Roadway Safety Overview

April 15th, 2025

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MassDOT's Strategic Safety Approach

Safe System Approach – Moving from E's to Safe Systems

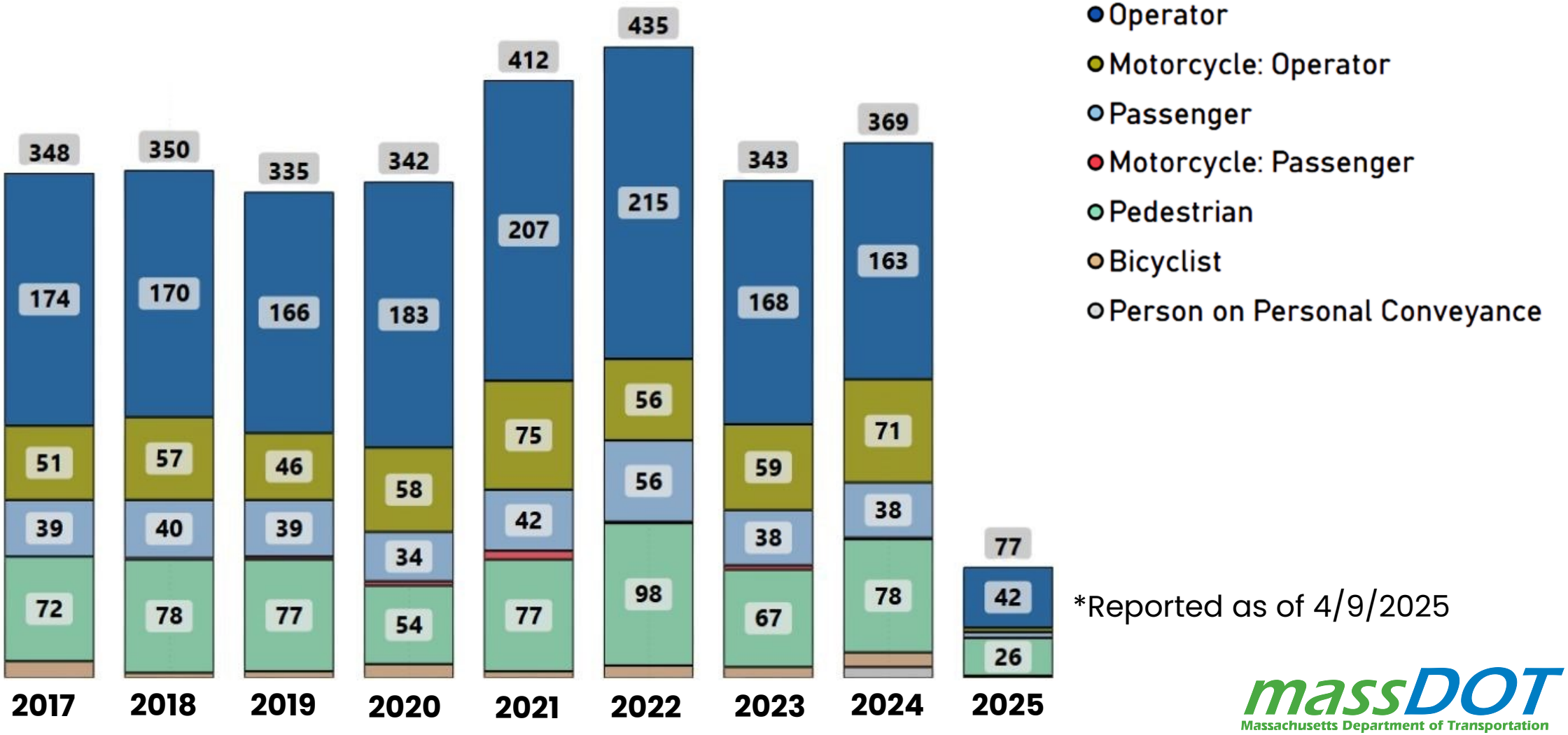




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Massachusetts Crash Data Trends

