

Roadway Safety Presentation MassDOT Board Meeting

September 2023

336 people were killed on Massachusetts roadways in 2019

434 people were killed on Massachusetts roadways in 2022

In Massachusetts, 98 more people were killed in 2022 than 2019

(a 29% increase)



*Nationally, fatalities increased 28% in that same time frame
(but slightly decreased 2021 to 2022)*

Pedestrian deaths in Massachusetts hit an all-time high in 2022

98 people



Motorcyclist fatalities and serious injuries increased during the pandemic, reaching 76 deaths in 2021, then coming down to 56 deaths in 2022



Based on early reporting:

**Speeding, distraction, impairment, and unbelted deaths
all rose during the pandemic**

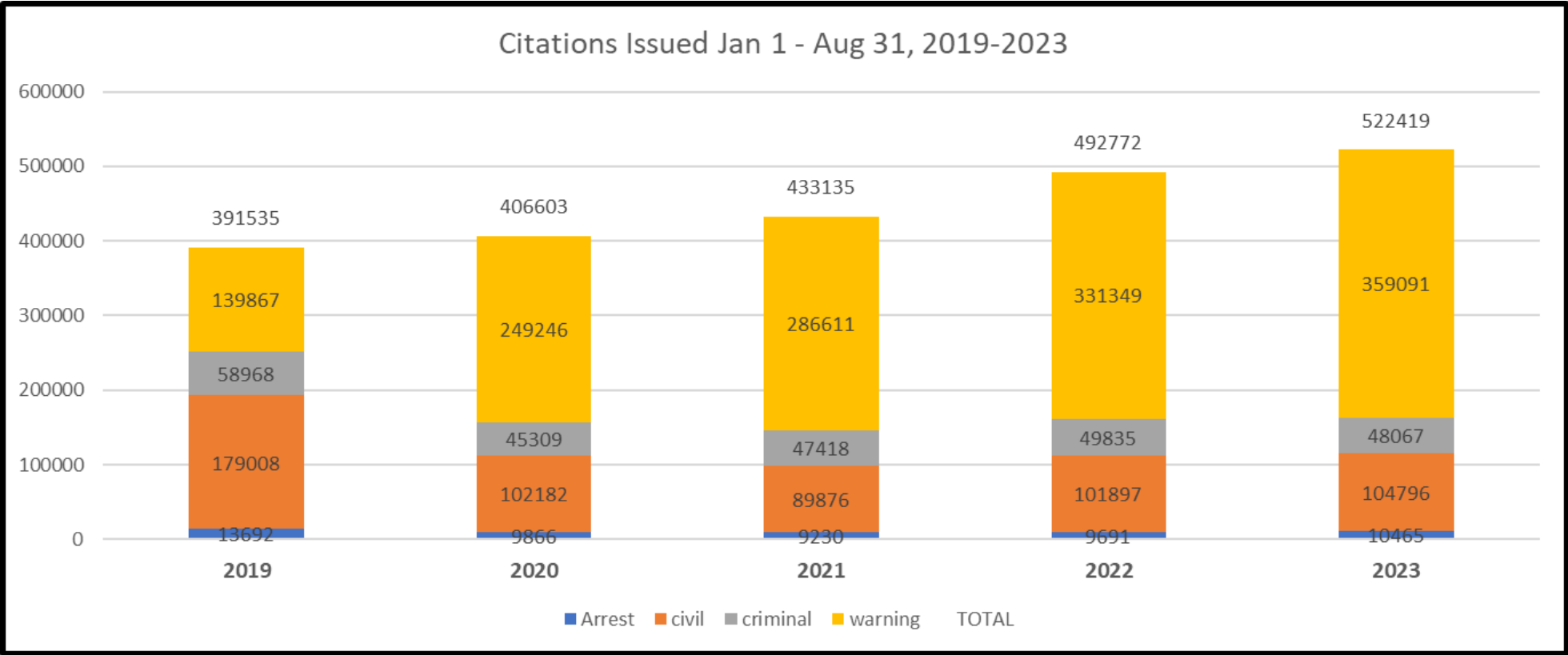


Some better news...

