

Appendix A

MASSDOT CY25 SAFETY PERFORMANCE MEASURE TARGETS (PM1)

The National Performance Management Measures: Highway Safety Improvement Program rule identifies five performance measures related to crashes involving motor vehicles for which targets must be set:

1. Number of fatalities
2. Rate of fatalities per 100 million vehicle-miles traveled (VMT)
3. Number of serious injuries
4. Rate of serious injuries per 100 million VMT
5. Number of nonmotorized fatalities and nonmotorized serious injuries

Total Fatalities

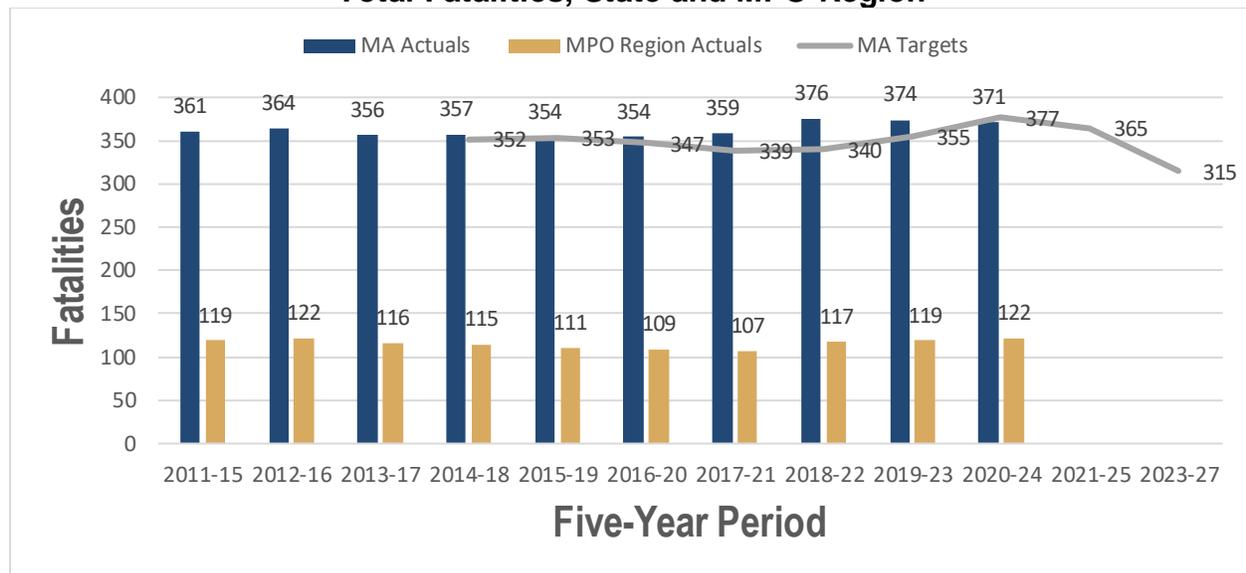
Per Federal Highway Administration guidance, the calendar year (CY) 2025 five-year rolling average (2021–25) target-setting process began with a trend line projection based on the most recent available data. Due to higher rates of speeding caused by decreased vehicle-miles traveled (VMT) amid pandemic shutdowns in 2020 and the lingering impacts into 2021 and 2022, roadway fatalities were increasing relative to previous years. However, Massachusetts began to see this trend reverse in 2023. As stated in the Infrastructure Investments and Jobs Act, performance targets must demonstrate constant or improved performance. In addition, similar to last year, the Massachusetts Department of Transportation (MassDOT) also developed a 2023–27 projection to forecast current trends further into the future.

To estimate 2024 fatalities, MassDOT compared data from 2015–23 to the data available at the time of target setting in July 2024. On average, 55 percent of annual fatalities occurred between January 1 and July 30 of each year. Therefore, to estimate 2024 fatalities, MassDOT divided the number to date by 55 percent. A three percent annual reduction in fatalities was then assumed to obtain an estimate for 2025, which brings the 2021–25 five-year rolling average to 365. If this three percent decrease in annual fatalities continues, MassDOT projects the 2023–27 five-year average to be 315.

