

CTAA Expo

FTA Safety Updates - Bus Safety Data Trends, Transit Worker
Assault Prevention and the Road Ahead
May 22, 2023



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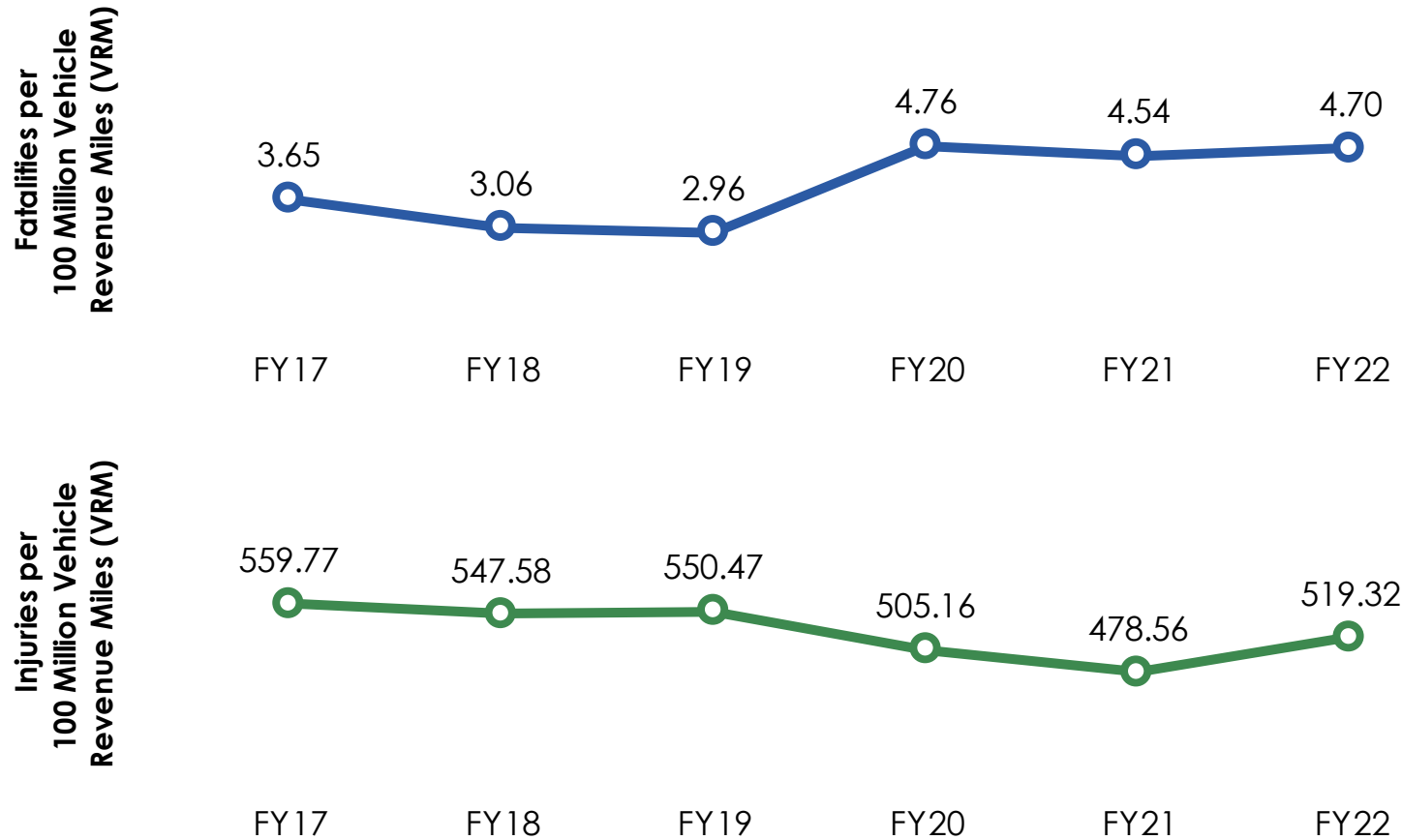
U.S. Department of Transportation
Federal Transit Administration