In 2023, both fatal and serious injury crashes are projected below 2019

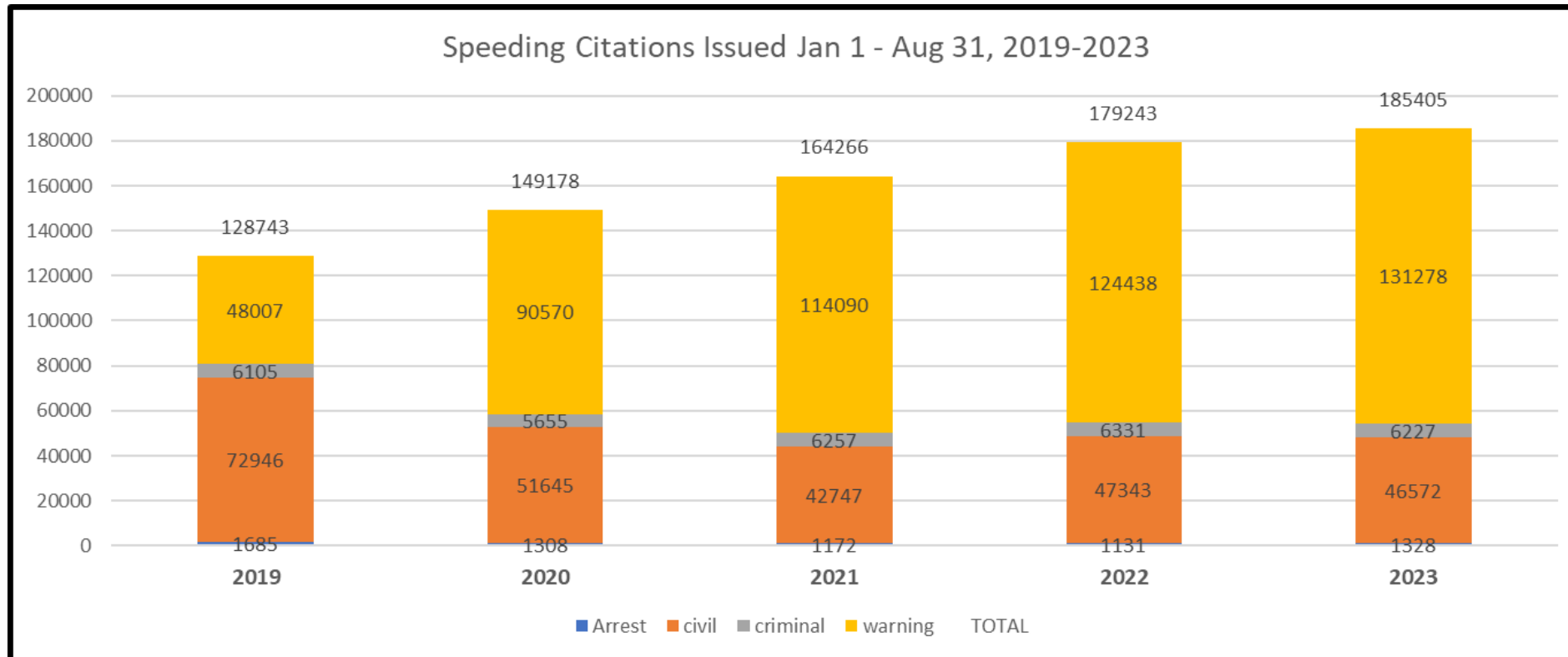
Safety Enforcement Data

- Speeding, failure to stop, and expired inspection stickers are the top three types of violations
- Citations have been increasing since the start of the pandemic and **2023 is trending even higher**
- **Warnings now make up two-thirds of all citations**, up from **less than half pre-pandemic**



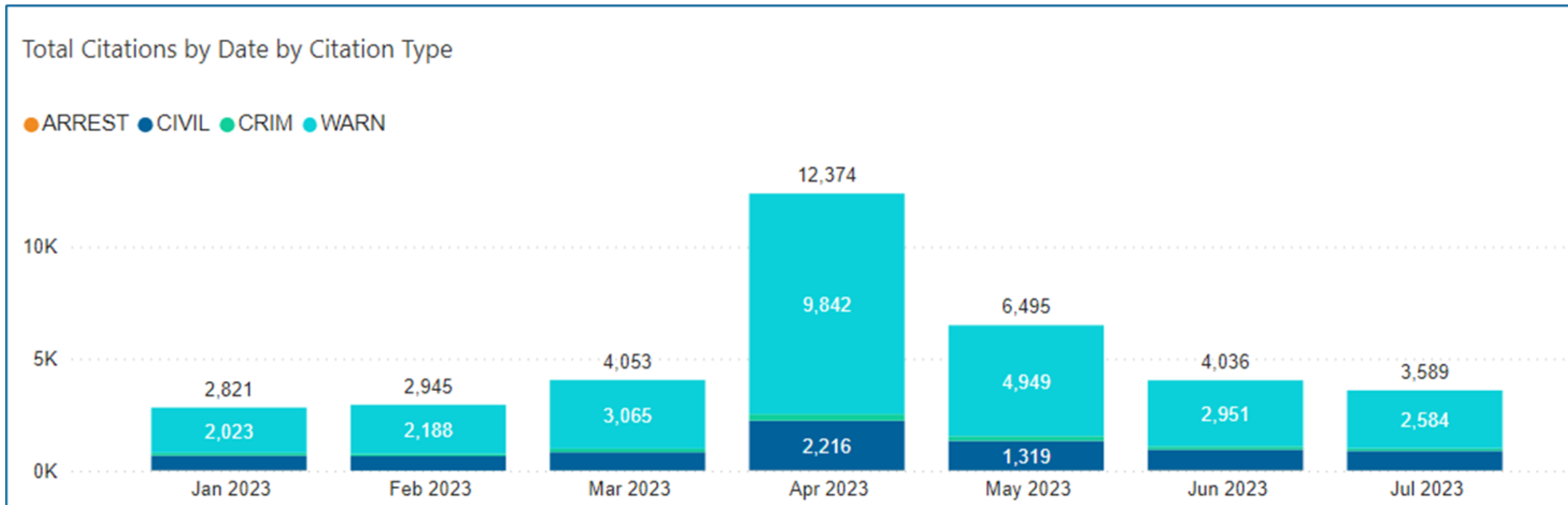
Speed Citation Data

- **Speeding violations have continuously increased since 2019**, up 44% from 2019 to now
- Pre-pandemic, 38% of citations were warnings
- Post-pandemic, 71% of citations are warnings



Distracted Driving / Hands Free Law

- **36,313** Distracted Driving violations issued January – July 2023
- April is National Distracted Driving Awareness Month



**HANDS-FREE
WHILE DRIVING
IT'S THE LAW.**



Current Roadway Enforcement Tools

Melanie's Law

- Massachusetts is one of strictest states in the country for drunk driving
- Any offender who has been convicted two or more times (lifetime lookback) for **Operating Under the Influence** (OUI) is required to have an Ignition Interlock Device installed in their vehicle

Hands-Free Law

- Allows law enforcement to stop and issue citations to motorists observed using mobile electronic devices

Vulnerable Road User (VRU) Law

- Expanded definition for a VRU
- Set a 4-foot passing distance from VRUs
- Changes crash reporting for incidents involving VRUs

Work Zone Safety

- Enables variable speed limits in work zones and increases penalties for motorists who strike roadway workers

