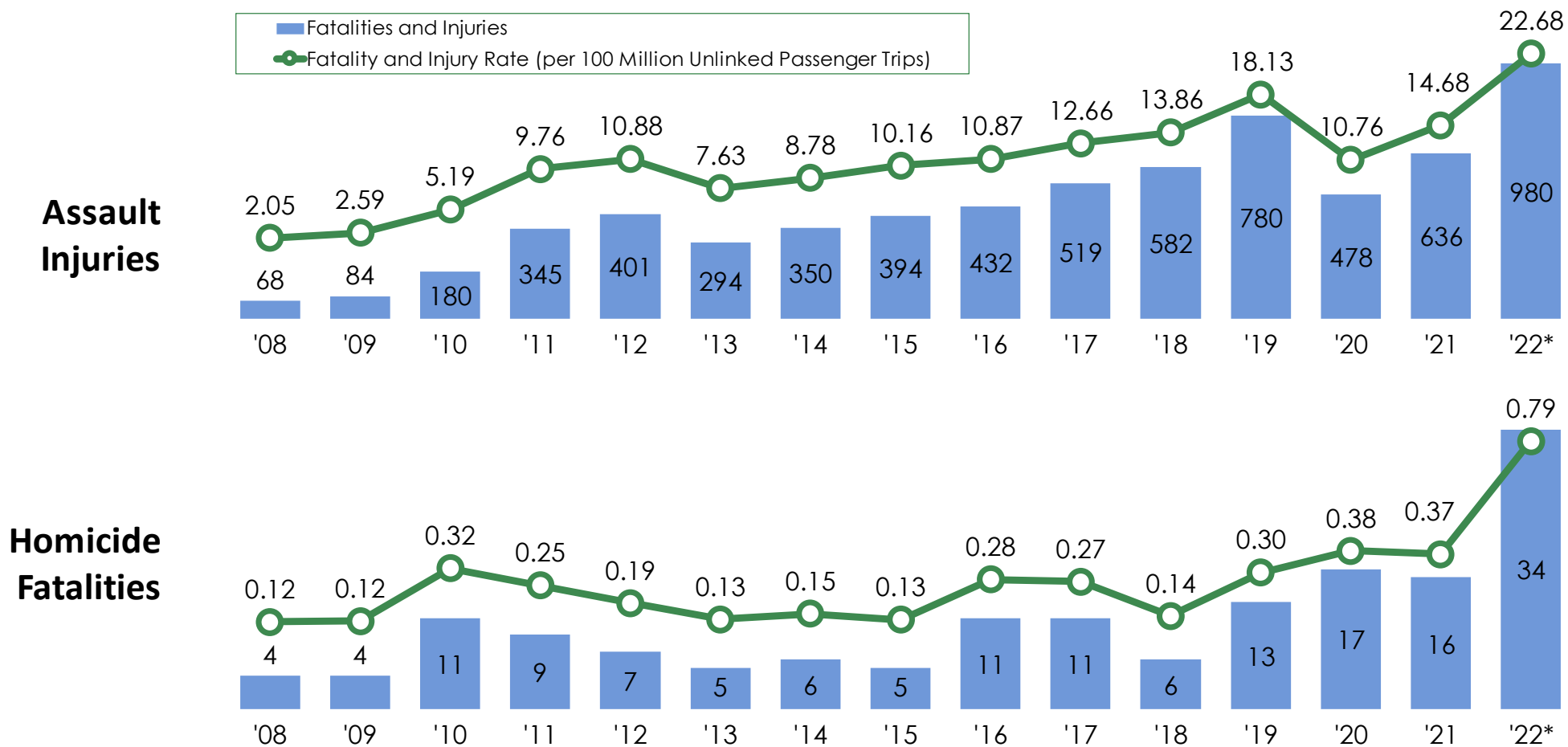
Data as of: May 2, 2023

Safety Risk Management Safety Topics

Safety Topic	Step 1: Safety Risk Identification and Assessment	Step 2: Develop Mitigations	Step 3: Implement Mitigations	Step 4: Monitor Mitigation Performance
Inward- and Outward-Facing Cameras	✓	✓	✓	In progress
Roadway Worker Protection	✓	✓	In progress	
Transit Worker Assault Prevention	✓	✓	In progress	
Signal System Safety	✓	✓	✓	In progress
End-of-Railcar Door Messaging	✓	✓	✓	In progress
Bus-to-Person Collisions	✓	✓	In progress	
Transit Customer Assault Prevention	In progress			
Train-to-Privately Owned Vehicles (POV) Collisions at Rail Grade Crossing (RGX)	In progress			
Fitness for Duty	✓	✓	In progress	

Rail Customer Assault Trends, 2008–2022*

Assault Injuries (top chart)

Legend:
- Fatalities and Injuries
- Fatality and Injury Rate (per 100 Million Unlinked Passenger Trips)

Year	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22*
Fatalities and Injuries	68	84	180	345	401	294	350	394	432	519	582	780	478	636	980
Rate	2.05	2.59	5.19	9.76	10.88	7.63	8.78	10.16	10.87	12.66	13.86	18.13	10.76	14.68	22.68

Homicide Fatalities (bottom chart)

Year	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22*
Fatalities	4	4	11	9	7	5	6	5	11	11	6	13	17	16	34
Rate	0.12	0.12	0.32	0.25	0.19	0.13	0.15	0.13	0.28	0.27	0.14	0.30	0.38	0.37	0.79

Source: National Transit Database (NTD)

2022 data are preliminary

Data as of: May 2, 2023

Rail Customer Assault Data Overview

Rail Customer Assault Data by Location, 2008-2022*

	Reportable Assault and Homicide Events	Homicide Fatalities	Assault Injuries
Total	8,309	159	6,523
In Vehicles	2,718	51	2,272
In Stations	5,583	108	4,243
All Others	8	0	8

Source: National Transit Database (NTD)

2022 data are preliminary

Special Directives: Required Actions Regarding Transit Worker Assault

Special Directives issued on October 4, 2022 to nine transit agencies who reported 79% of assaults on transit workers to the NTD between 2016-2021.

General	Agency contact information and Agency Safety Plan (ASP)
Safety Risk Assessment	Has agency performed safety risk assessment related to transit worker assault?
Safety Risk Mitigations	Has agency implemented safety risk mitigations to address transit worker assault risk, such as operator area protective barriers? If yes, status and available data on effectiveness?

Safety Risk Assessment

In Progress:
1 agency

Completed after issuance of Special Directive and prior to submission of response to FTA:
1 agency

