Rail Safety Committee and Commuter Rail Safety & Security Subcommittee

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APTA Rail Conference

6/29/2025

U.S. Department of Transportation
Federal Transit Administration

Agenda

- State of Rail Safety

- Rail Grade Crossing Safety Update

- Line Overruns

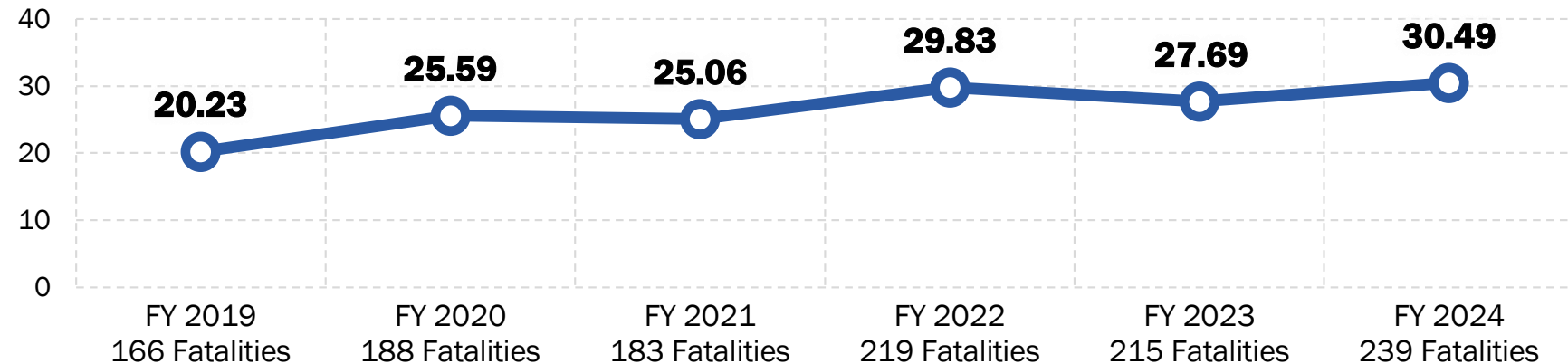- Rail Transit Roadway Worker Protection

- General Directive Analysis

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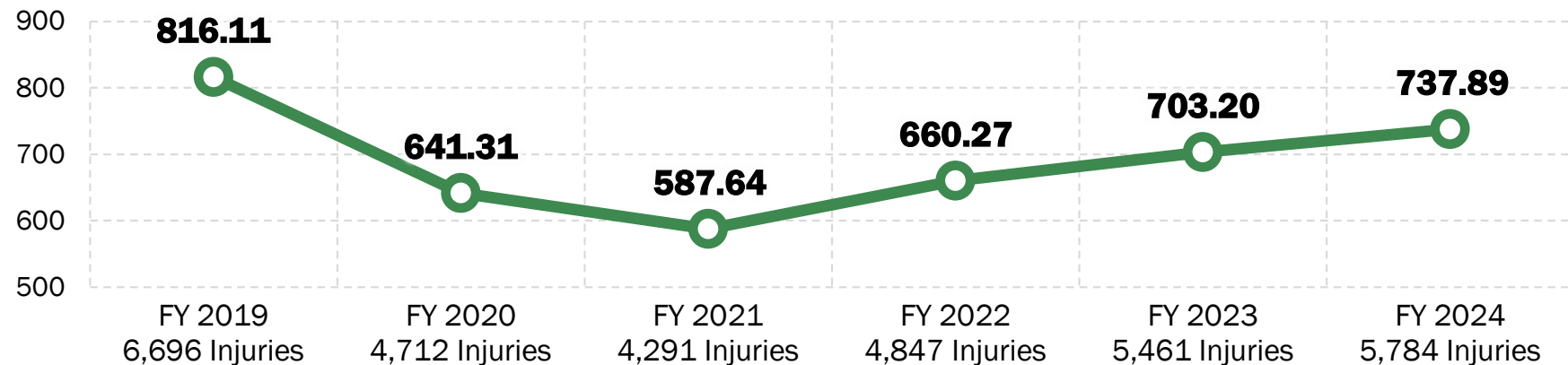# Rail Transit Safety Data Trends

