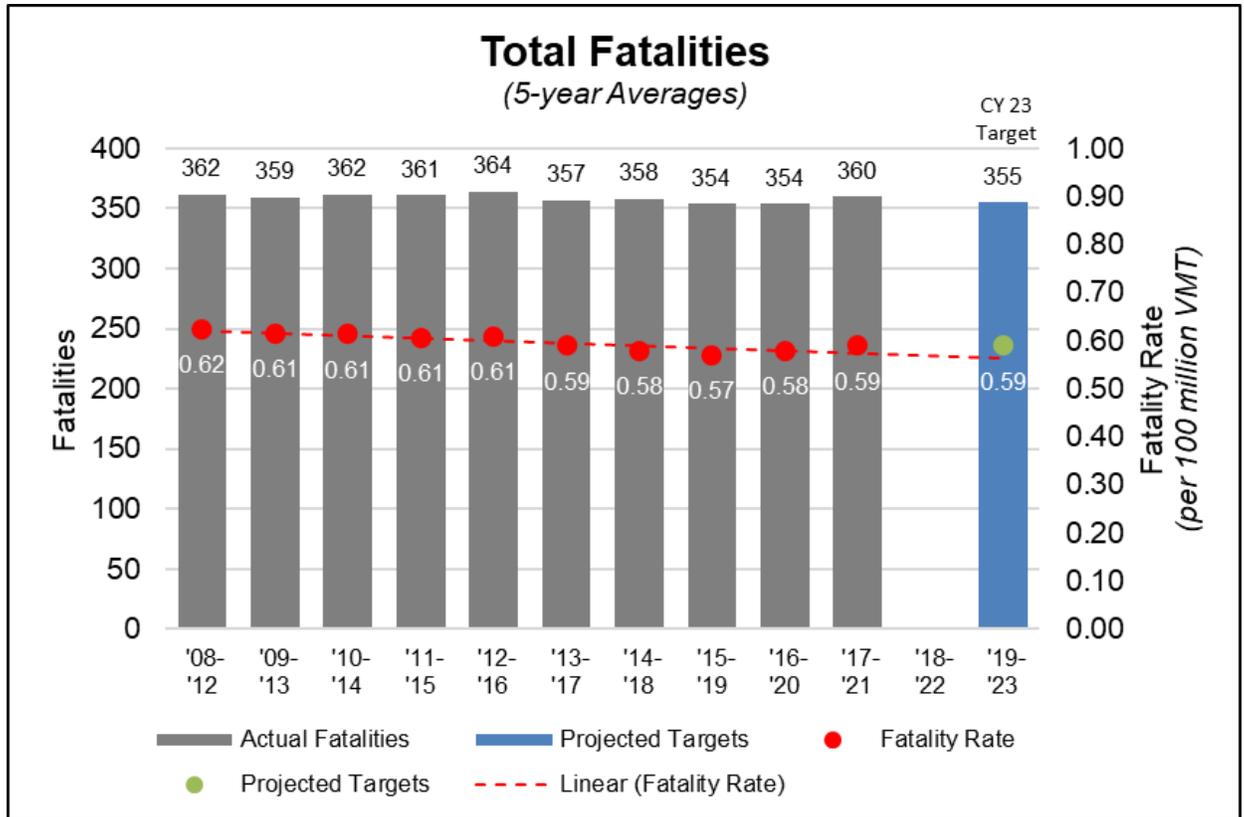


## APPENDIX A

### MASSDOT CY23 SAFETY PERFORMANCE MEASURE TARGETS (PM1)

**Total Fatalities:** Per Federal Highway Administration (FHWA) guidance, the calendar year (CY) 2023 target setting process began in April 2022 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 in 2021, 2020, and 2021 fatalities increased relative to previous years. Since the Infrastructure Investment and Jobs Act requires “performance targets to demonstrate constant or improved performance,” Massachusetts Department of Transportation (MassDOT) would be unable to use a pure trendline approach to set CY 2023 targets. Therefore, MassDOT developed targets for CY 2023 by projecting 2022 fatalities to be equal to three percent higher than the state’s lowest year in recent history (2019), and projecting 2023 fatalities to be equal to three percent lower than 2019. This methodology was developed to project a future downward trend based on the data available at the time. This analysis resulted in five-year average fatalities decreasing from 360 (2017–21) to 355 (2019–23), a reduction of 1.69 percent. Fatalities are expected to decrease based on MassDOT efforts in the areas of speed management and safe systems, among other safety strategies. As always, MassDOT’s overarching goal is zero deaths and this goal will be pursued by implementing Strategic Highway Safety Plan strategies.