Presentation Overview

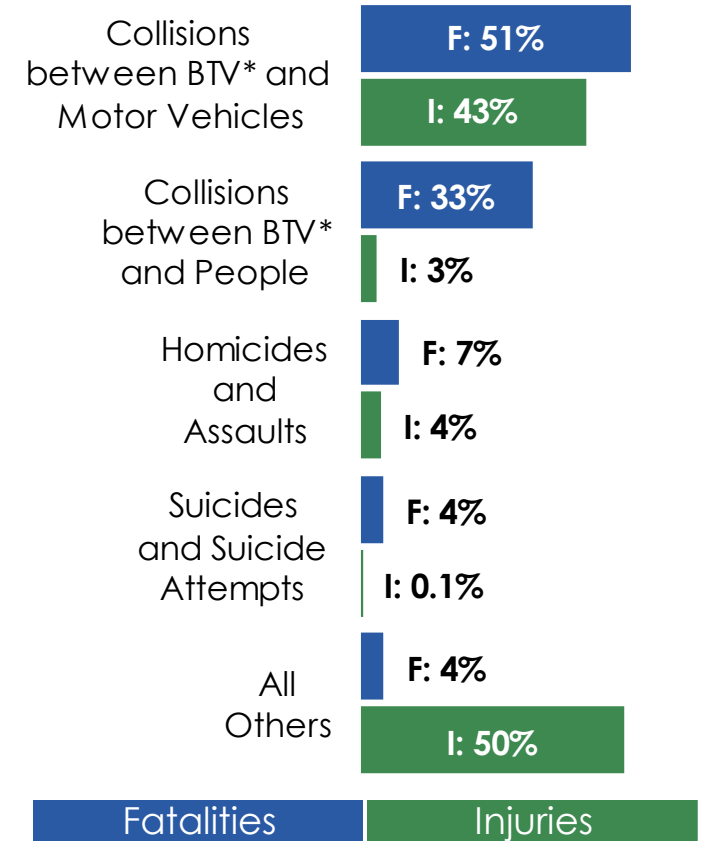
- State of Bus Transit Safety & Bus-to-Person Collisions
- Protecting Transit Workers from Assaults
 - Responses to FTA's Special Directive - Required Actions Regarding Transit Worker Assault
- Expanded Assault Reporting - [NTD Safety and Security Reporting Changes and Clarifications](#)
- Bus Operator Compartment Redesign
- Cybersecurity
- FTA Safety Policy Activities
- Safety Committees & Role in Safety Management Systems



State of Bus Transit Safety



Sources of Bus Fatalities



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

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

Bus-to-Person Collisions Overview



Description

- Bus-to-Person Collisions focuses on safety events involving bus collisions with people at stations, bus stops, intersections, and publicly accessible roadways
- This analysis defines “person” as pedestrians, bicyclists, and people utilizing micromobility



Challenges

- Bus design features can obscure the field of view
- Streetscape features can obscure the view of operators
- Operators must have situational awareness of both exterior and interior surroundings



Applicable Legal Framework

- The Bipartisan Infrastructure Law amended Section 5329 of title 49, United States Code by adding that public transportation agencies take into consideration “innovations in driver assistance technologies and driver protection infrastructure, where appropriate, and a reduction in visibility impairments that contribute to pedestrian fatalities”



Bus-to-Person Collisions NTD Data

Bus-to-Person Collisions Data

2008 – 2021

7,298

Bus-to-Person Collisions

7,329

Injuries

Accounts for:

- 2% of all transit injuries
- 3% of bus transit injuries

537

Fatalities

Accounts for:

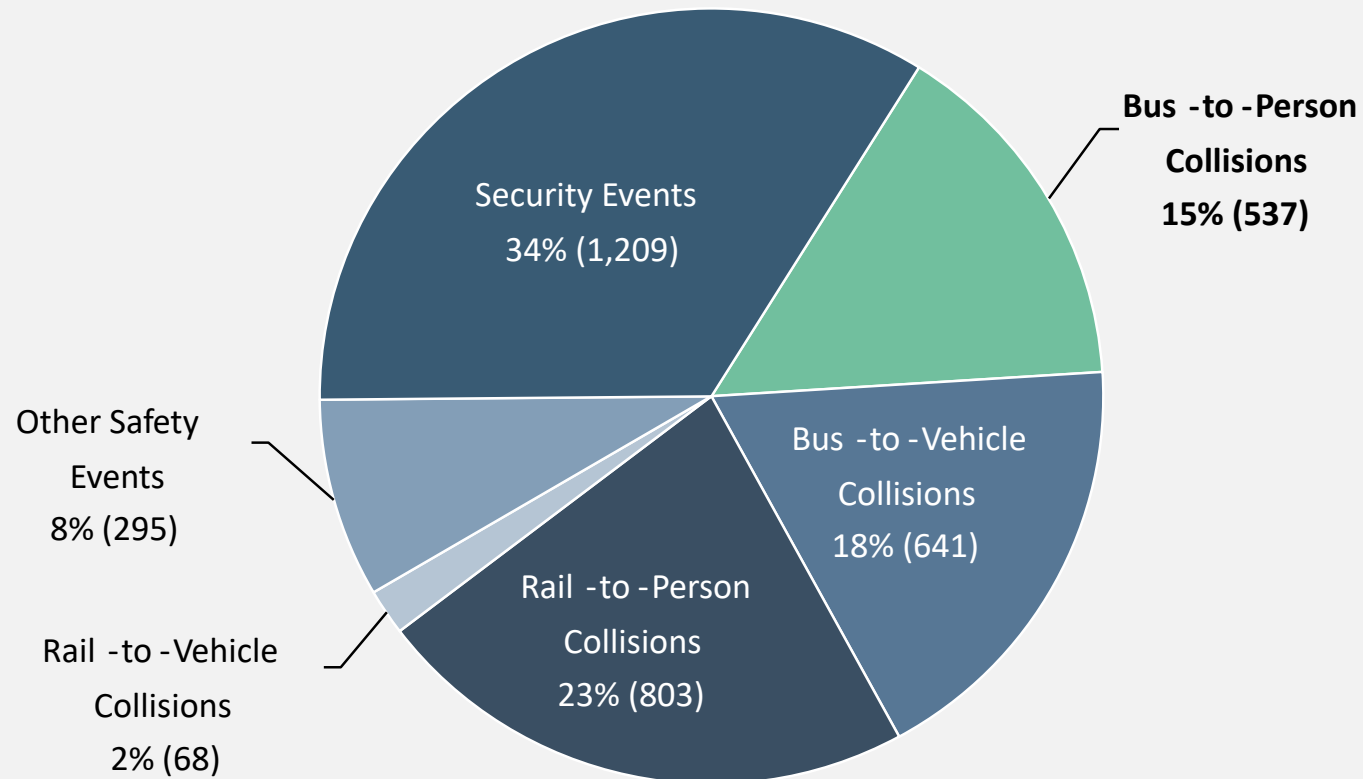
- 15% of all transit fatalities
- 37% of all bus transit fatalities