Fatalities – Pre and Post Pandemic

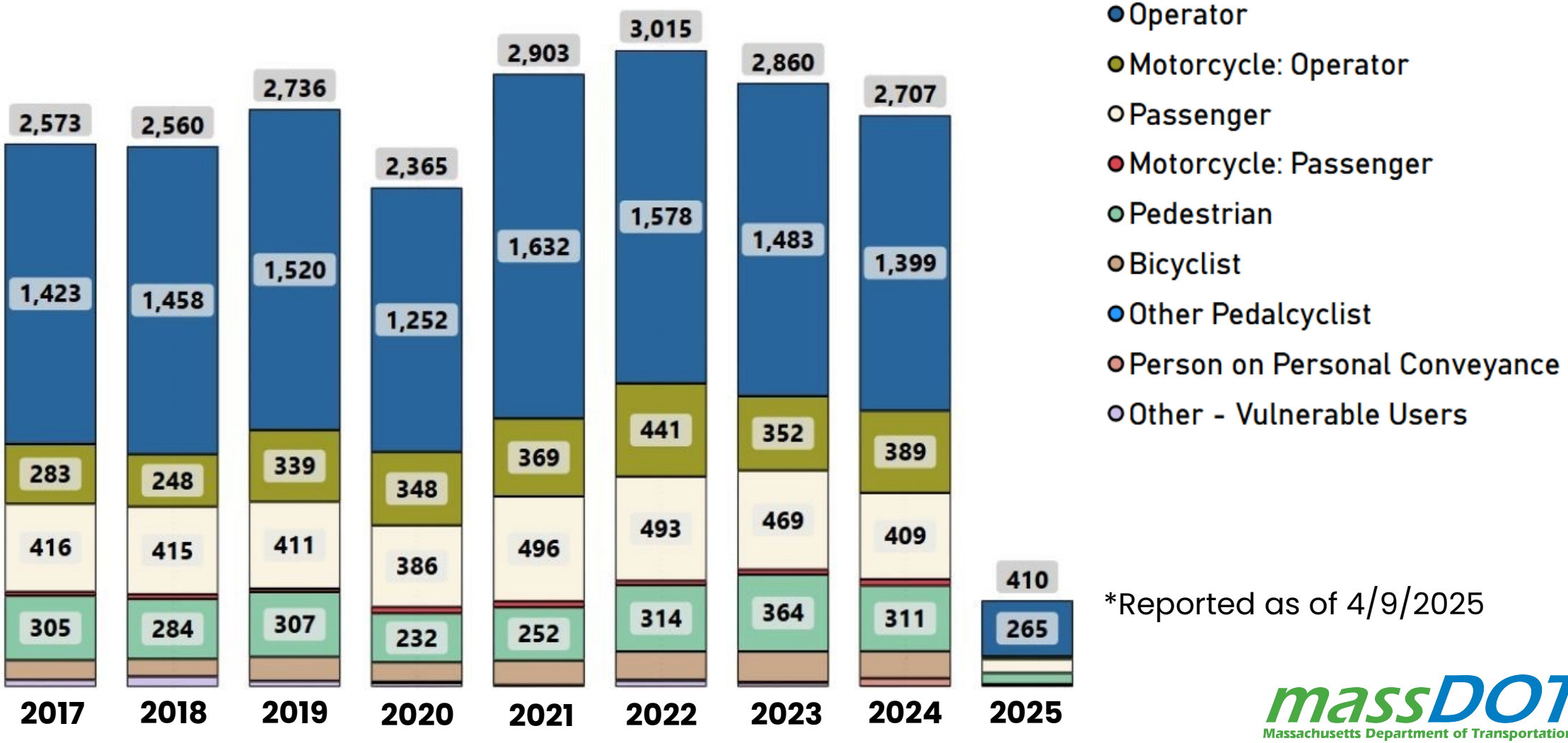


*Reported as of 4/9/2025

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Massachusetts Crash Data Trends

Serious Injury – Pre and Post Pandemic



*Reported as of 4/9/2025

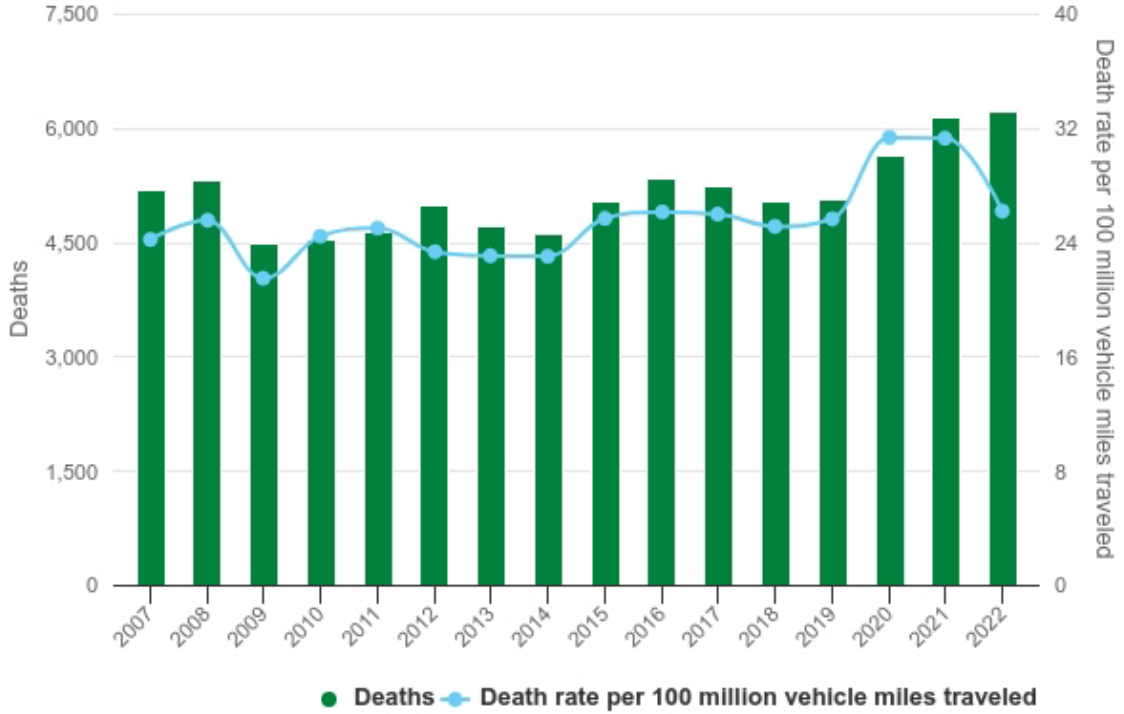
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Massachusetts Crash Data Trends