Although numeric targets have been established following federal guidelines, MassDOT's overarching goal is zero deaths and this goal will be pursued by implementing strategies from the [Strategic Highway Safety Plan](#) (SHSP). The Massachusetts SHSP and [Vulnerable Road User Safety Assessment](#) were both updated and finalized in 2023. These strategies help provide details on how the state will decrease fatalities and serious injuries.

Figure 1 shows five-year rolling averages of past state and regional performance on fatalities, as well as the state’s performance targets. The five-year rolling average target for **2021–25** is **365** fatalities.

Figure 1
Total Fatalities, State and MPO Region



MA = Massachusetts.

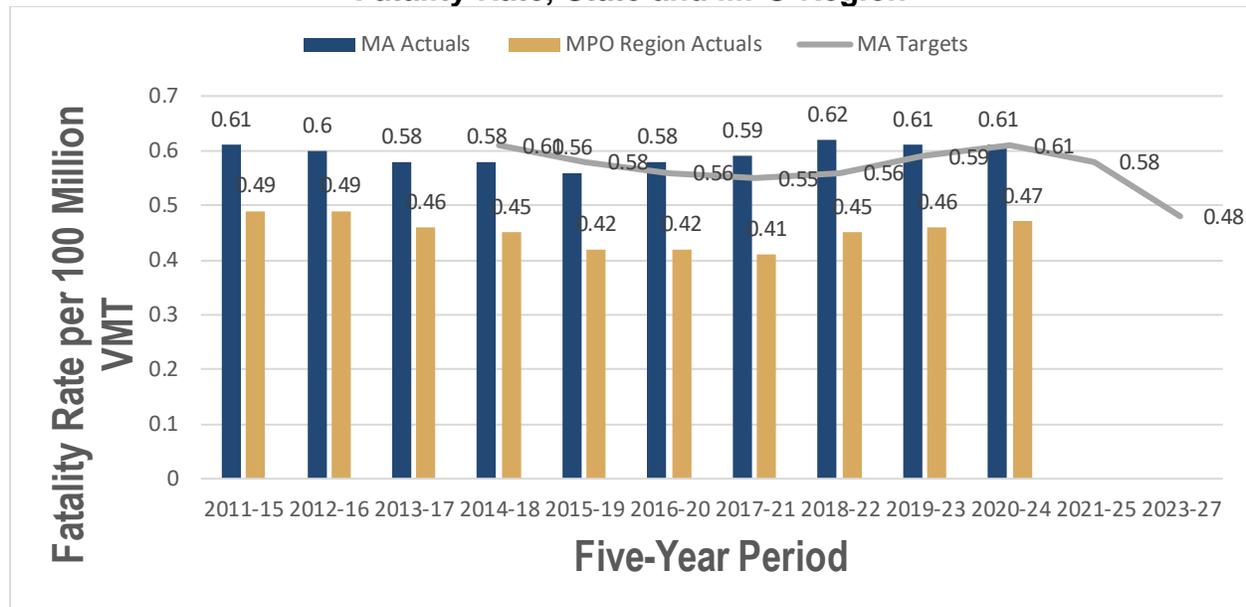
Sources: Federal Highway Administration, Commonwealth of Massachusetts, and Boston Region MPO Staff.

Fatality Rate

The fatality rate represents five-year average fatalities divided by five-year average VMTs. The COVID-19 pandemic greatly impacted VMT, causing fatality rates to spike in 2020 with significantly lower VMT and slightly higher fatalities. However, VMT in Massachusetts is returning to pre-pandemic levels and annual projections for 2024 are nearly in line with 2019, while 2025 projections are slightly higher. Consequently, the five-year average fatality rate is estimated to be 0.58 fatalities per 100 million VMT for 2021–25. If this trend continues, MassDOT projects a decrease to 0.48 fatalities per 100 million VMT for 2023–27.

Figure 2 shows five-year rolling averages of past state and regional performance on fatality rate, as well as the state’s targets. The five-year rolling average target for **2021–25** is **0.58** fatalities per 100 million VMT.