Source: National Transit Database (NTD), 2008-2021



Transit Fatality Data

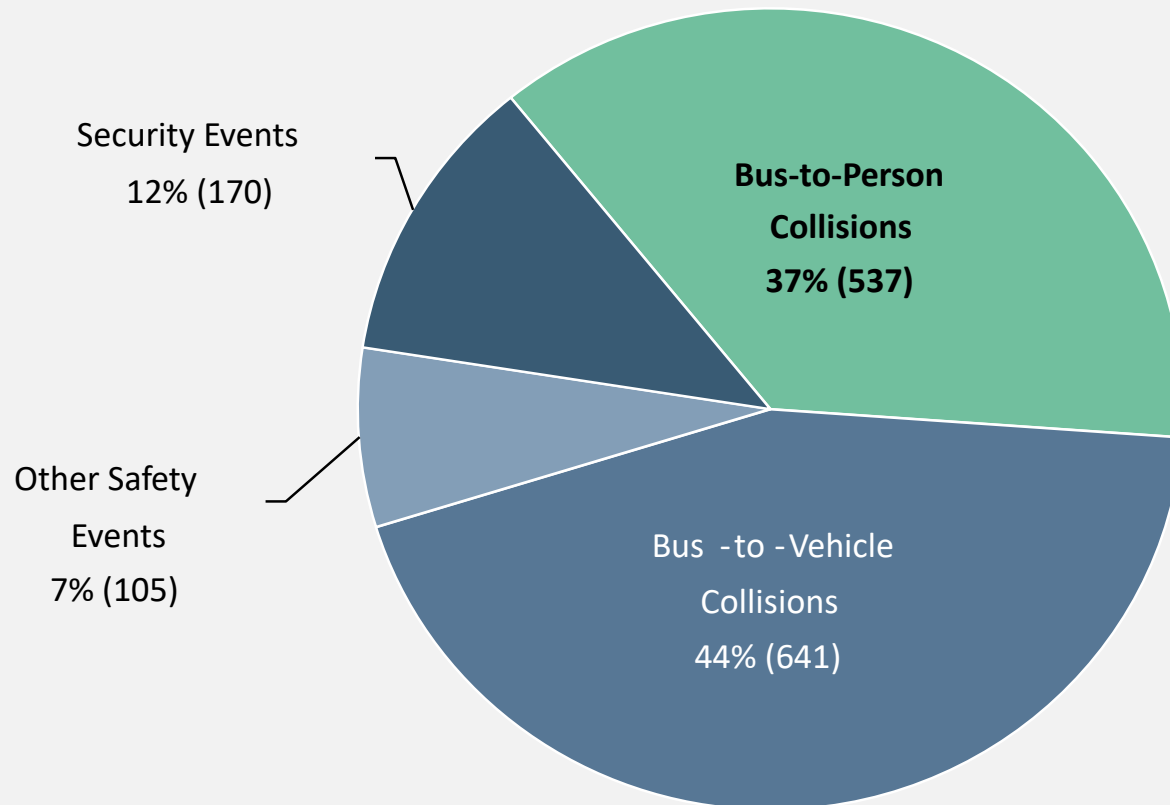
Transit Fatalities Data, 2008 – 2021



Source: National Transit Database (NTD), 2008-2021

Bus Transit Fatality NTD Data