How does Massachusetts compare to other states in roadway safety?

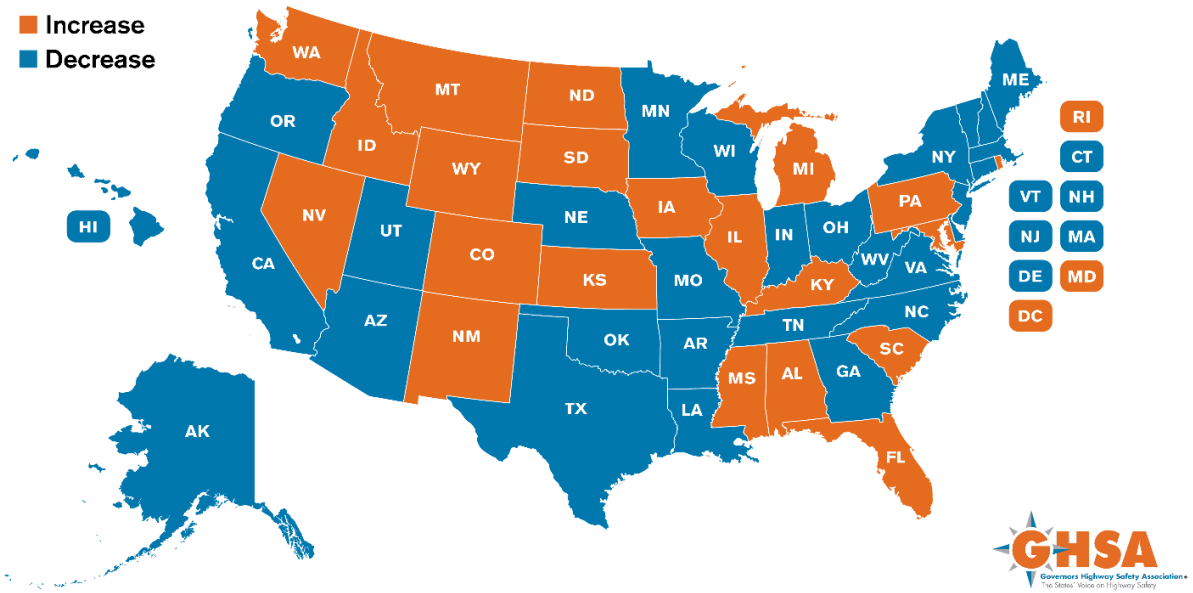
- Many states have seen increases during and immediately post-COVID.
- Pedestrian and motorcyclist fatalities increased during and immediately after the pandemic. In 2023, like MA, many states experienced improvements in safety. In 2024, trends have been less consistent, but it is still too early to draw definitive conclusions.

US Motorcyclist Deaths and Death Rates, 2007-2022



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Changes in Pedestrian Traffic Fatalities by State, 2022-2023



GHSA Governors Highway Safety Association

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Speed Management

Implement Safe Speed into projects

Speed-related fatalities trends:

Pre-pandemic **27.3%**, Post-pandemic **29.4%**.