Planned for 2023:
3 agencies

Completed prior to issuance of Special Directive:
4 agencies
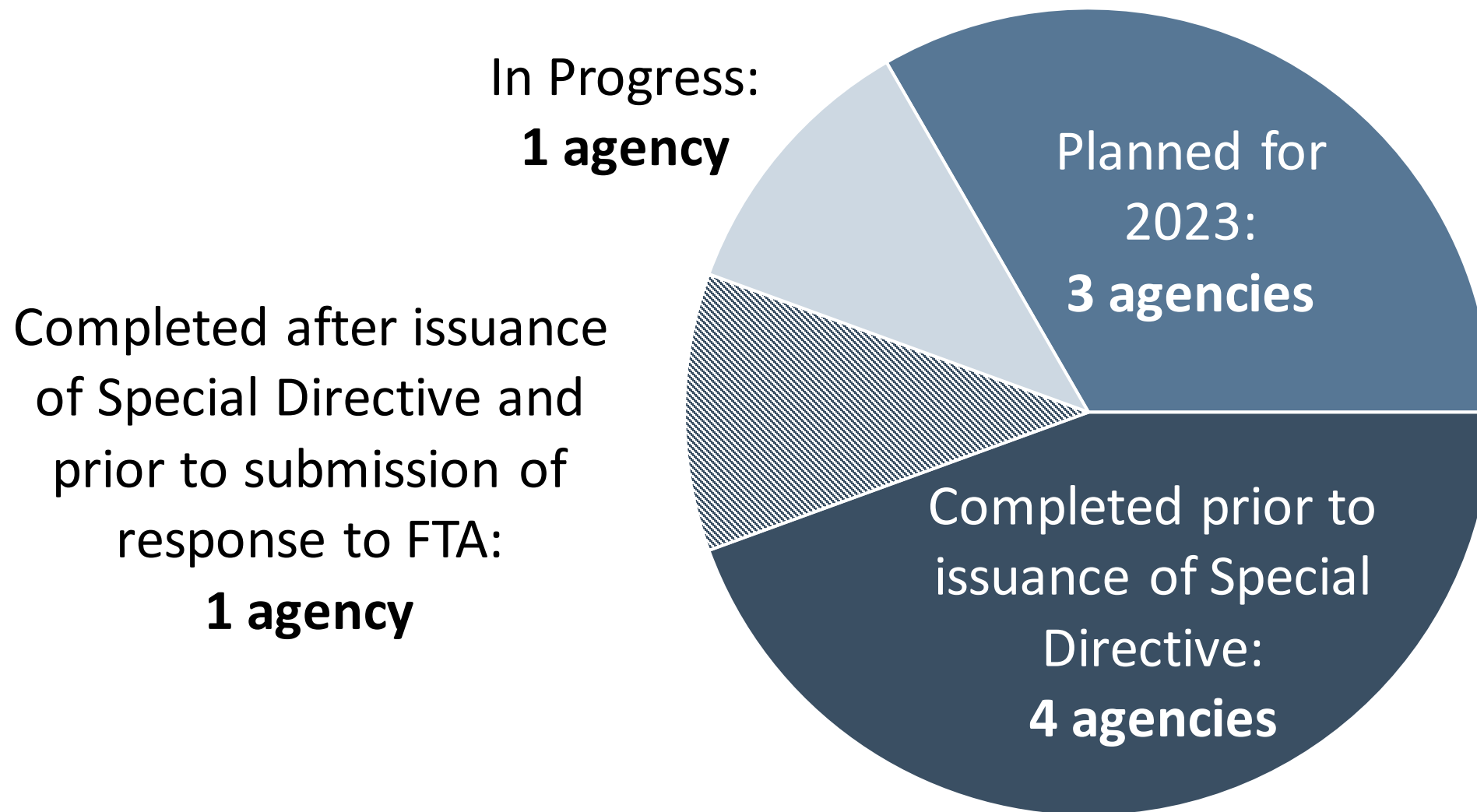
Safety Risk Mitigations

Safety Risk Mitigation	# Agencies	Complete	In Progress
Operator Area Protective Barriers	9	5	4
De-Escalation Training Program	8	6	2
Video and Audio Surveillance	8	7	1
Policing Strategies	7	7	-
Operating Procedures and Training	6	6	-
Emergency/Silent Alarms	6	6	-
Automatic Vehicle Location	4	4	-
Communication Devices and Protocols	4	4	-
Public Awareness Campaigns	3	3	-
Surveillance/Penalty Signage	3	2	1

Safety Risk Mitigation Monitoring

Eight agencies provided information on monitoring mitigation effectiveness.

One agency described key performance indicators relating to transit worker assault.

Seven agencies described monitoring the effectiveness of all mitigations layered together rather than each individual mitigation.

Six agencies described using post-event analysis and reviews to monitor mitigation effectiveness.

One agency described using feedback on training as a mechanism to support mitigation effectiveness.

Research Plan

Goals

- Better understand the nature of transit customer assaults

- Learn from agencies about successful mitigations

Phase 1: Summer 2023

- Conduct transit agency interviews through the Volpe National Transportation Systems Center

Expanded Assault Reporting

Federal Register Notice: [NTD Safety and Security Reporting Changes and Clarifications](#) published February 2023

Before NTD Updates	After NTD Updates
• FTA collected only transit worker assault data that qualified as **major events** from full reporters to NTD • **Major events** involve one or more fatalities or injuries requiring medical transport	• FTA will collect all transit worker assaults data for **major and non-major** events • Non-major transit worker assaults will be collected in a summarized format

When do changes take effect?