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State of Rail Transit Safety – Annual Trends

Fatalities per 100 Million VRM

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Value	20.23	25.59	25.06	29.83	27.69	30.49
	166 Fatalities	188 Fatalities	183 Fatalities	219 Fatalities	215 Fatalities	239 Fatalities

Injuries per 100 Million VRM

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Value	816.11	641.31	587.64	660.27	703.20	737.89
	6,696 Injuries	4,712 Injuries	4,291 Injuries	4,847 Injuries	5,461 Injuries	5,784 Injuries

- **Source:** National Transit Database (NTD)
  FY2024 data are preliminary.

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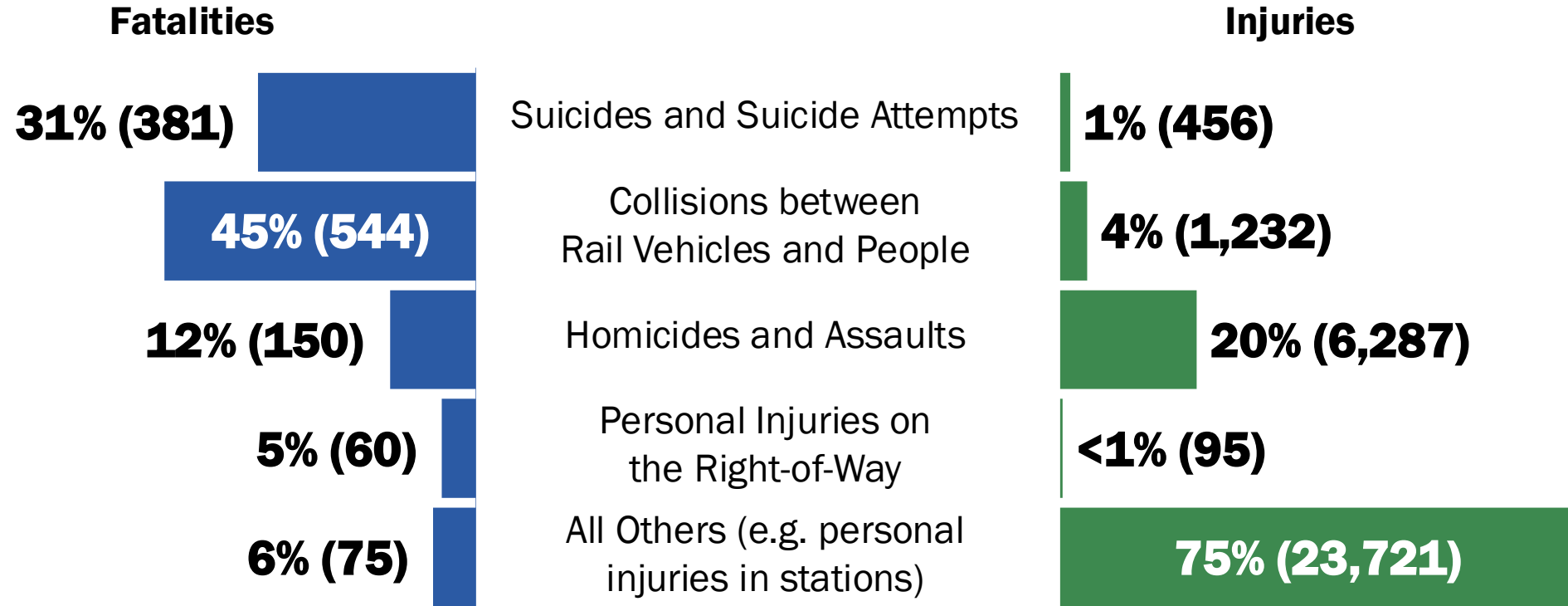**Federal Transit Administration**