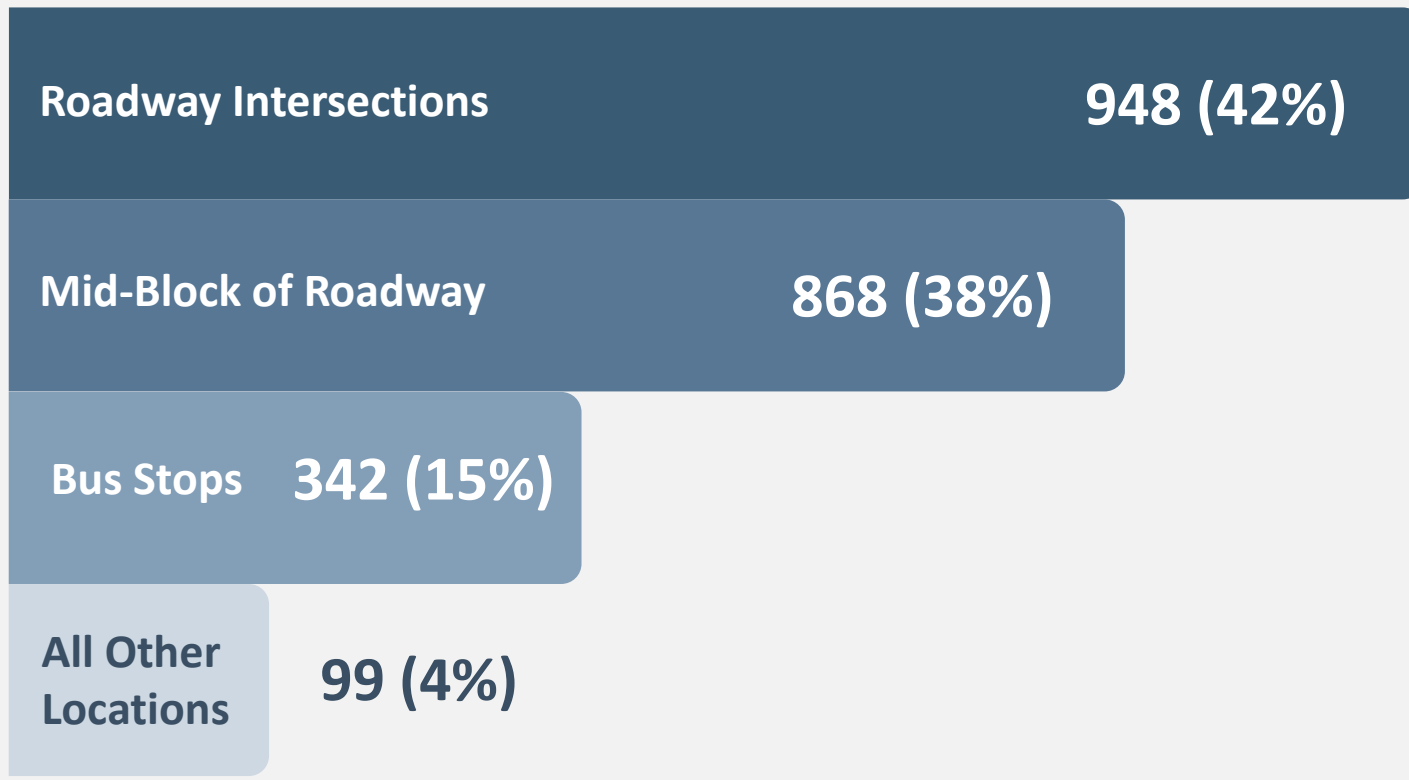
Bus Transit Fatalities Data, 2008 – 2021



Source: National Transit Database (NTD), 2008-2021

Bus-to-Person Collisions by Location

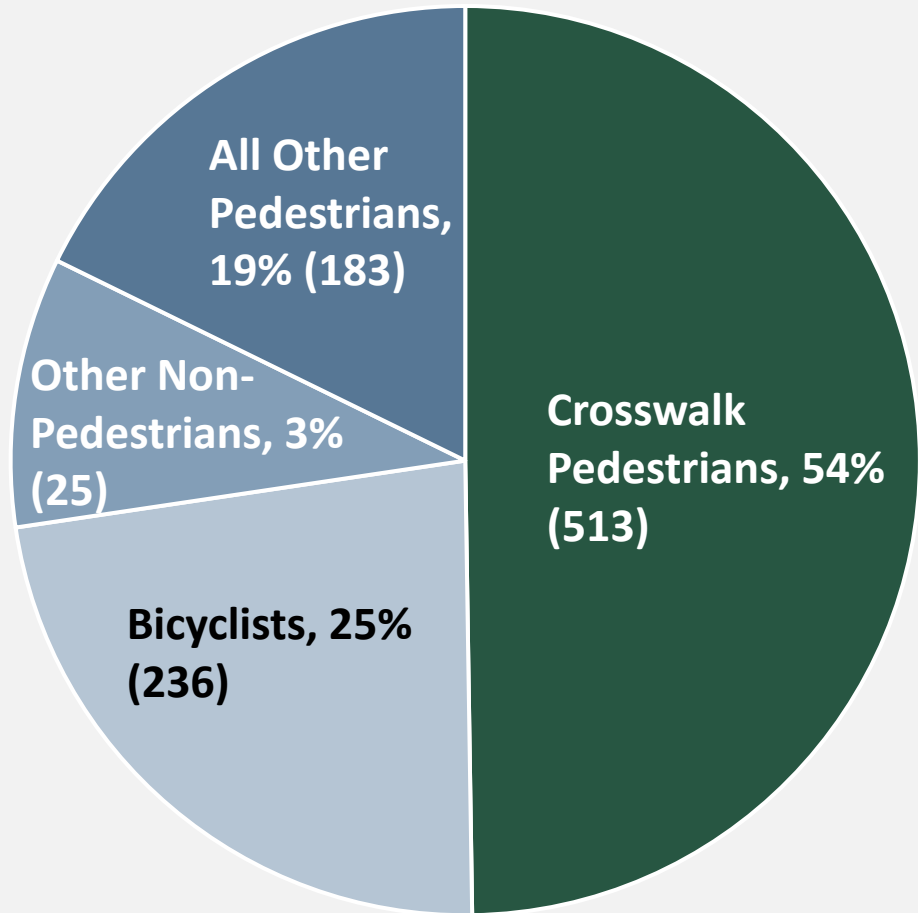
Bus-to-Person Collisions by Location 2017 – 2021