Current Programs

- Speed Management Group
- Target speed setting process
- Enhanced "Safe Speed" webpage and toolkit for municipalities and public
- Research – USLimits3, Speed Reduction Countermeasures
- Projects – Integrating speed management and standalone speed management projects
- Proactive network screening on crash risks such as speeding and lane departure

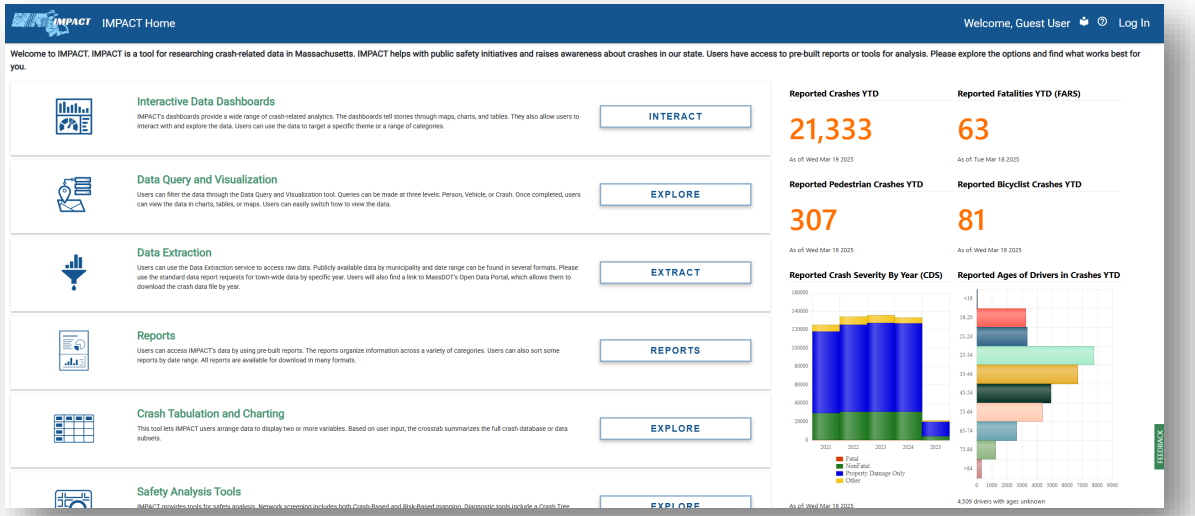


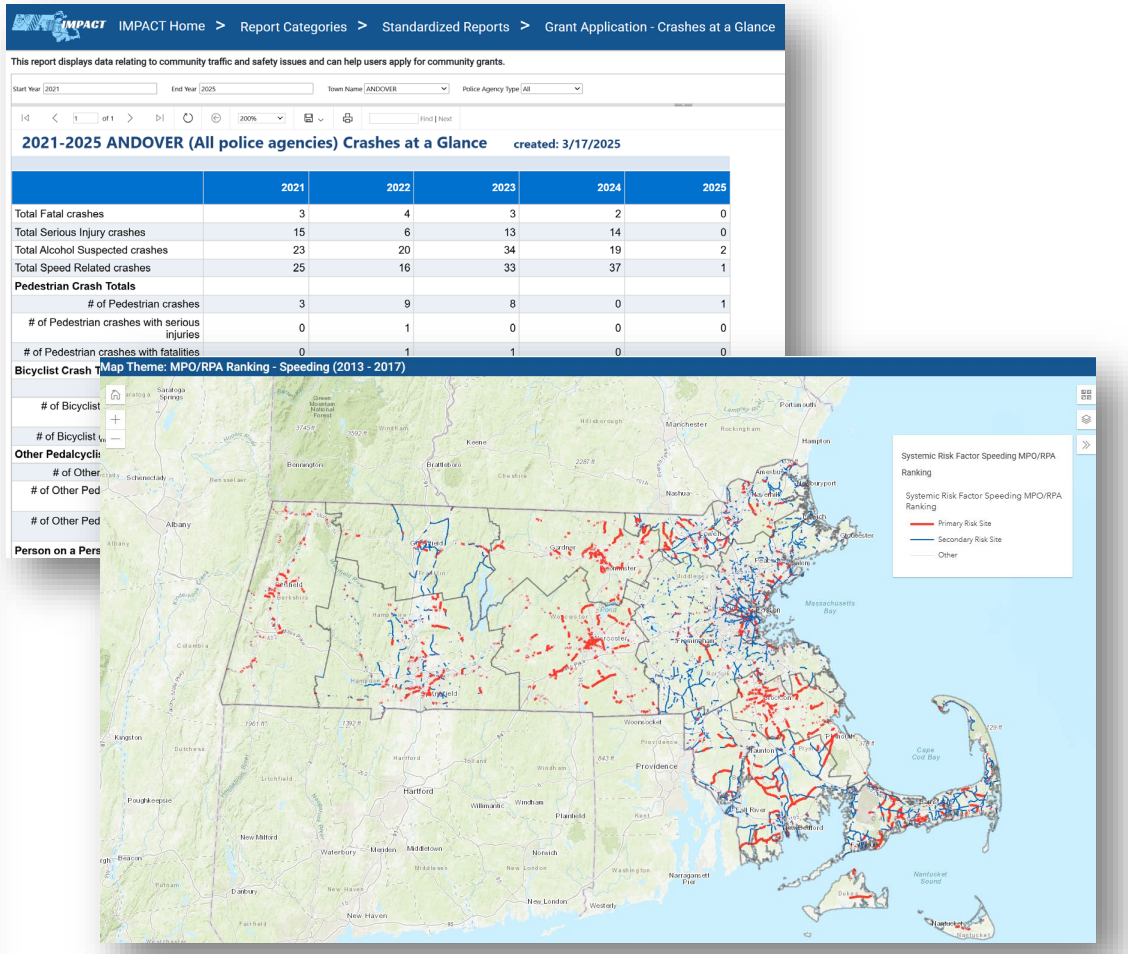
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Crash Data Analysis Tools