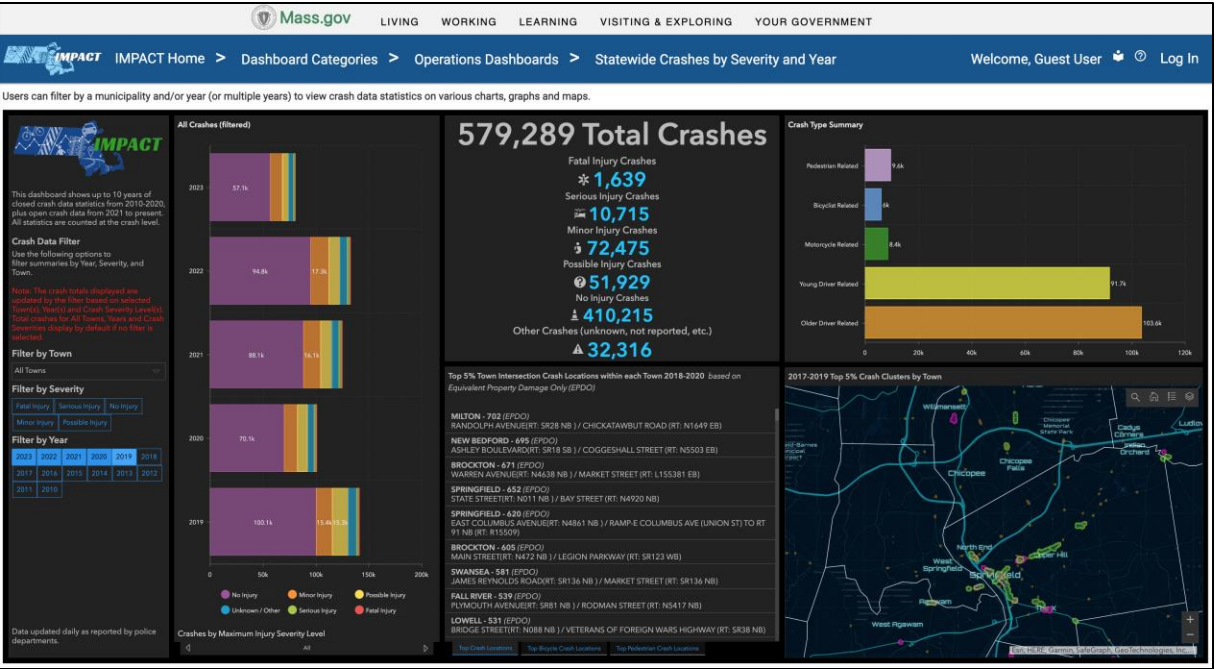
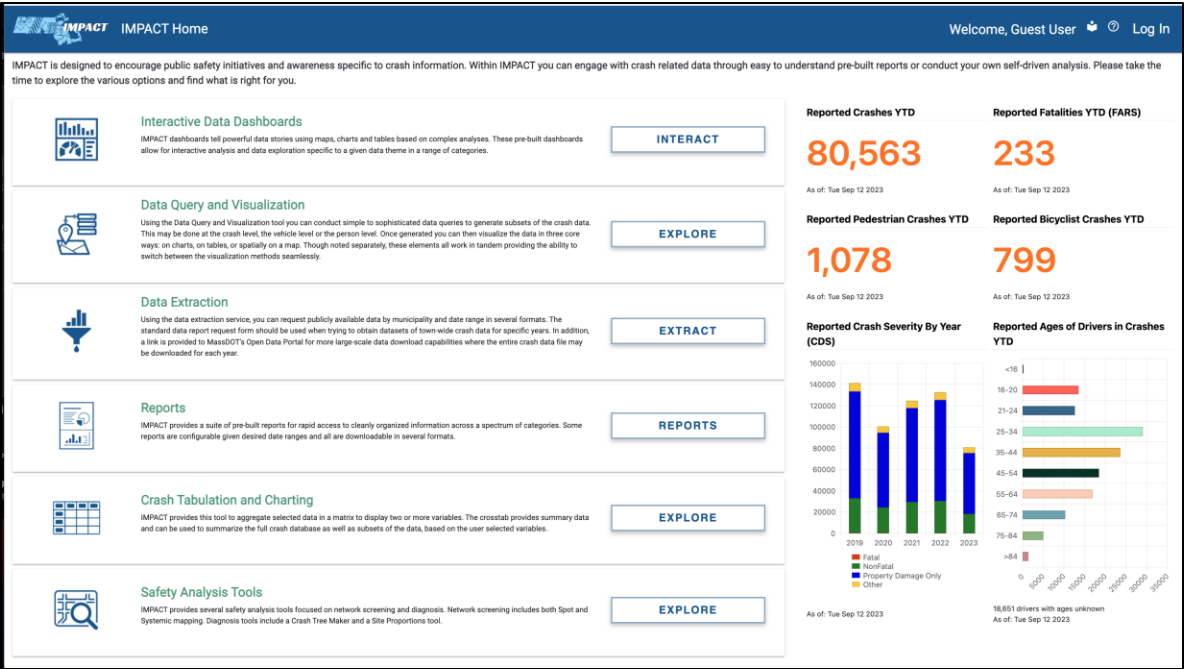
Required classes and programs to reinstate a driver's license

- National Safety Council / Massachusetts driver retraining program
- State Courts Against Road Rage (SCARR)
- Driver attitudinal retraining
- Drug or alcohol counseling and/or education program

Foundational Steps Taken (1 of 2)

Transparent & Public-Facing Data

- The **IMPACT Crash Data Portal** has over 60,000 users
- Merit Rating Board is building a Citation Data Portal
- Changes to the crash form will allow for better analysis of Vulnerable Road User (VRU) Crashes



Foundational Steps Taken (2 of 2)

Bi-weekly Roadway Fatalities Meetings

Multi-division bi-weekly reviews of all fatal crashes has led to...

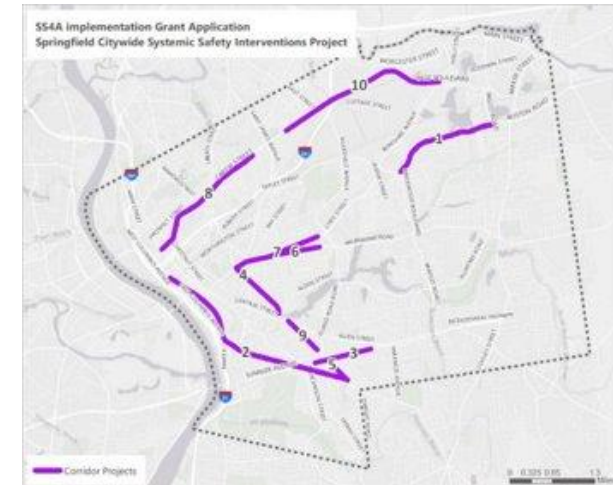
- a campaign on motorcycle safety,
- a review of passing zones by MassDOT Districts,
- a wrong-way driving pilot,
- successful grant applications with municipal partners,
- safety awareness videos,
- and other approaches to bring down fatalities based on data and insight discussed in these meetings