Rail Fatality Breakdown by Quarter

Total fatalities are down 22 percent in Q1 FY25 than Q4 FY25

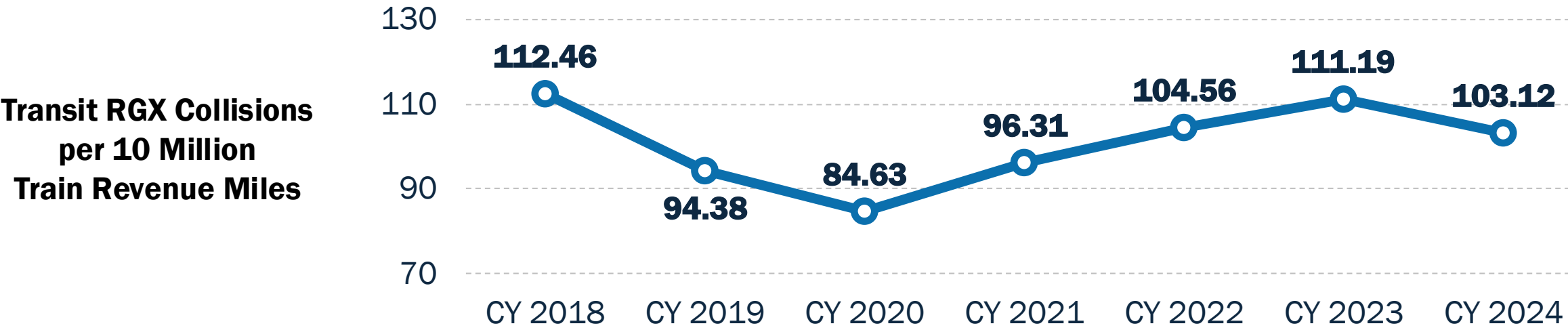| Quarter	2024 Q1	2024 Q2	2024 Q3	2024 Q4	2025 Q1
Rail Collision	53	54	49	36	37
Rail Homicide	1	7	10	9	5
Rail Other Events	2	4	5	9	3
Total	56	65	64	54	45

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Sources of Rail Transit Fatalities and Injuries

Rail Transit Fatalities and Injuries by Source, Oct 2018–Sep 2024

Fatalities

Injuries

Source	Fatalities	Injuries
Suicides and Suicide Attempts	31% (381)	1% (456)
Collisions between Rail Vehicles and People	45% (544)	4% (1,232)
Homicides and Assaults	12% (150)	20% (6,287)
Personal Injuries on the Right-of-Way	5% (60)	<1% (95)
All Others (e.g. personal injuries in stations)	6% (75)	75% (23,721)

- **Source:** National Transit Database (NTD)
  FY2024 data are preliminary.

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Transit RGX Collision Trends

Transit RGX Collisions per 10 Million Train Revenue Miles

Values shown on the line chart:
- CY 2018: 112.46
- CY 2019: 94.38
- CY 2020: 84.63
- CY 2021: 96.31
- CY 2022: 104.56
- CY 2023: 111.19
- CY 2024: 103.12

	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Collisions	733	620	458	522	607	655	635
Fatalities	16	15	12	17	19	16	18
Injuries	193	190	137	135	140	222	201

- **Source:** National Transit Database (NTD)
  CY 2024 data are preliminary.

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Purpose for Safety Advisory 24-2: The Data

Street-running rail vehicle collisions result in fatalities at a higher rate than other frequently reported collision types, across all modes, in National Transit Database (NTD) data.