Figure 2
Fatality Rate, State and MPO Region



MA = Massachusetts. VMT = Vehicle-Miles Traveled.
Sources: Federal Highway Administration, Commonwealth of Massachusetts, and Boston Region MPO Staff.

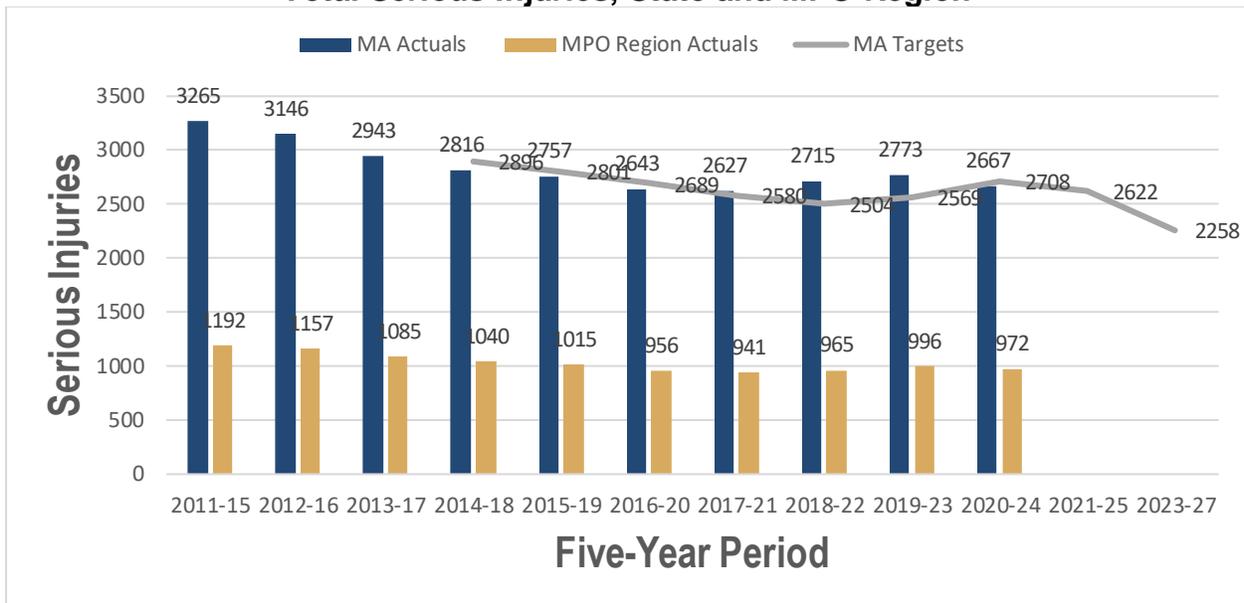
Total Serious Injuries

The target-setting process began with a trend line projection based on the most recent available data. The 2022 and 2023 serious injury data were not finalized in the statewide crash system during this process, so it is possible these figures will change once that data becomes final.

Due to higher rates of speeding caused by decreased VMT amid pandemic shutdowns in 2020 and the lingering impacts into 2021 and 2022, serious injuries increased relative to previous years. However, Massachusetts began to see this trend reverse in 2023. To estimate 2024 serious injuries, MassDOT compared data from 2015–23 to the data available at the time of target setting. The number of serious injuries in 2024 to date were divided by 55 percent, the average of serious injuries that occur between January 1 and July 30 each year. A three percent annual reduction in serious injuries was then assumed to obtain an estimate for 2025, which brings the 2021–25 five-year rolling average to 2,622. If this three percent annual decrease continues, the 2023–27 five-year average of serious injuries will be 2,258.

Figure 3 shows five-year rolling averages of past state and regional performance on serious injuries, as well as the state’s targets. The five-year rolling average target for **2021–25** is **2,622** serious injuries.

Figure 3
Total Serious Injuries, State and MPO Region



MA = Massachusetts.