Part of a PSA for the launch of WWVD pilot



Part of a video series published on MassDOT social media channels

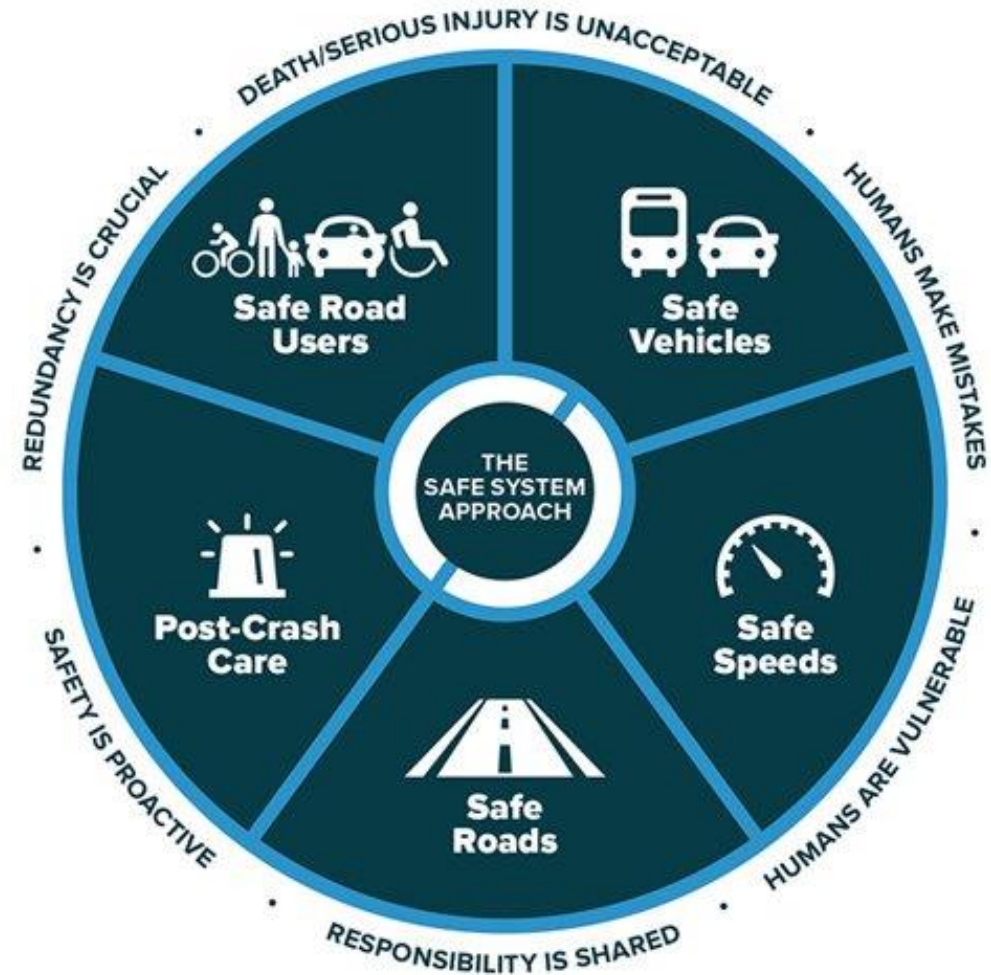


Safe Streets for All Grant – City of Springfield

Safe System Approach

To achieve zero roadway fatalities and serious injuries, Massachusetts has adopted a **Safe System Approach**, a U.S. Department of Transportation-endorsed framework for addressing roadway safety holistically as a system.

Massachusetts is viewed as a national leader by peer agencies not just for the adoption of this approach, but also the strategy for implementation.

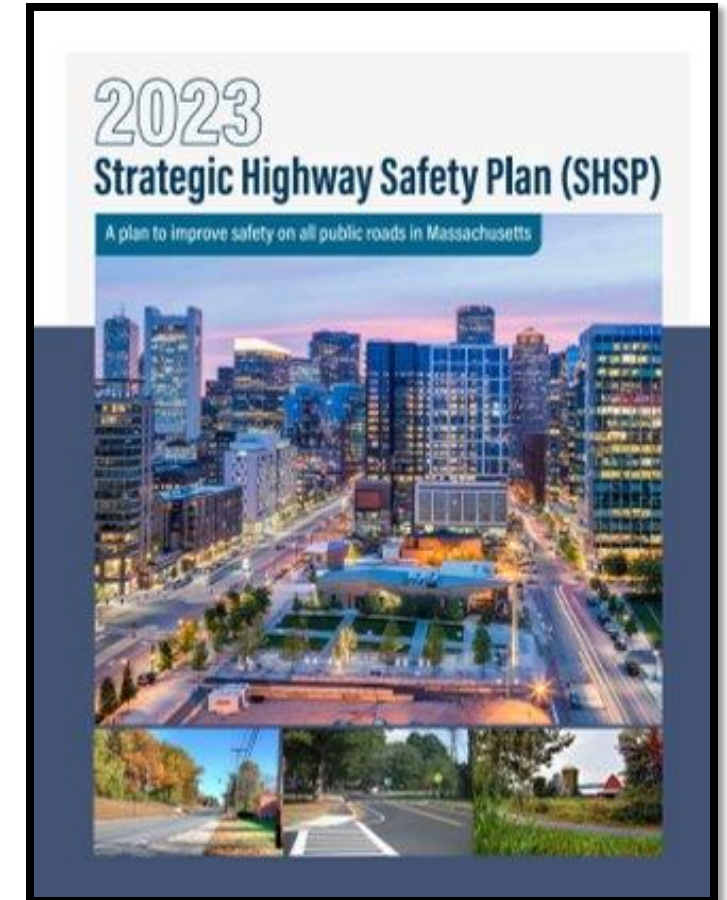


Source: FHWA.

Massachusetts Roadmap for Road Safety

Strategic Highway Safety Plan

1. Implement Speed Management
2. Address top-risk locations and populations
3. Take an active role in affecting change in vehicle design, features, and use
4. Accelerate research and adoption of technology
5. Double down on what works
6. Implement new approaches to public education and awareness



Initiatives Already Underway

Speed Management

- Provide community funding through the Shared Streets and Spaces Grant to address speed for locally owned roads
- Developed external Safe Speed website (www.mass.gov/safe-speeds) to assist municipalities
- Develop and execute a procedure for target speed setting. Draft guidance is undergoing reviews of Chapter 3 in the new Project Development and Design Guide (PDDG).
- Amend Massachusetts regulations related to speed (expand the definition of a school zone, adjust speed limit setting)
- Active Statewide Planning and Research (SPR) project that evaluates the impacts of speed management treatments related to emergency personnel and snow & ice operations.
- Developing a process to prioritize roadways with excessive speeding by comparing travel speed with speed limits.