MassDOT IMPACT *(Interactive Mapping Portal for Analysis and Crash Tracking)* Crash Data Portal

- Portal implemented in July 2019. Designed to encourage public safety initiatives and awareness specific to crash information.
- Averaging 1500+ users and 3000+ page views per month.
- Contain six modules that give users various ways to view, analyze, and download crash data. There are pre-defined dashboards, customizable queries, crosstab tools, and pre-build reports for EOPSS and police departments.





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Project Selection

Safety Project evaluations

Table 12. Summary of service life benefits and HSIP B/C for hot-spot projects.

Project Number	Project Description	Total Crashes Reduced	Fatal and Injury Crashes Reduced	Lives Saved	Serious Injuries Prevented	Present Value HSIP Cost	Present Value Safety Benefits	HSIP B/C
602202	Salisbury- Reconstruction of Route 1 (Lafayette Road)	845.6	147.4	1.8	13.4	$2,543,975	$37,592,926	14.8
606233	Pittsfield- Intersection & Signal Improvements at First Street & North Street (Near Berkshire Medical Center)	165.6	45.4	0.6	4.1	$500,641	$10,560,754	2.3
606895	Granby- Improvements at 2 Locations on Route 202: School Street & Five Corners	148.0	86.2	1.1	7.9	$1,695,380	$15,068,673	8.9
607397	Wellfleet- Intersection Improvements & Related Work at Route 6 & Main Street	32.8	13.6	0.2	1.2	$2,000,000	$2,538,965	1.3

The total effects of STIP projects in 2024 and 2025, including HSIP funds, are expected to produce a B/C ratio of 4.5, returning $4.50 in safety benefits for every $1 in HSIP funds.

Table 14. Summary of HSIP benefits and HSIP B/C by project type.

Project Type	Total Crashes Reduced	Fatal and Injury Crashes Reduced	Lives Saved	Serious Injuries Prevented	Present Value HSIP Costs	Present Value Benefits	HSIP B/C
Hot-Spot	3,250	2,024	25	185	$74,605,470	$325,919,152	4.4
Systemic	411	201	2.5	18.3	$7,400,880	$45,024,440	6.1
Total	**3,661**	**2,225**	**27.5**	**203.3**	**$82,006,350**	**$370,943,592**	**4.5**

MassDOT Highway Safety Improvement Program (HSIP) dollars can be spent on projects in three STIP categories: **Safety**, **Intersection**, and some **Rodway Reconstruction.** For each project's service life, MassDOT estimated:

- Total number of crashes reduced
- Fatal and injury crashes reduced
- Number of lives saved
- Number of serious injuries prevented
- Monetary safety benefits
- HSIP Benefit/Cost ratio (B/C)

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Partnerships & Communication campaigns

Community Voice Safety Campaign – Brockton Seatbelt Use Awareness

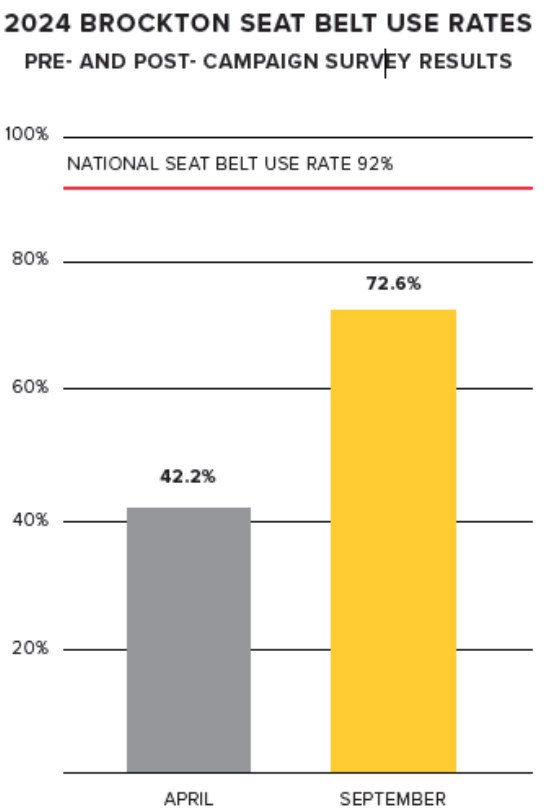
- In November 2023, a road safety communications program was initiated to address the low seat belt usage in Brockton.
- This program prioritized the involvement of community stakeholders throughout the entire campaign development process. A **significant shift** from MassDOT's traditional top-down media campaigns, **employing a first-ever, community-driven model.**

Campaign Effectiveness

- Over six months, this grassroots effort brought seat belt compliance in Brockton from **42.5% to 72%.**
- **9.3 million** impressions generated from ads on Brockton area transit buses and billboards.
- **11,400** banded air fresheners distributed.
- **1,000** seat belt covers designed by students at Brockton Public Schools.
- **5,000** students learning about seat belt safety in art, health, PE and music classes.