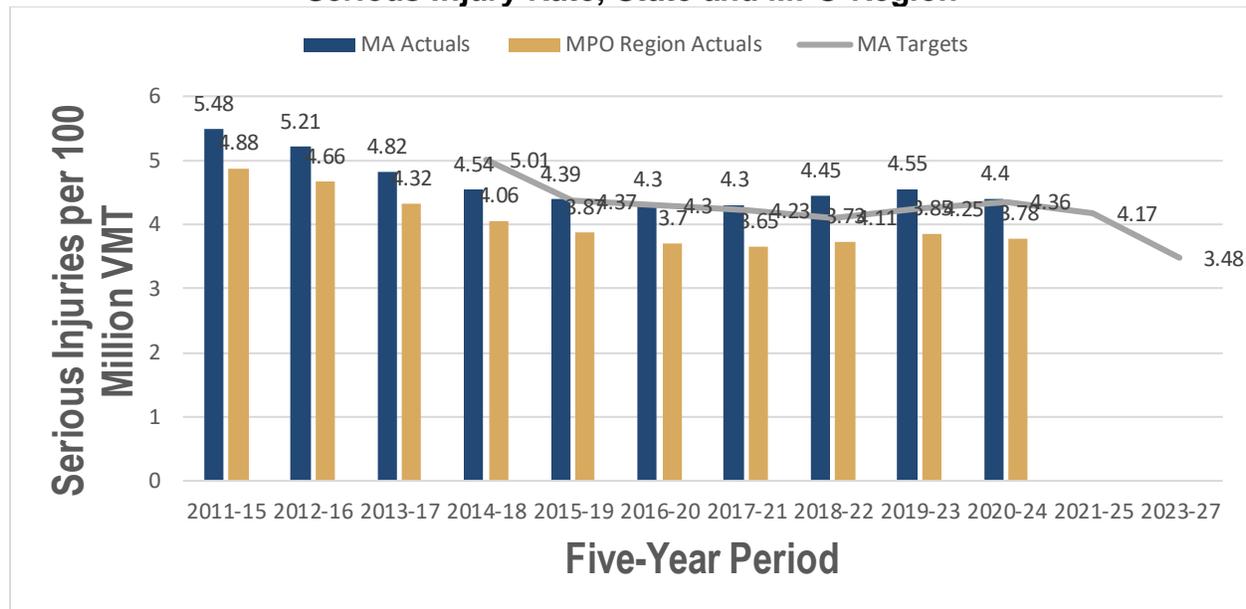
Sources: Federal Highway Administration, Commonwealth of Massachusetts, and Boston Region MPO Staff.

Serious Injury Rate

Similar to the fatality rate, the rate of serious injuries is trending toward pre-pandemic levels. Following the same methods to derive the five-year average fatality rate, the five-year average serious injuries rate is estimated to be 4.17 serious injuries per 100 million VMT for 2021–25. If this trend continues, MassDOT projects a decrease to 3.48 serious injuries per 100 million VMT for 2023–27.

Figure 4 shows five-year rolling averages of past state and regional performance on serious injury rate, as well as the state’s targets. The five-year rolling average target for **2021–25** is **4.17** serious injuries per 100 million VMT.

Figure 4
Serious Injury Rate, State and MPO Region



MA = Massachusetts. VMT = Vehicle-Miles Traveled.