Fatality Rate for Frequently-Reported Collision Types, Calendar Year (CY) 2015 - 2024

Collision Type	Fatalities per 100M VRM (Total fatalities)
Street-Running Rail-to-Person	7.30 (88)
Street-Running Rail-to-POV RGX	2.82 (34)
Heavy Rail Train-to-Person	1.52 (99)
Street-Running Rail-to-POV Non-RGX	0.25 (3)
Bus-to-Person	1.24 (342)
Bus-to-POV	1.95 (540)

Fatalities per 100 Million Vehicle Revenue Miles (100M VRM)
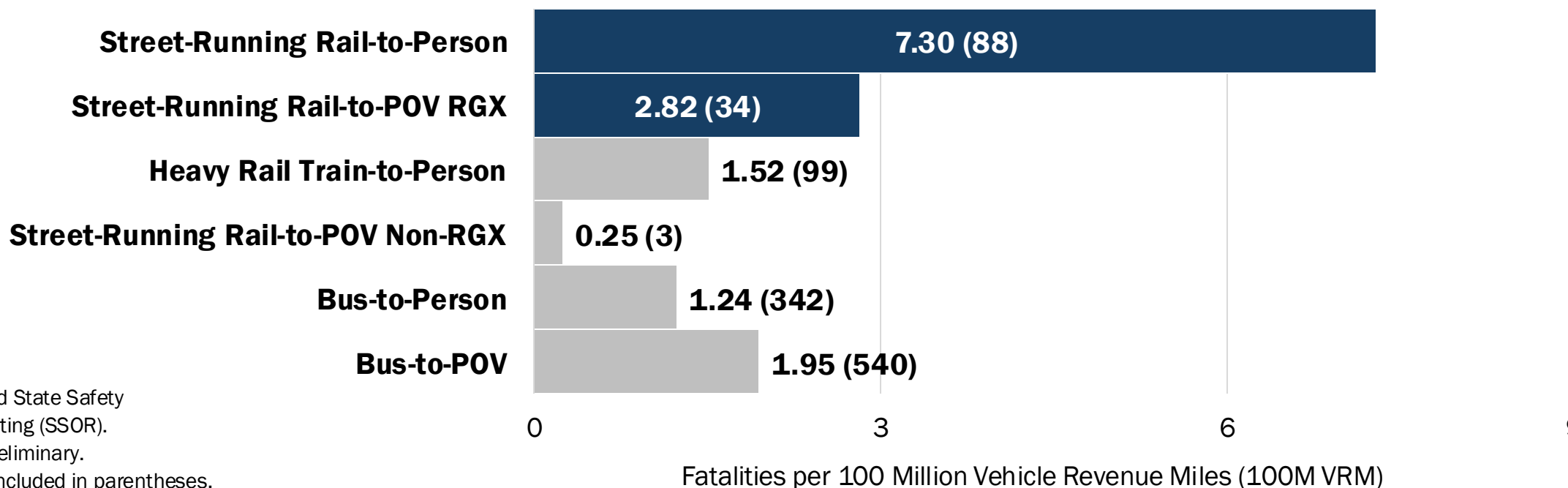
Source: NTD and State Safety Oversight Reporting (SSOR). 2024 data is preliminary. Total fatalities included in parentheses. Data as of 6/2/25.

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Line Overruns

Denver RTD (March 2023)

Utah Transit Authority (May 2025)

SEPTA (May 2025)