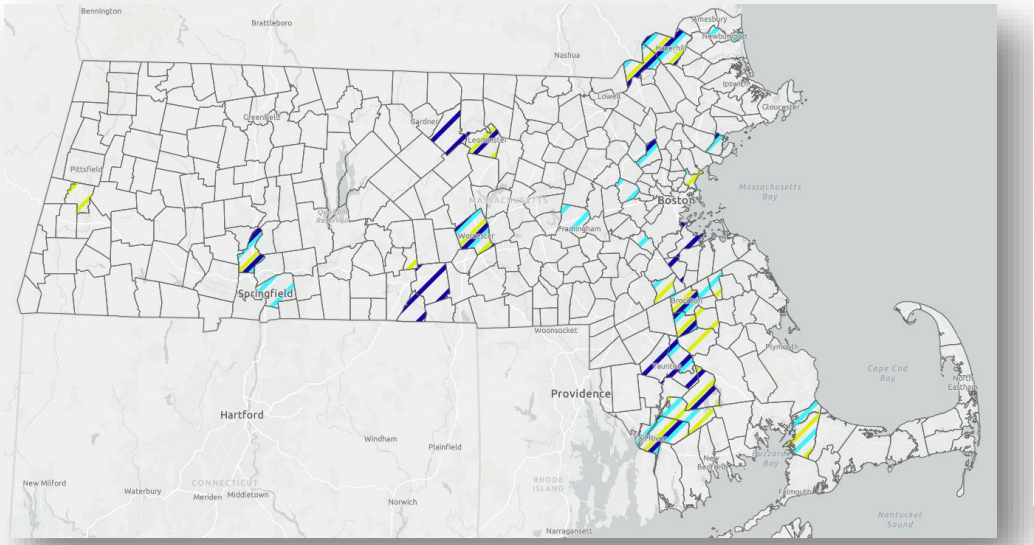
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Partnerships & Communication campaigns

Community Voices Road Safety Initiative

- Adapting the Community Voices framework to address **data-driven** road safety issues in three Massachusetts cities and towns.
- The three key objectives and municipalities are:
  - **Enhance Pedestrian Safety** – Chelsea
  - **Reduce Speeding** – Leominster
  - **Reduce Distracted Driving** – Holyoke

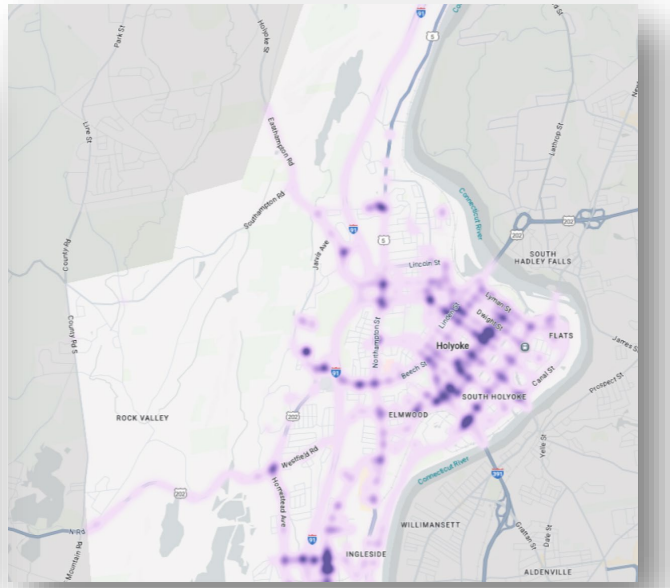
- Project kick-off in Feb 2025.
- Partnering with IIHS, Cambridge Mobile Telematics, Replica, Safer Street Solutions.
- Will provide before and after qualitative analysis on the campaigns





Distracted Driving Prevention Grant Results: Washington

Phone use heatmap of Holyoke



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Safety Behavior Enforcement

Partnership with Massachusetts State Police



- MassDOT regularly works with EOPSS and MSP on our biweekly Roadway Fatalities Meeting.
- Municipalities reach out to MSP on safety issues on Route 495 in Westford (distracted driving), and the J-handle on Route 1 in Peabody (running redlight) to MSP, and we work collaboratively on providing detailed data analysis which help decide the best approach for targeted enforcement and education.