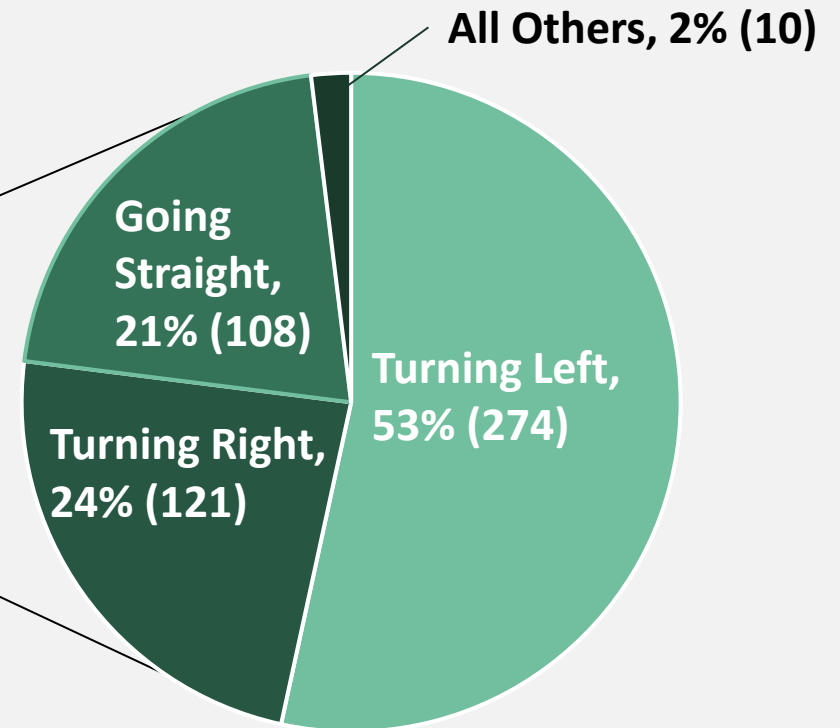
Source: NTD, 2017-2021 (new location field added in 2017)

Roadway Intersection Collisions

Intersection Bus-to-Person Collision Fatalities and Injuries (948) by Pedestrian Type