Source: AP

Source: UTA

Source: SEPTA

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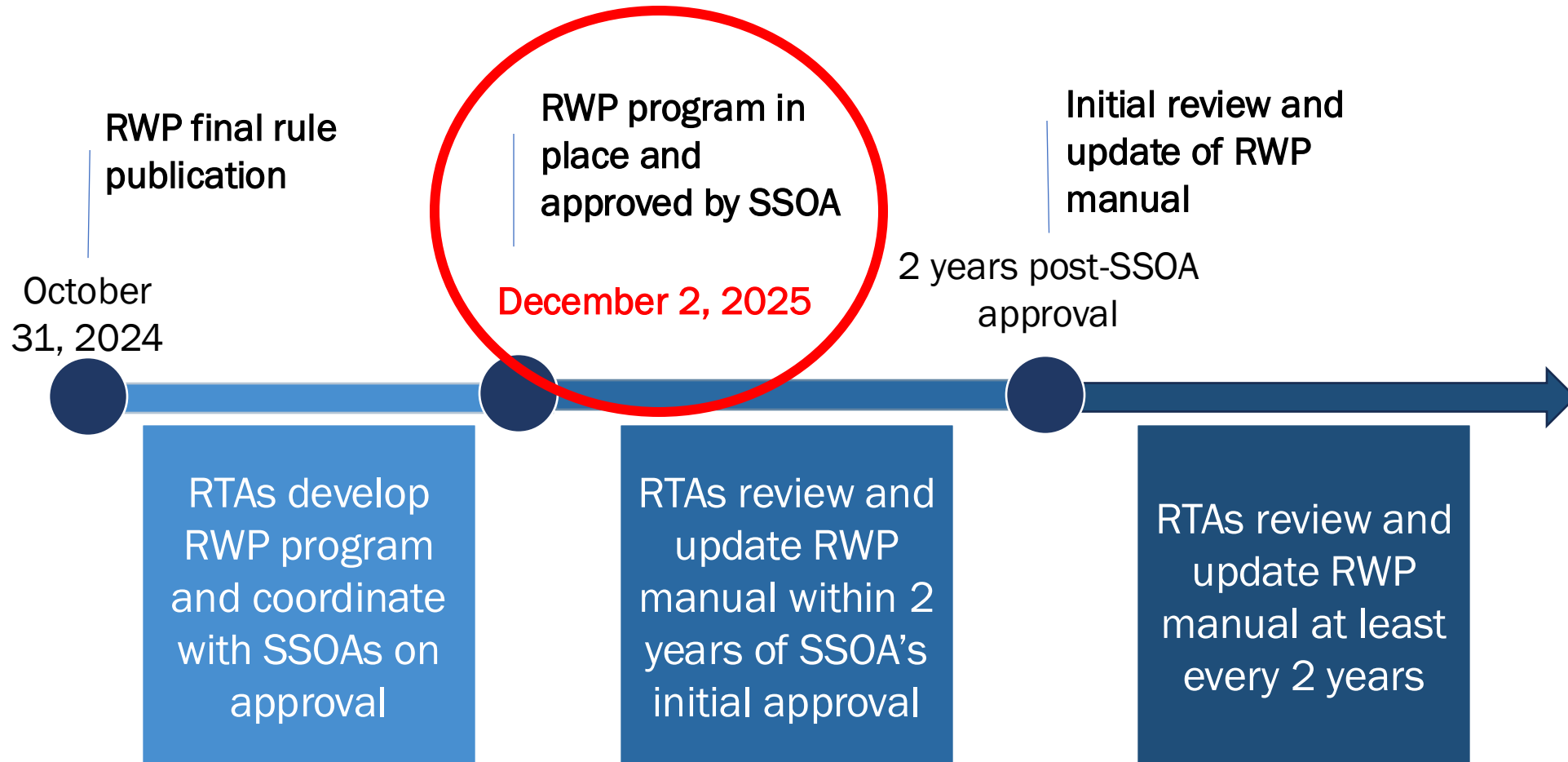
Rail Transit Roadway Worker Protection

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Key Deadlines

RWP final rule publication

October 31, 2024

RTAs develop RWP program and coordinate with SSOAs on approval

RWP program in place and approved by SSOA

December 2, 2025

RTAs review and update RWP manual within 2 years of SSOA's initial approval

Initial review and update of RWP manual

2 years post-SSOA approval

RTAs review and update RWP manual at least every 2 years

Ongoing: SSOAs review and approve RWP program elements, monitor implementation, and conduct annual audits

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Key RWP Requirements

The creation of an RWP manual and track access guide

Requirements for on-track safety and supervision

Job safety briefings

Good-faith safety challenges and reporting unsafe acts and conditions and near-misses

Development and implementation of risk-based redundant protections for workers

Establishment of RWP training and qualification and RWP compliance monitoring activities