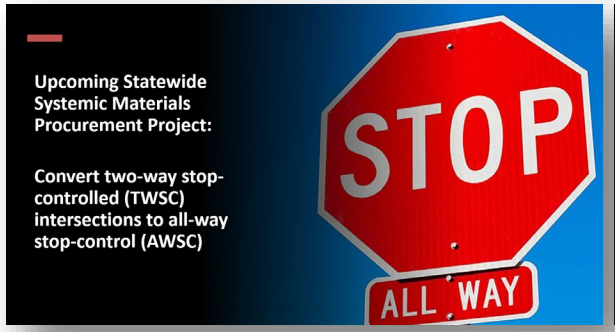
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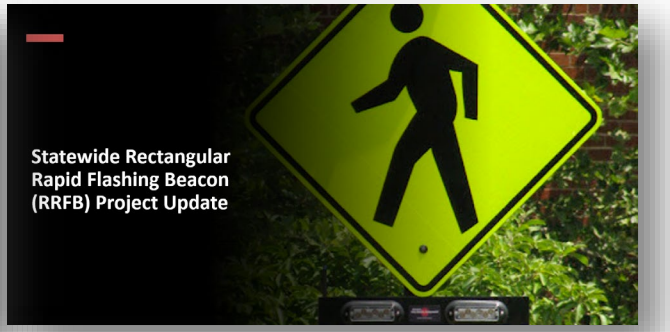
Collaboration with Municipalities

Systemic Materials Procurement Projects

- Deploying several statewide systemic materials procurement projects aiming to improve local road safety across the state using low-cost, short-term safety countermeasures.

- School Zone Speed feedback project: **A total of 138 locations in 130 towns.**
- Safe Passing sign: **A total of 5,025 signs in 149 towns.**
- RRFB project: **A total of 237 locations in 75 towns.**
- AWSC project: **A total of 95 locations in 37 towns.**