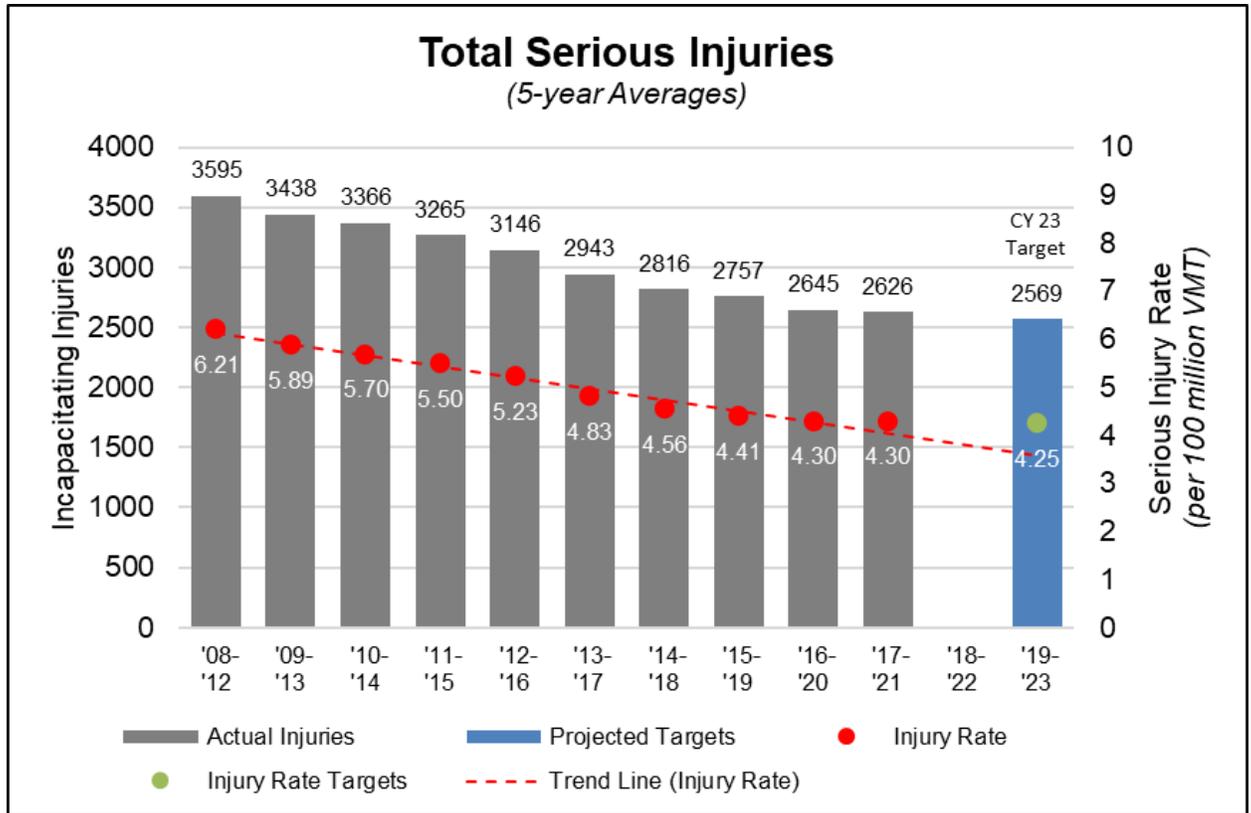
**Fatality Rate:** The fatality rate represents five-year average fatalities divided by five-year average VMTs. The COVID-19 pandemic greatly impacted VMT, causing fatality rates to spike in 2020 with significantly lower VMT and slightly higher fatalities, along with lingering impacts in 2021. The 2023 projection is now 0.59 fatalities per 100 million VMT (five-year average of 2019–23). The long-term goal is towards zero deaths, so the long-term fatality rate target is zero fatalities per 100 million VMTs.



Note: 2022 data is not complete and therefore was not used for target setting purposes. CY = calendar year. VMT = vehicle-miles traveled.