Truck & Large Vehicle Safety

- New requirement that Commonwealth-owned, leased, and contracted trucks, install side guards and cross-over mirrors. (*Acts of 2022 Chapter 358 – An Act to Reduce Fatalities*)
- Launching study on Direct Vision and 'blind zones' in large trucks with USDOT Volpe Center

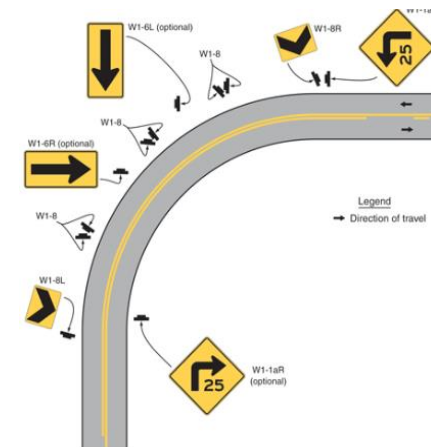
Initiatives Already Underway - with municipalities

Materials Procurement for Municipalities

- Focusing on Rural Run Off Roadway Departure (FoRRRwD) crashes – provided speed feedback boards and signage for high risk rural locally owned roadways in Districts 1 and 2 and expanding to District 3 and beyond.
- School zone assemblies provided to 130 communities (281 assemblies). All communities were offered. **Over 40% of pedestrian and bicyclist fatalities and serious injuries within 2,000 feet of a school.**
- Signage for new 4-foot safe passage signs offered to all communities. 119 communities opted in (3,144 signs) and 1,187 to MassDOT Districts (*Acts of 2022 Chapter 358 – An Act to Reduce Fatalities*)

Supporting Municipalities

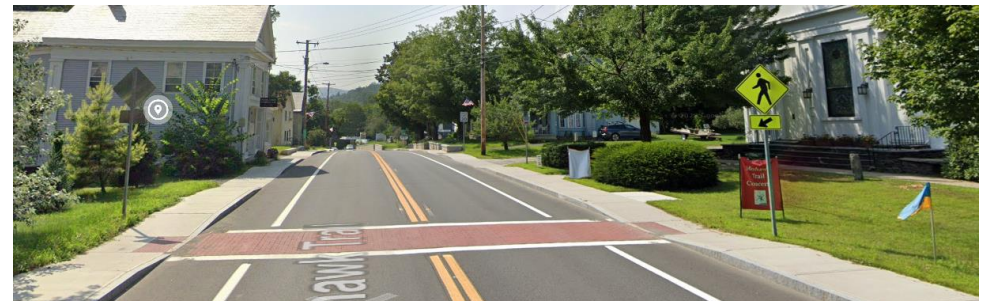
- Safe Streets and Roads for All
- Vulnerable Road User projects



Initiatives Already Underway

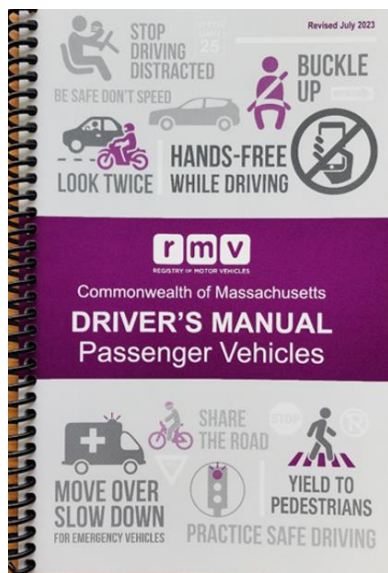
Enhancing Pedestrian Crossings at Bus Stops

- Over **40%** of all pedestrians fatally or seriously injured occurred within 300 feet of a bus stop
- Developing a multi-year program to enhance bus stop crossings where pedestrian risk is high or there is a high potential for walking
- FFY2024 starting with State-owned roadways (reviewing 212 bus stop locations)



Examples of existing pedestrian enhancements at bus stops
Images from staff and google streetview

Initiatives Already Underway



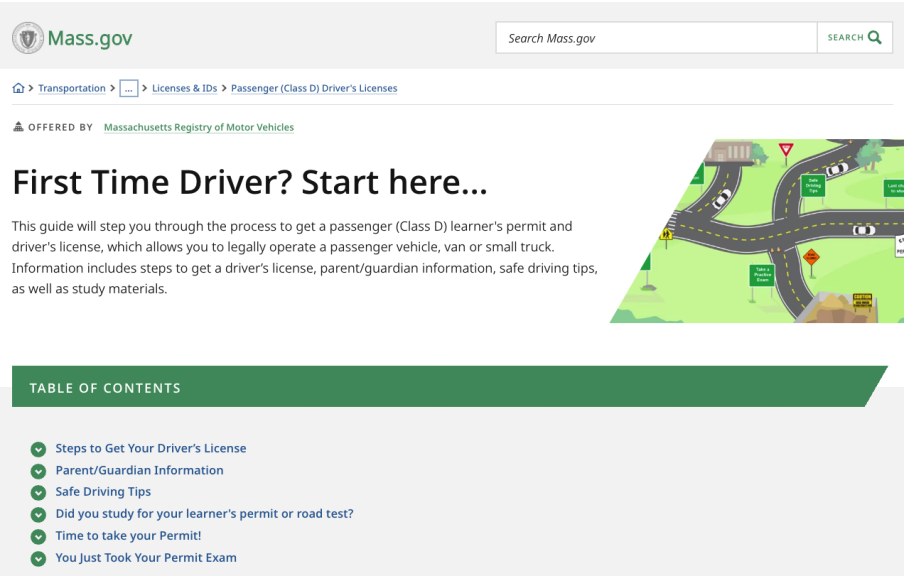
Updated Driver's Manual

focused on safety and foreign languages



Motorcycle Safety

A safety campaign that includes hangtags that appear on new motorcycles at dealerships



Website for First-Time Drivers

An easy-to-follow path for new drivers that clearly explains the steps to obtain a license

Appendix

Please complete a section for each vulnerable user involved in the crash.