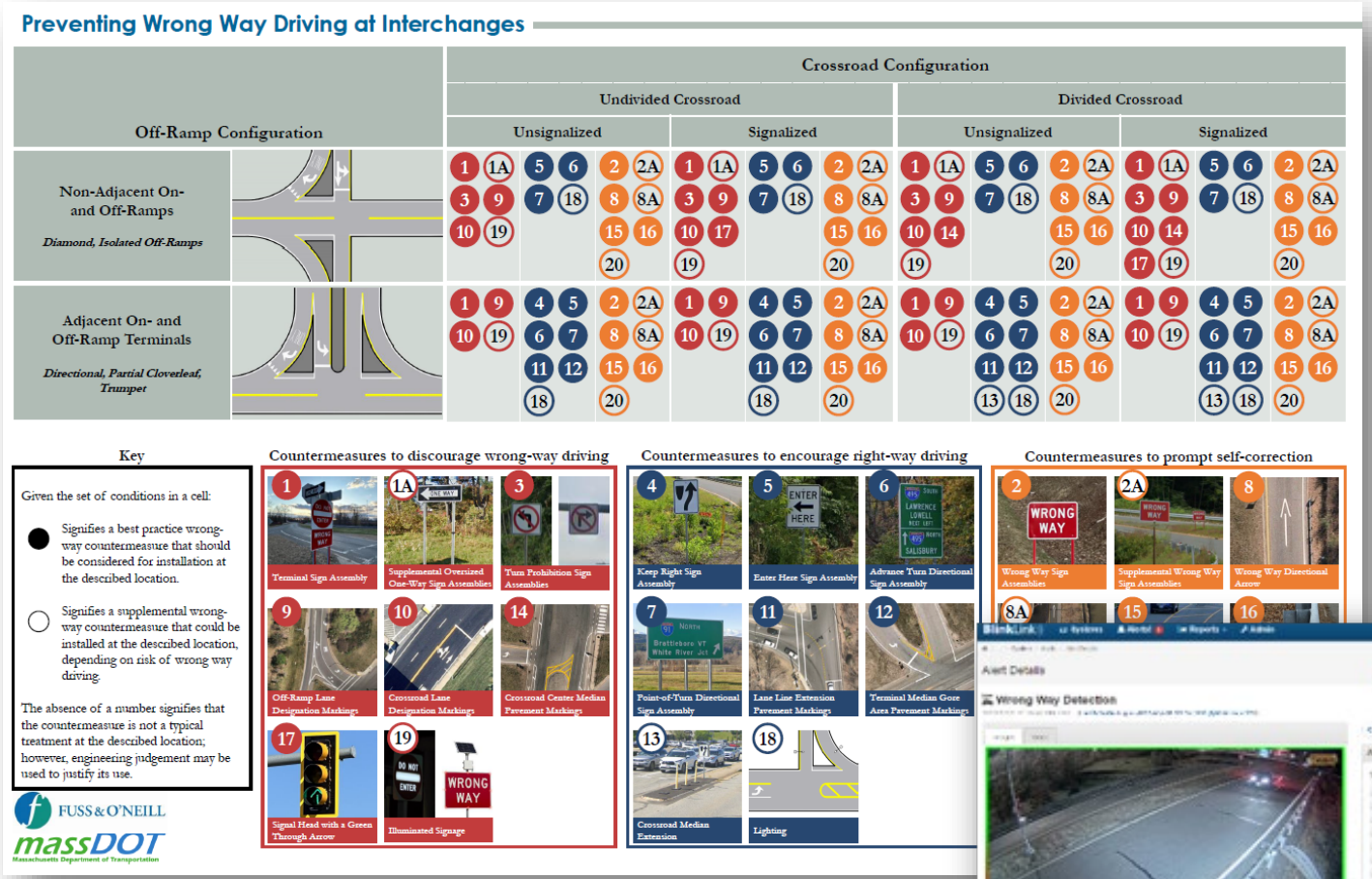




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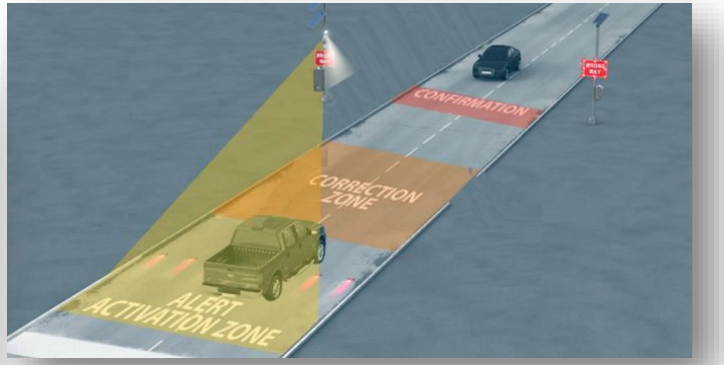
Wrong Way Program

Status Update



- From November 2*nd*, 2022 – January 1*st* 2025 the 16 systems have recorded 205 confirmed wrong way events, with a 56% self-correction/turnaround rate.
- MassDOT is considering another systemic low-cost project to address the higher risk interchange locations in District 2 that were not part of the original wrong way prevention due to active construction conflicts.





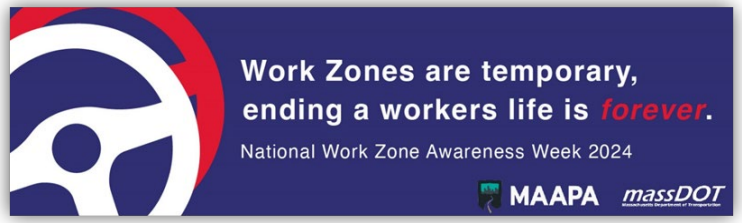
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National Work Zone Awareness Week

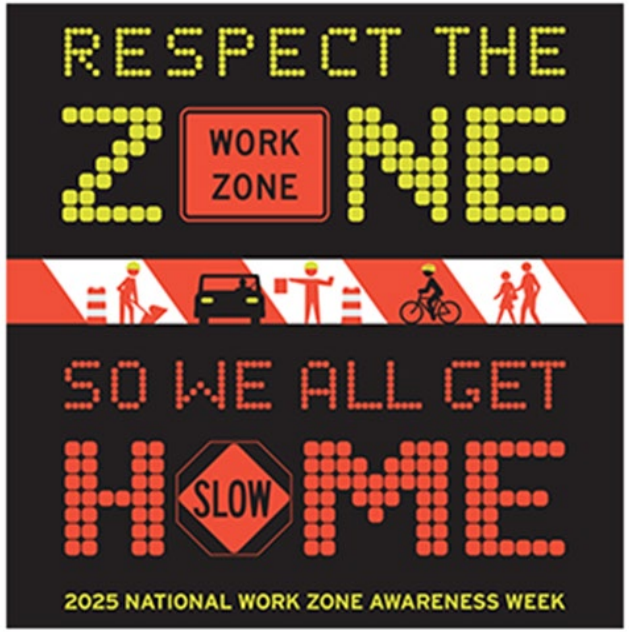
April 21-25, 2025

MassDOT supports National Work Zone Awareness Week

- Public Outreach- Extensive use of Variable Message Boards, Digital Billboards and monitors at RMV Branches
- Go **Orange Day** – Wednesday, April 23: Focus on supporting the men and women working out on the roadway
- MassDOT Launched the 3rd Annual Work Zone Safety Digital Billboard Design Contest on February 21st
- Contest is open to all Massachusetts College Students and through sponsorships with CIM and MAAPA, a total of $2,000 will be awarded across the Top 3 Entries
- Announced at Innovation Conference







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Thank You

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