Crosswalk Pedestrian Fatalities and Injuries from Intersection Collisions

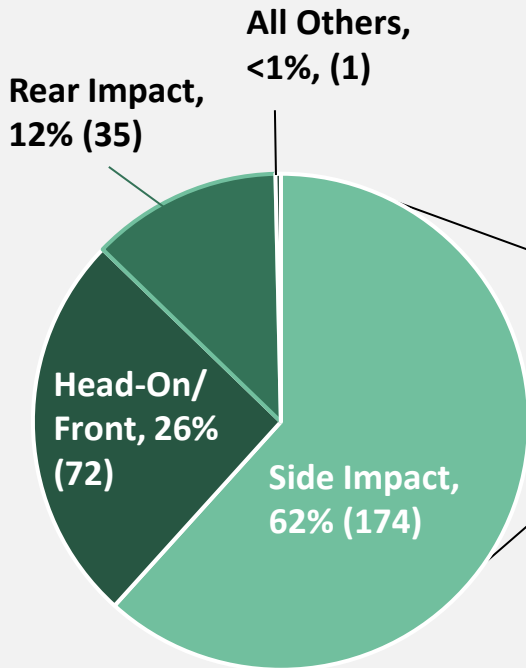


Source: NTD, 2017-2021

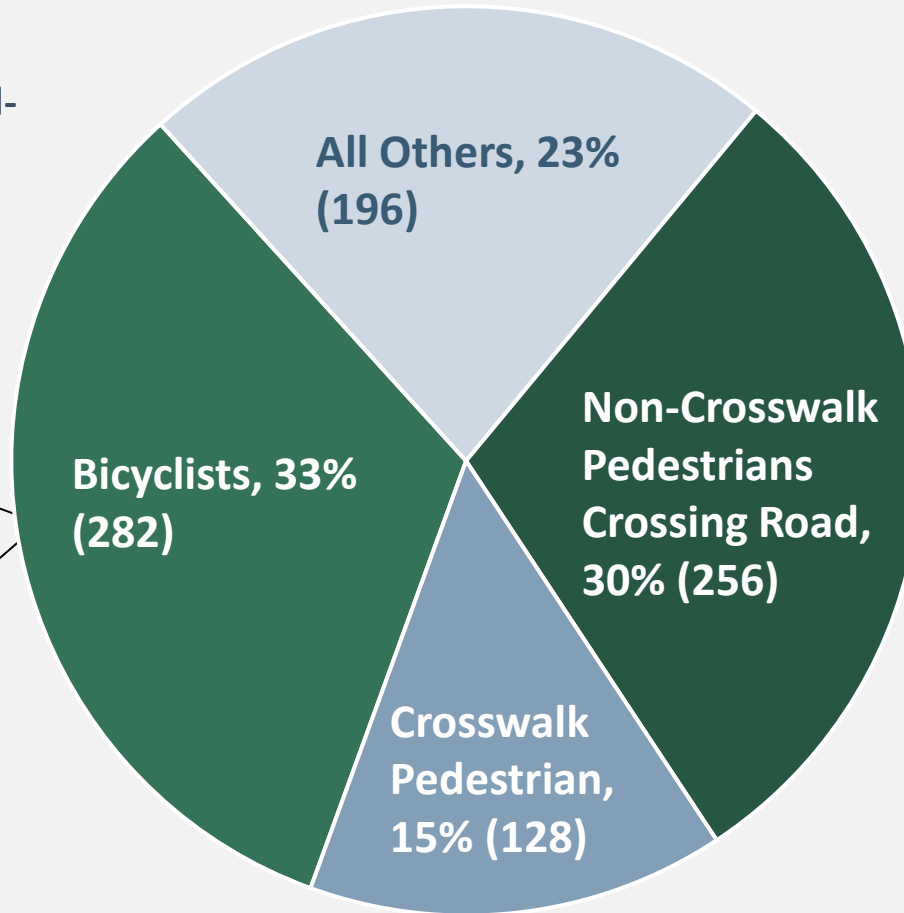
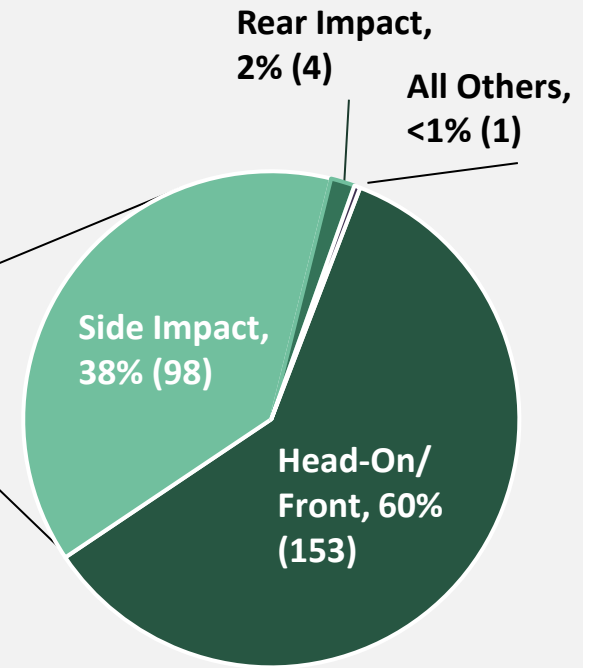
Mid-Block of Roadway Collisions

Mid-Block Bus-to-Person Collision
Fatalities and Injuries (868)

Bicyclist Fatalities and Injuries from Mid-Block Collisions with Buses



Non-Crosswalk Pedestrian Fatalities and Injuries from Mid-Block Collisions



Source: NTD, 2017-2021

Risk Analysis and Mitigation Next Steps

Risk Analysis

- FTA identified the hazards and consequences associated with bus-to-person collisions
- FTA assessed the likelihood and severity of bus-to-person collisions and assigned an overall risk rating of **high likelihood** and **serious severity** to the safety topic