Vulnerable User	Type	Action	Location
VU: _____ Address _____ City _____ State _____ Zip _____ License # _____ St _____ DOB/Age _____ Traffic Control Device <input type="text"/> Origin/Destination <input type="text"/> Contact Point: <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Primary Injury Area:

Event Sequence

Contributing Code

Distracted by

Test Status:

Type of Test:

BAC Test Result:

Susp. Alcohol:

Susp. Drug:

Diagram for VU6

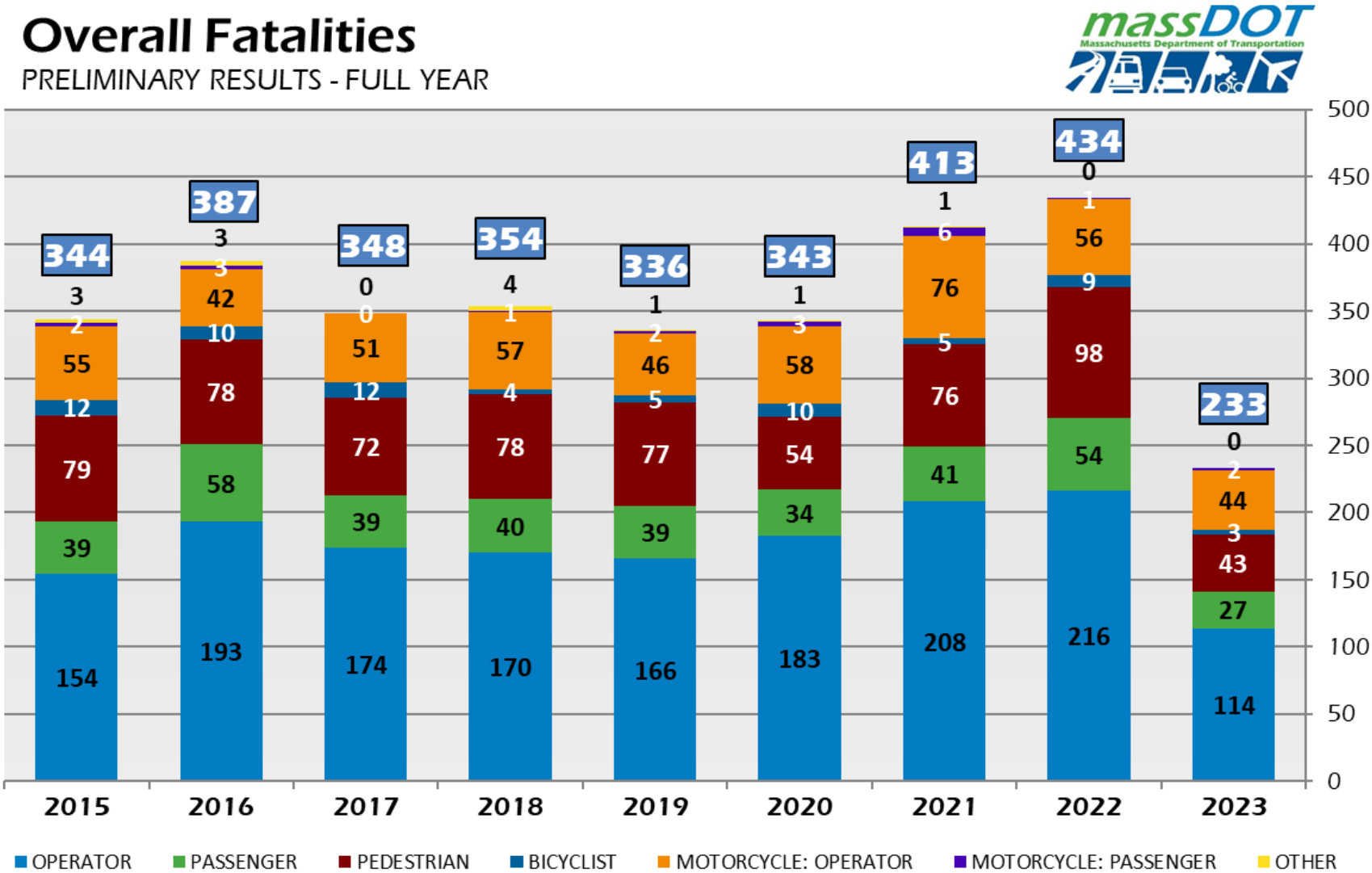
Overhead bicycle illustration. Source: Anne C. Lusk et al. In: Proc. Int. J. Traffic Acc. 2014-041217

Outcomes from Recurring Roadway Fatalities Meetings

1. **Motorcycle Campaigns** – vehicles specifically making left turns was a consistent detail in the crash, as well as single motorcycle fatalities involving speeding or running off the road. To address the issues, videos starring MassDOT employees who ride motorcycles were developed to raise safety awareness. Campaign tags were also created and distributed to motorcycle dealerships with the idea that the dealership hang them on the motorcycles in the showroom.
2. **Safety Event** –To raise awareness on fatal roadway crashes across drivers, passengers, pedestrians, motorcyclists, and bicycle, a collaborative safety event was held with EOPSS, MSP, law enforcement and transportation partners in June of 2022.
3. **Passing Zones** –Each district relooked at their passing zones to ensure they were safe to have in place, as many were deemed a passing zone several years prior and many other surrounding factors may have changed. District 5 was funded to change areas with passing zones to non-passing zones upon their review.
4. **Springfield** – Identified a specific area in Springfield where consistent fatalities occurred. MassDOT provided concepts for short-term projects that would help make the area safer. Springfield was able to fund via a 15M dollar grant. This type of collaboration will also be applied to support Brockton in their future efforts.
5. **Wrong Way Pilot** –The wrong way pilot program was developed and implemented in 16 areas in Massachusetts. The results of effectiveness on drivers are being studied by the department and additional areas to implement are being explored.
6. **Speed Management** –The speed management webpage was developed to raise awareness to the public with supporting data on why speed matters. We are now incorporating speed management in the Strategic Highway safety Plan as well as the Project Developments and Design Guide.
7. **Pedestrian Fatalities** – Included in the updated version of the Driver's Manual that 1 in 5 motor vehicle deaths involve a pedestrian. The federally mandated Vulnerable Road User Assessment also ties our efforts in raising awareness and implementing safety measures for pedestrians.
8. **3M Reflective Tape** – Older pedestrian fatalities was a rising trend discovered. 3M reflective tape was distributed to COAs that can be applied to clothing, shoes, backpacks etc. and seen 300 Ft. away. The tape was distributed to encourage older pedestrians to use it while walking

9. **Bicyclist Videos** – In an effort to raise awareness of bicyclists, like the motorcycle awareness videos, the team is in the process of completing the development of bicyclist videos.