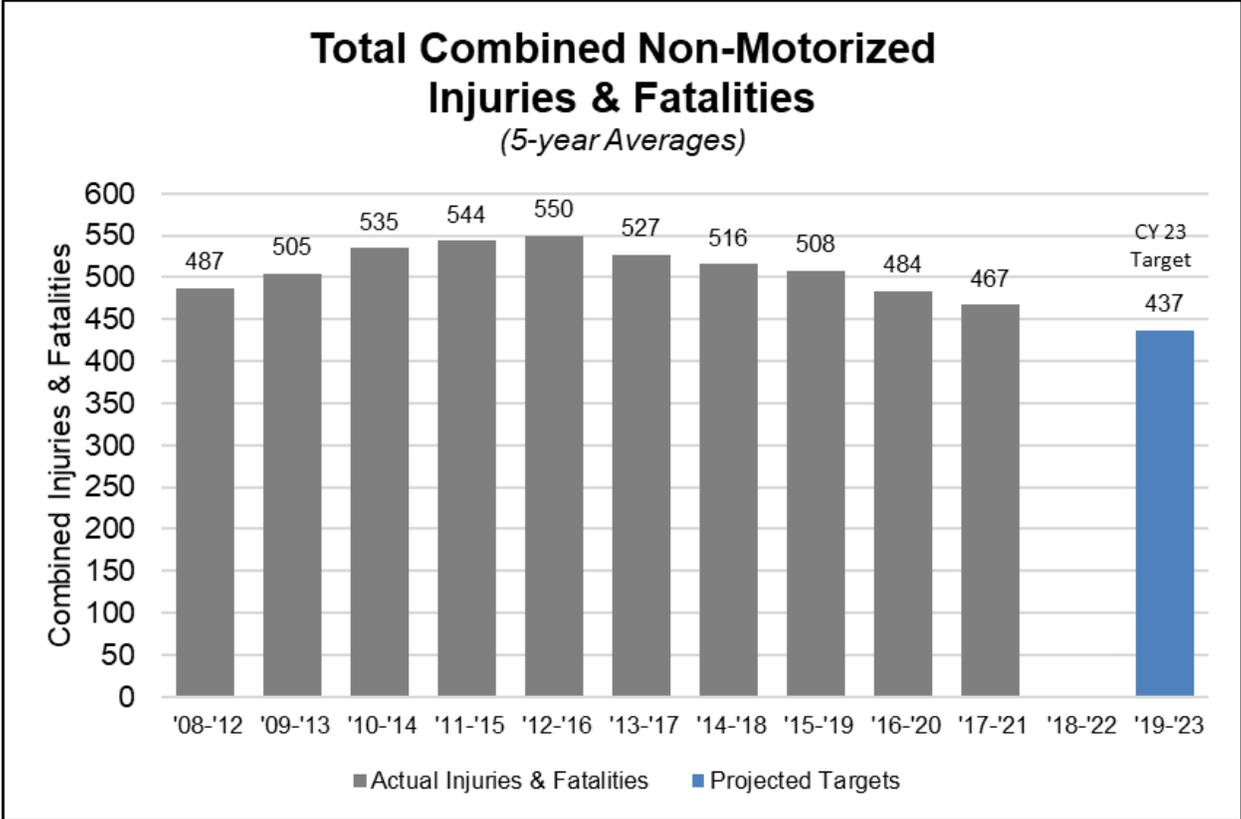
**Total Serious Injuries:** The 2020–22 serious injury data were not finalized in the statewide crash system at the time of target setting, so MassDOT used the information that was available as of April 2022. Due to higher rates of speeding caused by decreased VMT amid pandemic shutdowns in 2020 and the lingering impacts in 2021, 2020 and 2021 serious injuries increased relative to previous years. Therefore, MassDOT developed targets by projecting the 2022 annual serious injuries to be equal to the lowest year in recent history and the 2023 annual serious injuries to continue downward at a roughly 10 percent annual decrease, which reflects the average decreases in the years in which the state experienced reductions in serious traffic injuries. This approach resulted in a five-year average number of serious injuries dropping from 2,626 (2017–21) to 2,569 (2019–23), a reduction of 1.99 percent.

**Serious Injuries Rate:** Similar to the fatality rate, serious injury rates were greatly impacted due to COVID. Following the methods above, the projection is now 4.25 serious injuries per 100 million VMT (2019–23), down from 4.30 serious injuries per 100 million VMT (2017–21), a reduction of 1.57 percent. The long-term goal is towards zero deaths and serious injuries, so the long-term serious injury rate target is zero serious injuries per 100 million VMT.



Note: 2022 data is not complete and therefore was not used for target setting purposes. CY = calendar year. VMT = vehicle-miles traveled.

**Total Number of Nonmotorized Fatalities and Serious Injuries:** The number of nonmotorist fatalities and serious injuries decreased dramatically during the start of the pandemic in 2020, followed by an increase in 2021 and further movement in the wrong direction to start 2022. This fluctuation made tracking the trend in this area difficult. Therefore, nonmotorized fatalities and serious injuries for 2022 were set to be equal to three percent higher than our recent lowest year, and 2023 were set to be three percent lower than the recent lowest year. This results in a five-year average of nonmotorist fatalities and serious injuries going from 467 (2017–21) to 437 (2019–23), a reduction of 6.86 percent.



Note: 2022 data is not complete and therefore was not used for target setting purposes.  
 CY = calendar year.

**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 differ from what was reported in prior years.