For more information visit our website: https://www.transit.dot.gov/regulations-and-programs/safety/rail-transit-roadway-worker-protection

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General Directive Analysis Update

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Major Rail Transit Worker Assaults: FY 2019–24

Major Rail Transit Worker Assault Event Rate per 100M VRM
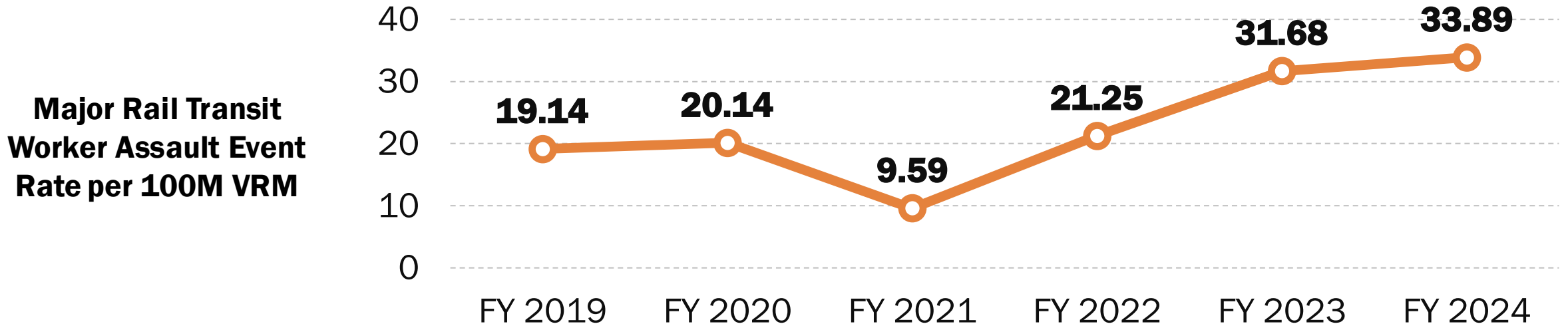
Raw Event, Fatality, and Injury Counts		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
	Major Assaults	157	148	70	156	246	266
	Fatalities	0	0	10	0	2	0
	Injuries	162	150	74	165	279	308

- **Source:** National Transit Database (NTD)
  FY 2024 data are preliminary.

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Background

General Directive 24-1 required agencies subject to the Public Transportation Agency Safety Plan (PTASP) regulation to:

1 Conduct A Safety Risk Assessment

2 Identify Safety Risk Mitigations
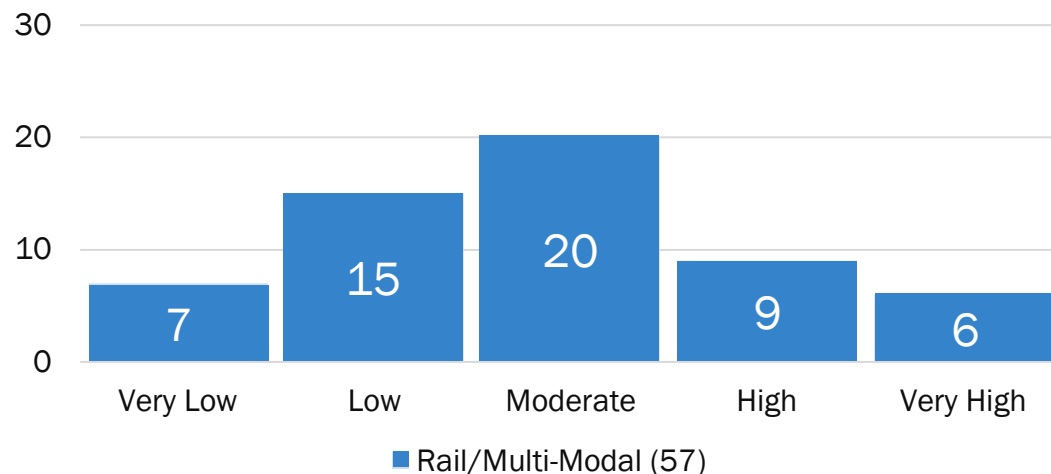
3 Provide Information to FTA Within 90 Days

For more information go to: General Directive 24-1: Required Actions Regarding Assaults on Transit Workers | FTA