Mitigation Implementation Next Steps

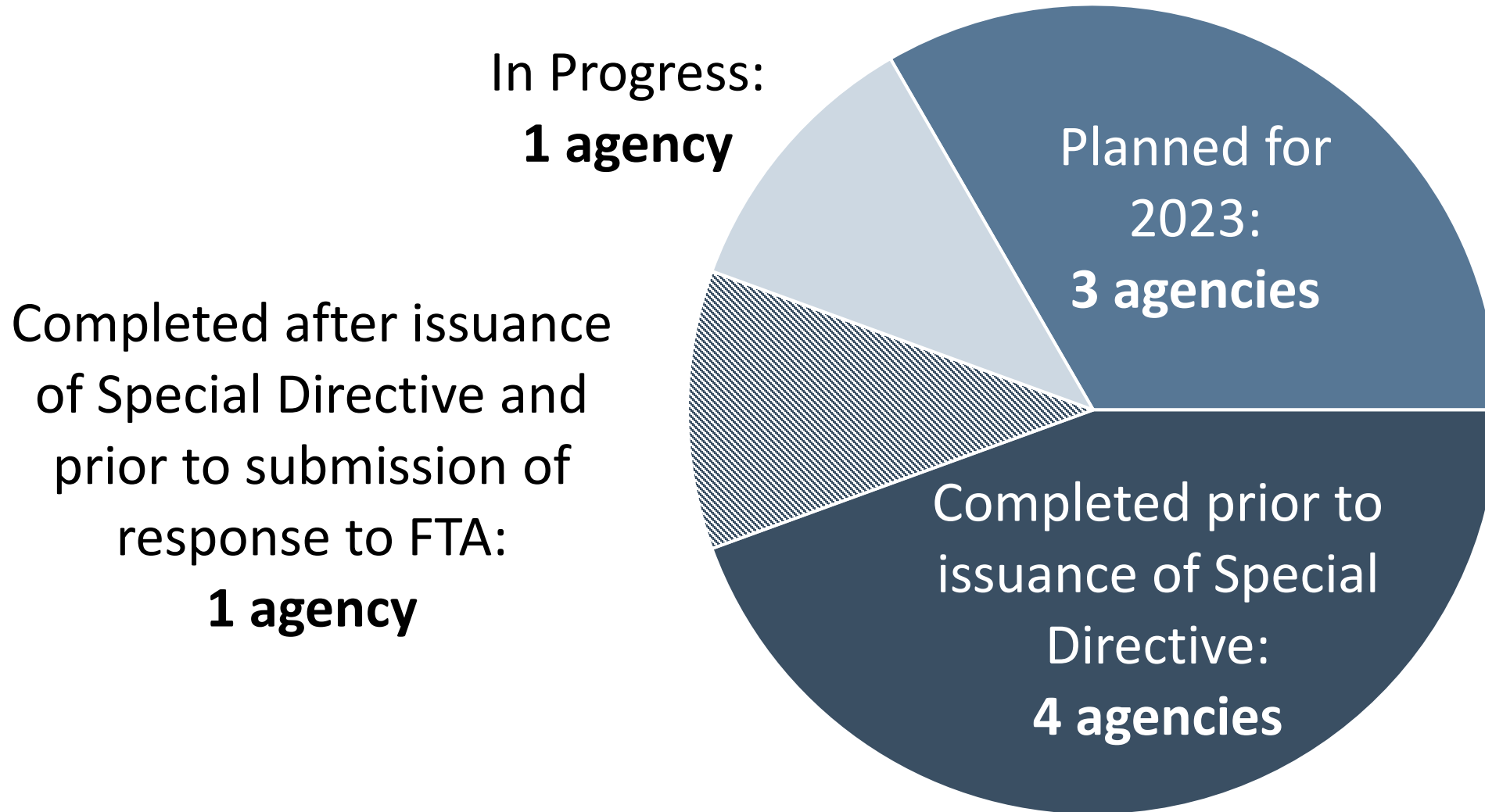
- FTA is currently developing mitigation strategies for Bus-to-Person Collisions
- FTA will begin implementing mitigations in 2023
- FTA plans use a variety of tools and strategies over the next several years and will monitor performance via safety data

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



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.



Expanded Assault Reporting

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

Before NTD Updates	After NTD Updates
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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

Bus Operator Compartment (BCP) Program

In October 2020, FTA awarded \$1.6M in competitive grant funds to:

- International Transportation Learning Center (ITLC) to redesign a transit bus compartment to improve safety for operators. FTA award was \$1M.
- New Orleans Regional Transit Authority (NORTA) to study the addition of shields and barriers on its bus fleet to protect bus operators. FTA award was \$.6M.

Final report on BCP Phase 1 by ITLC is expected by June, 2023; and NORTA by August, 2023.

FTA is exploring options for the award of BCP Phase 2 with a key focus on increasing bus operator safety from assaults.



Cybersecurity Review Area for FTA's Triennial Review

- In Fiscal Year (FY) 2022, FTA added the Cybersecurity Section as a review area to the Triennial Review Contractors Manual.
- Review is to ensure that recipients certified in the Transit Award Management System (TrAMS) develop, maintain and execute a written plan for identifying and reducing Cybersecurity risks.



Eligible Cybersecurity Expenses

While cybersecurity costs are not directly addressed in FTA's authorizing legislation, they are allowable under various FTA programs in areas such as:

- **Operating Assistance**
- **Crime Prevention and Security Projects**
- **State of Good Repair**

Any costs associated with an award, including cybersecurity costs must be:

- Allowable, Reasonable, and Allocable

Applicability of the Cost Principles

- Uniform Guidance under 2 CFR part 200 Subpart E Cost Principles General Provisions
- Subawards that are contracts are subject to the FAR – Federal Acquisition Regulations Part 31 – Contract Cost Principles and Procedures

Cybersecurity Assessment Tool for Transit (CATT)



FTA published an open-source PDF based CATT tool on February 10, 2023, [Tool](#)