Full Reporters	Small Reporters
CY 2023	NTD report year 2023

Risk-Based Inspection (RBI) Programs

SSOAs must develop and begin to implement a risk-based inspection program for the RTAs they oversee by **October 21, 2024**

Risk-based inspection programs use qualitative and quantitative data analysis to inform inspection activities and prioritize inspections to address safety concerns and hazards associated with the highest levels of safety risk

Risk-based inspection programs must address the following:

1 Authority to Perform Inspections

2 Inspection Policies and Procedures

3 Data Sources and Collection

4 Inspection Prioritization

5 RBI Programs are Commensurate with Number, Size, and Complexity of the RFGPTS

6 SSOA Staffing, Training, and Qualifications

Risk-Based Inspection Program Requirements

FTA

» Issue a special directive requiring each SSOA to develop and implement risk-based inspection program

» Assess the capability of each SSOA to conduct compliant risk-based inspections

SSOAs

» Develop and implement a risk-based inspection program in accordance with 49 U.S.C. § 5329(k) and the Special Directive

» After implementing the approved program for 6 months, submit evidence of implementation to FTA

RTAs

» Coordinate with their SSOA on policies and procedures for inspection access and data collection; incorporate these into their Agency Safety Plan

» Share with SSOAs the data the RTA collects when identifying and evaluating safety risks

INFORMATION & RESOURCES

https://www.transit.dot.gov/RBI

FTA Safety Policy Activities

Public Transportation Agency Safety Plans (PTASP)	• Incorporates new requirements established through the Bipartisan Infrastructure Law.
National Public Transportation Safety Plan (NSP)	• Proposes additional performance measures, best practices, tools, technical assistance, voluntary standards, and other resources.
State Safety Oversight (SSO)	• Introduces changes to clarify State Safety Oversight Agencies' (SSOA) oversight responsibilities and authority to conduct inspections.
Public Transportation Safety Certification Training Program (PTSCTP)	• Amends training curriculum to reflect new requirements and training course information.
Transit Worker Fitness for Duty	• Asks questions about establishing minimum standards related to transit worker fitness for duty.
Rail Transit Roadway Worker Protection (RWP)	• Establishes minimum baseline standards and risk-based redundant protection requirements

Public Review and Comment - PTASP NPRM

Review the PTASP NPRM and submit comments:

- https://www.federalregister.gov/d/2023-08777
- Or visit federalregister.gov and search for Docket Number **FTA-2023-0007**

Tips For Submitting Effective Comments, published by Regulations.gov, offers tips to help the public submit comments that have an impact and help agency policy makers improve federal regulations.

Open for Comment Until **June 26, 2023**

National Public Transportation Safety Plan

The proposed revisions will:

Safety Performance Measures
- Identify 7 new safety performance measures for all transit providers subject to the PTASP regulation, doubling the required safety performance targets that PTASP-applicable transit agencies must set.

Safety Risk Reduction Programs
- Identify 8 measures required for safety risk reduction programs in transit agencies receiving Section 5307 funds and serving an urbanized area with a population of 200,000 or more.

Voluntary Minimum Safety Standards and Recommended Practices
- Include an updated listing of voluntary minimum safety performance standards for public transportation vehicles used in revenue operations

Open for Comment Until **July 31, 2023**

Scan to Read and Submit Comments
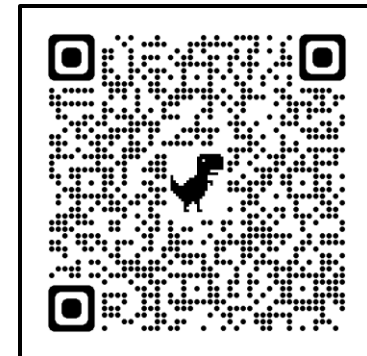
2023 FTA State Safety Oversight Agency/Rail Transit Agency Hybrid Workshop

Stay Tuned!

Target Date – Early-to-Mid November 2023

Questions

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