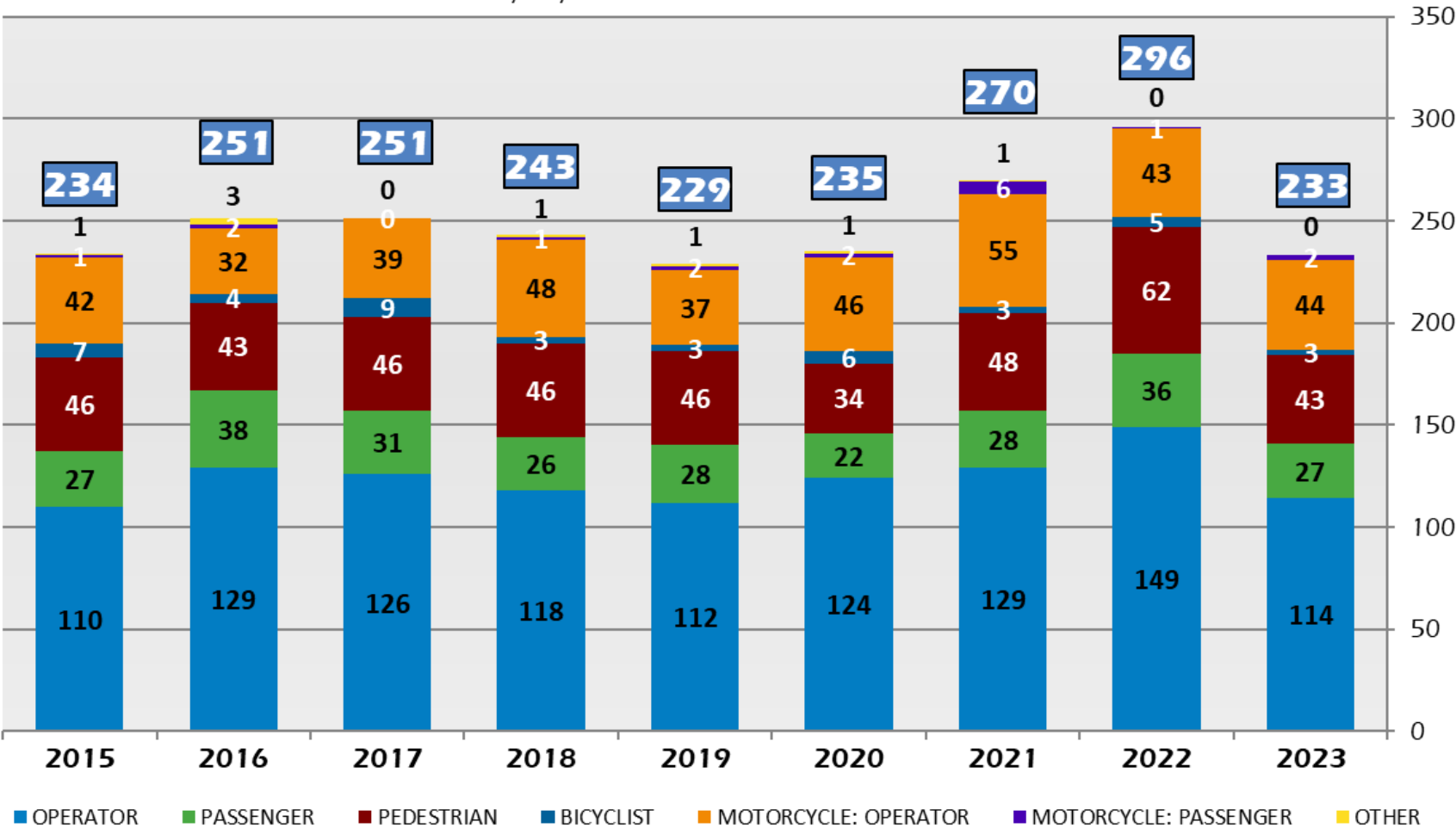
Annual Fatalities - year over year



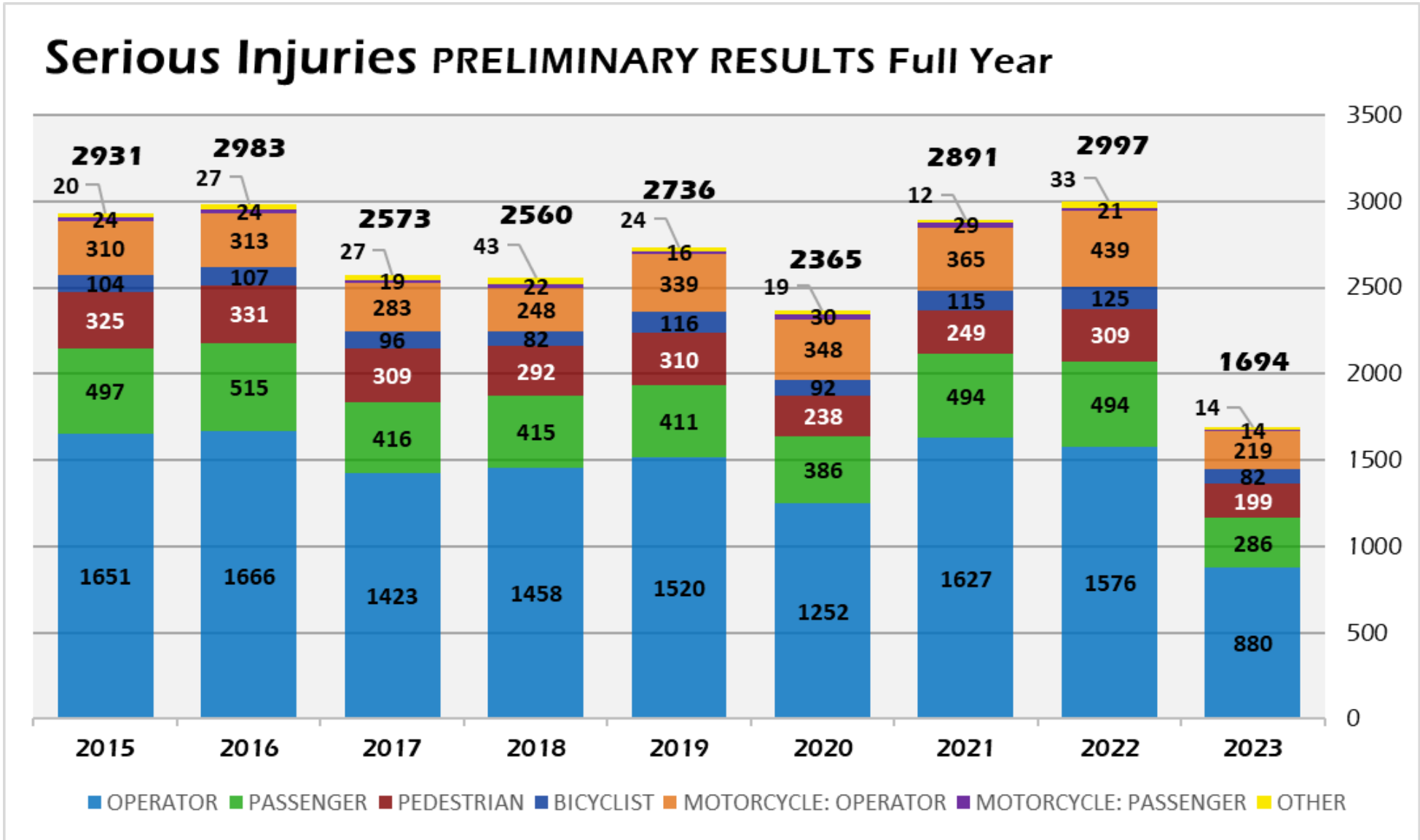
Annual Fatalities Comparison - To Date

Overall Fatalities

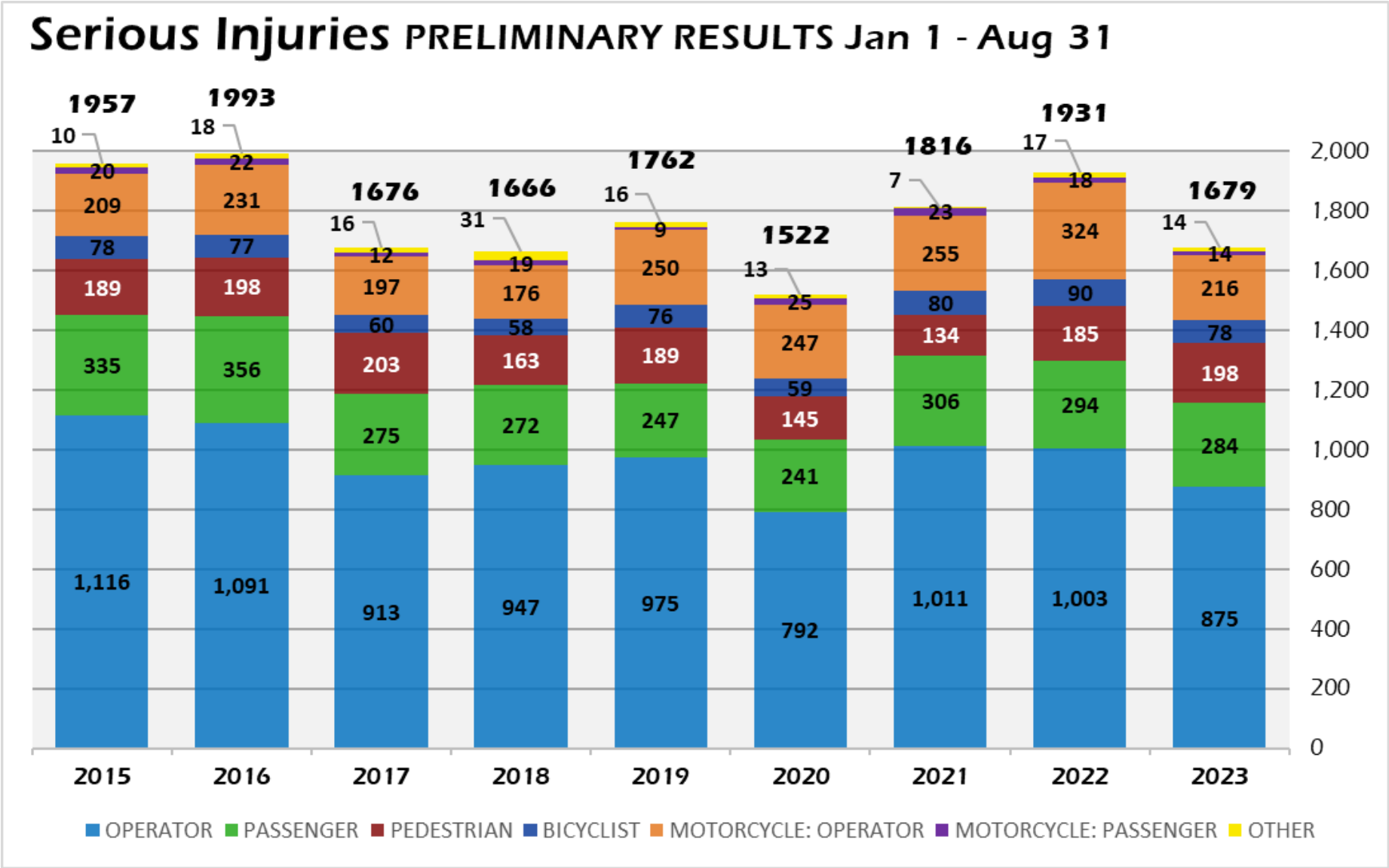
PRELIMINARY RESULTS - YTD thru 9/10/23



Annual Serious Injuries - year over year



Annual Serious Injuries Comparison - To Date



Resources



Strategic Highway Safety Plan:

<https://www.mass.gov/doc/massachusetts-shsp-2023/download>



Vulnerable Road User Safety Assessment:

<https://storymaps.arcgis.com/stories/8b36ed2f1f3749b7ac085c0ca5b8efa7>



IMPACT:

<https://apps.impact.dot.state.ma.us/cdp/home>