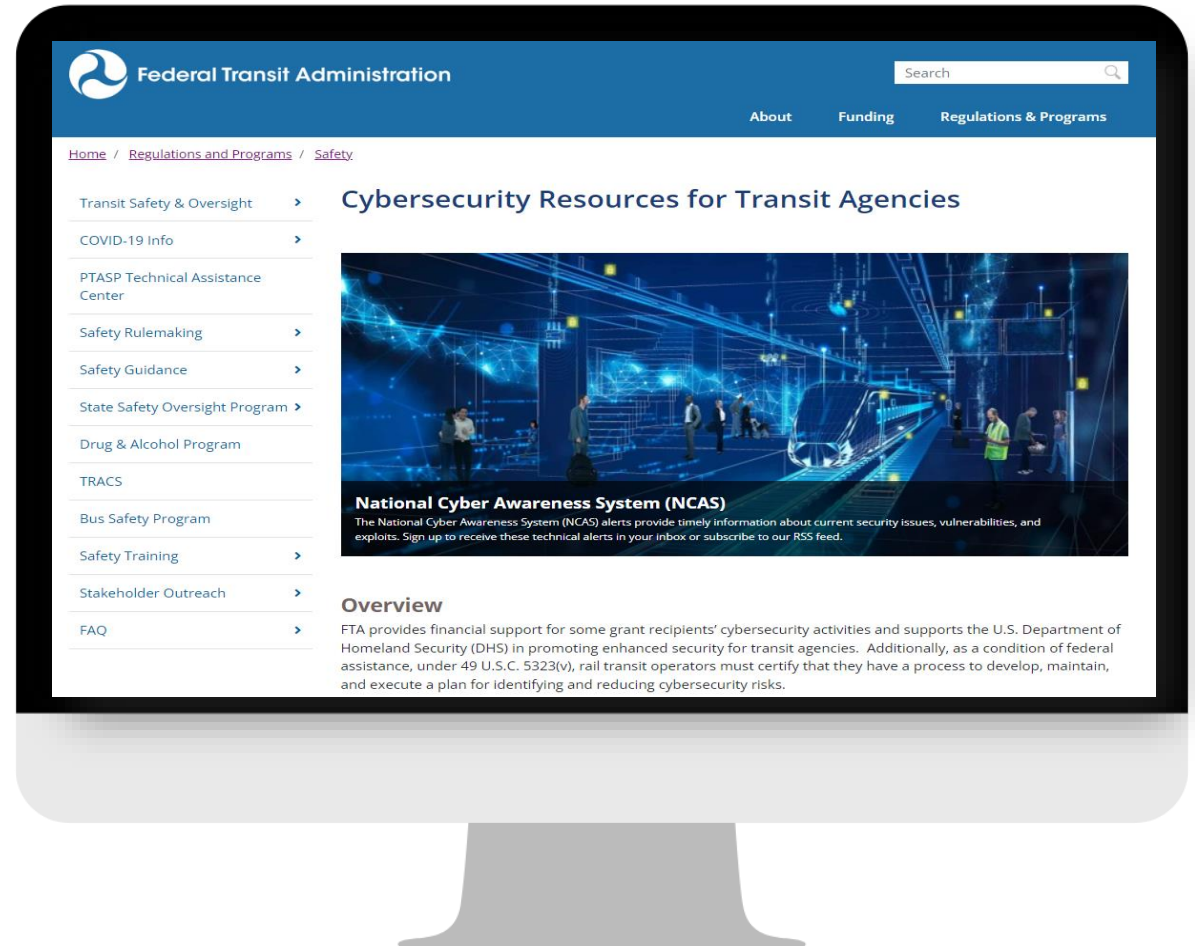
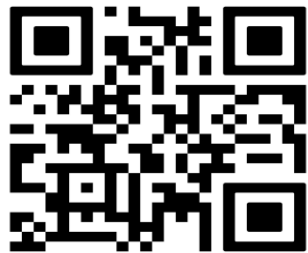
- Assists small and mid-sized transit agencies in self-assessing their cybersecurity preparedness

CATT has three primary components

- Data collection form
- Resulting report produced given data input from transit agency
- Resource guide on how to begin practices

FTA's Cybersecurity Resources

<https://bit.ly/3AQQWqe>



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



Large Urbanized Area Providers

- Safety Committee
- Safety risk reduction program
- Safety Performance Targets for safety risk reduction program
- Safety training for maintenance employees

Small Urbanized Area Providers

- Cooperation with frontline transit worker representatives on Agency Safety Plan development

Proposed Changes to PTASP

Rail Transit Agencies

- Clarification of PTASP applicability
- Policies and procedures regarding State Safety Oversight Agency risk-based inspection
- Any policies and procedures for Roadway Worker Protection the agency has issued

All Transit Agencies

- New and updated definitions
- Clarification regarding PTASP certification
- Transit worker assaults, near-misses, unsafe acts and conditions in an employee safety reporting program
- Infectious disease guidance from CDC or a State health authority
- Continuous Improvement Extended to Small Public Transportation Providers
- De-escalation training



Public Review and Comment - PTASP NPRM

Review the PTASP NPRM and submit comments:

- <https://www.federalregister.gov/d/2023-08777>
- Or visit [federalregister.gov](https://www.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.



What BIL Says About Safety Committees

Agencies serving an urbanized area with a population of *fewer than 200,000 must:*

- Develop their ASP in cooperation with frontline employee representatives

Agencies receiving Section 5307 funding and serving an urbanized area with a population of *200,000 or more must:*

- Establish a Safety Committee compliant with 49 U.S.C. Section 5329(d)
 - Safety Committees must consist of an **equal** number of frontline employee representatives and management representatives
- Ensure their ASP is compliant with new PTASP requirements



Safety Committees & Role in SMS

Implement and Support an Agency's Safety Management System

Identify and recommend risk-based mitigations or strategies necessary to reduce the likelihood and severity of consequences identified through the agency's safety risk assessment

Identify mitigations or strategies that may be ineffective, inappropriate, or were not implemented as intended

Identify safety deficiencies for the purposes of continuous improvement

Establishing safety performance targets for the risk reduction program

Review and approve the Agency Safety Plan



Questions

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