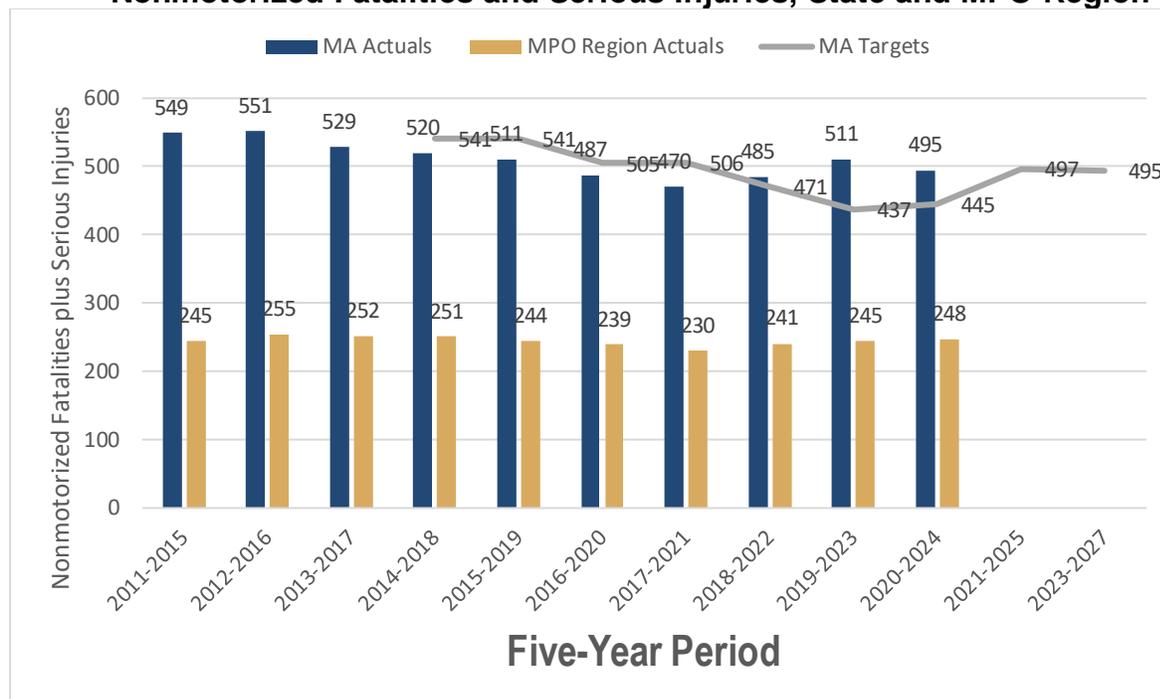
Sources: Federal Highway Administration, Commonwealth of Massachusetts, and Boston Region MPO Staff.

Total Nonmotorized Fatalities and Serious Injuries

The number of nonmotorized fatalities and serious injuries has fluctuated greatly in recent years. Nonmotorized fatalities, specifically, increased through 2022 and then dropped precipitously, while serious injuries appear to have peaked in 2023 and show signs of decreasing in 2024. On average, 54 percent of annual nonmotorized fatalities and serious injuries occur between January 1 and July 30. Therefore, to estimate 2024 fatalities, MassDOT divided the number to date by 54 percent. Based on the state’s increased work and emphasis to protect vulnerable road users, a five percent annual reduction in nonmotorized fatalities and serious injuries was then assumed to obtain an estimate for 2025, which brings the 2021–25 five-year rolling average to 497. If this five percent annual decrease continues, MassDOT projects the 2023–27 five-year average to be 445.

Figure 5 shows five-year rolling averages of past state and regional performance on nonmotorized fatalities plus nonmotorized serious injuries, as well as the state’s targets. The five-year rolling average target for **2021–25** is **497** nonmotorized fatalities and serious injuries.

Figure 5
Nonmotorized Fatalities and Serious Injuries, State and MPO Region



MA = Massachusetts.

Sources: Federal Highway Administration, Commonwealth of Massachusetts, and Boston Region MPO Staff.

While the rolling averages of nonmotorized fatalities and serious injuries have been trending downward for a decade statewide, on an annual basis, nonmotorized fatalities and serious injuries have varied from year to year. In some individual years, the trend for nonmotorized fatalities has moved in the opposite direction of nonmotorized serious injuries, which is not captured in Figure 5.

Note: The fatality and serious injury data contained here was developed to align with the data included in MassDOT's annual Highway Safety Improvement Program report. As such, historical data may be different from what was reported in prior years.

The targets were developed in coordination with the Executive Office of Public Safety and Security, the Highway Safety Division, and other sections within MassDOT. Although MassDOT emphasizes that the state's goal is zero fatalities and serious injuries, the state targets presented here are not "goals" but realistic targets considering the events of the last several years. The Secretary of Transportation and Highway Division Administrator for MassDOT approved the targets, recognizing that MassDOT must demonstrate short-term incremental steps to achieve the Commonwealth's goal.