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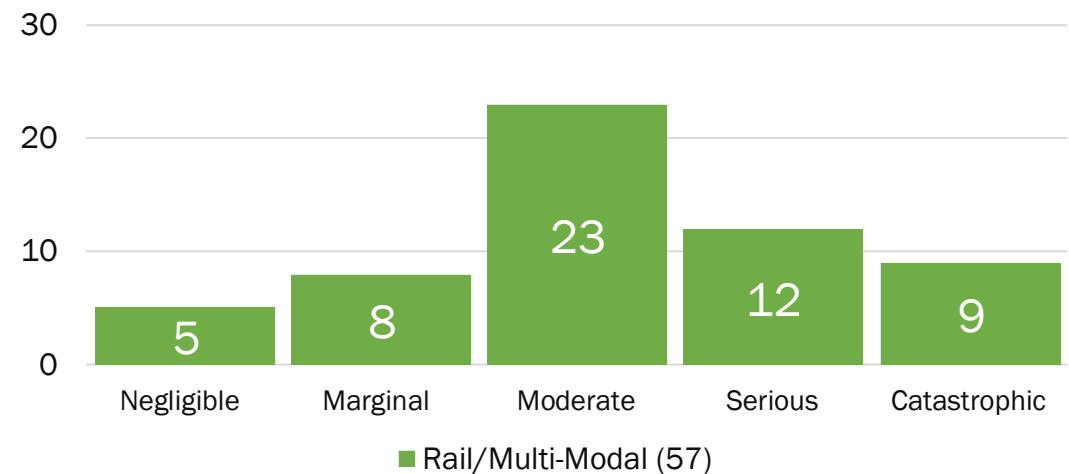# Rail/Multi-Modal Agencies and the Overall Risk Rating

How are rail/multi-modal transit agencies rating the risk of the potential consequences of assaults on transit workers?

- The General Directive required transit agencies to provide an overall risk rating (likelihood and severity) for the potential consequences of assaults on transit workers. The charts below illustrate the overall distribution of the likelihood and severity risk ratings submitted by rail/multi-modal agencies.

Rail/Multi-Modal Overall Risk Rating (Likelihood)

Category	Value
Very Low	7
Low	15
Moderate	20
High	9
Very High	6

Rail/Multi-Modal (57)

Rail/Multi-Modal Overall Risk Rating (Severity)

Category	Value
Negligible	5
Marginal	8
Moderate	23
Serious	12
Catastrophic	9

Rail/Multi-Modal (57)

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Mitigation Status

#1 De-Escalation Training

#2 Video/Audio Surveillance

#3 Operating Policies and Procedures

#4 Signage Informing Riders of Surveillance/Penalties

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Mitigation Effectiveness Evaluation – Rail/Multi-modal Agencies

69% found **Video/Audio Surveillance** to be effective

68% found **Automatic Vehicle Location** to be effective

66% found **Patrol Strategies** to be effective

53% found **Operator Area Protective Barriers** to be effective

Safety Management Systems: Lessons Learned from GD 24-1

Safety Risk Management

- Identify hazards
- Assess risk
- Mitigate risk

"What's wrong?"
"How bad is it?"
"How will we fix it?"

Safety Assurance

- Monitor mitigations
- Measure performance

"Are our fixes working?"
"Are we meeting our safety objectives?"

Lessons Learned from GD 24-1

Agencies were able to leverage their **Safety Risk Management** processes

- *Only 10% of agencies had conducted safety risk assessments on the topic in 12 months prior to GD 24-1*

Safety Assurance processes proved more challenging for the industry

- *While agencies were generally able to assess safety risk, monitoring the effectiveness of mitigations proved more difficult*

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Thank you!

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