NYS SAFETY TARGET SETTING METHODS – 2024 TARGETS

NYS Department of Transportation, Office of Traffic Safety

Overview

As per the Highway Safety Improvement Program final rule (23 CFR Part 490); States are required to set targets for five safety performance measures. The measures are the 5-year rolling averages for:

1. Number of Fatalities*
2. Rate of Fatalities (Fatalities / 100M VMT) *
3. Number of Serious Injuries*
4. Rate of Serious Injuries (Serious Injuries / 100M VMT)
5. Number of Non-motorized Fatalities and Non-motorized Serious Injuries

** Must be identical to the National Highway Traffic Safety Administration's Highway Safety Plan targets set annually by the Governors Traffic Safety Committee (GTSC).*

MPO Requirements

MPOs establish safety targets by either:

- ❑ Agreeing to plan and program projects that contribute toward the accomplishment of the State DOT target or
- ❑ Committing to a quantifiable safety target for the metropolitan planning area.

Timeline

- ❑ GTSC reports targets in the annual HSP on July 1 each year.
- ❑ NYSDOT establishes safety targets in the HSIP annual report on August 31, 2023.
- ❑ MPOs must agree to support state targets or establish their own within 180 days of the State establishing and reporting its safety targets. The MPO targets are due February 27, 2024.

NYSDOT's Target Setting Framework

1. Estimate existing trend
   - ❑ A linear trendline is used as the forecasting method. It is a clear, straightforward method recommended by FHWA.
   - ❑ The five-year moving average (current year plus four preceding years) is used as the data point for each year.
2. Adjust forecast for reasonability
3. Adjust forecast based on external and other factors where necessary

Step 1: Estimate existing trend

- ❑ Forecast 2024 using a 5-yr moving average linear trendline.
- ❑ Calculate a % change for 2020-2024 vs. 2017-2021.

Step 2: Adjust for reasonability

- ❑ Round the % change between 2020-2024 vs. 2017-2021.
- ❑ Apply a -0.50% cap.
  The cap allows for a target that forecasts a significant reduction but recognizes that large decreases are difficult to sustain year after year.

Step 3: Adjust trend for external and other factors

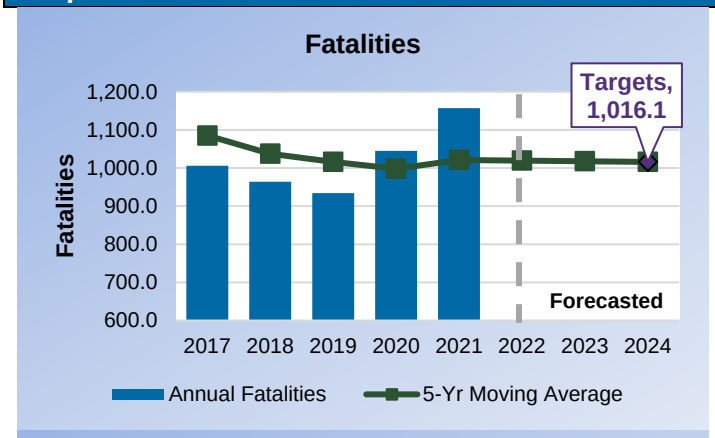
- ❑ VMT declined 13.0 percent between 2012 and 2021.
- ❑ Population increased 1.4 percent in the same timeframe.
- ❑ NYS has a host of safety programs designed to reduce fatal and serious injury crashes including the HSIP program, NYC's Vision Zero and the NYSDOT Pedestrian Safety Action Plan (PSAP).

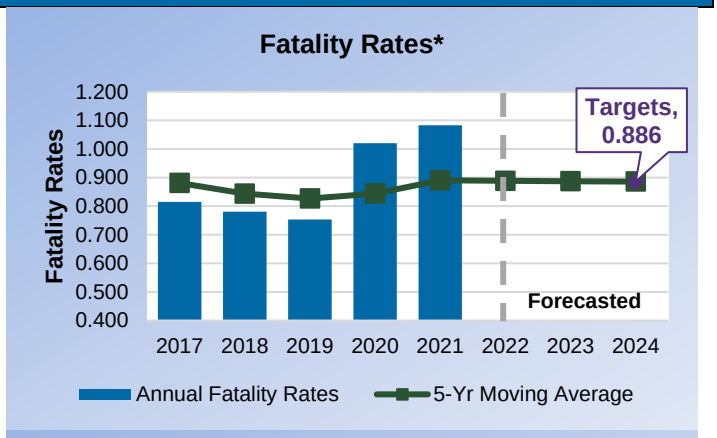
The safety program goal is to continue to reduce crashes despite the impacts of COVID-19. A conservative target of a 0.50% decrease between 2021 and 2024 was selected due to the impacts of COVID on crashes and vehicle miles of travel.

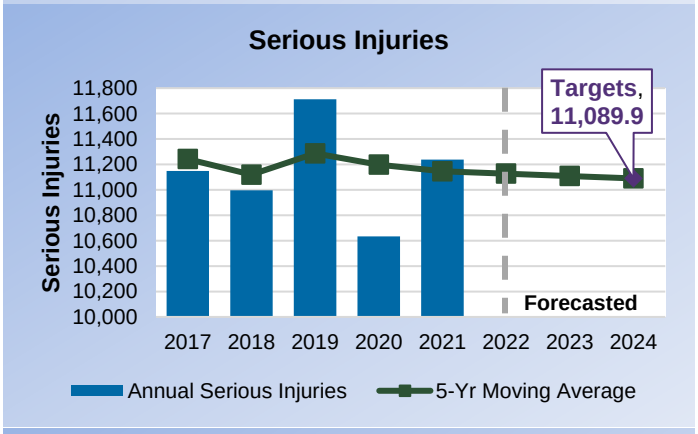
2024 Targets and Supporting Data

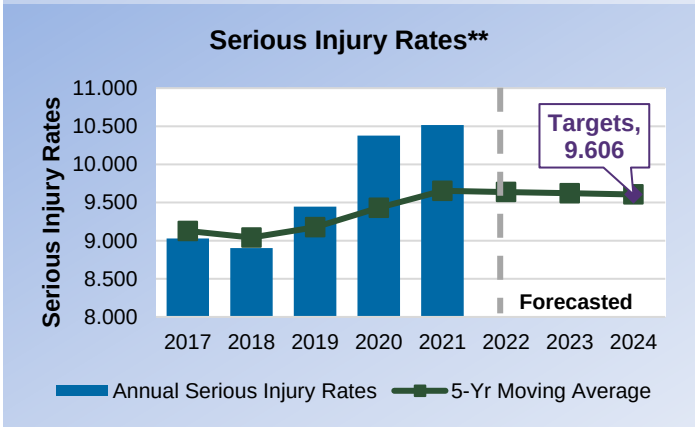
Measure	Last Annual and 5 yr. baseline		Step 1: Forecast Using 5-Yr Moving Average Trendline		Step 2: Round and apply 0.50% Cap	
	2021 Annual	2021 Baseline 2017-2021 avg.	2024 Forecast	% Change 2020-2024 vs. 2017-2021	Rounded / Capped Percent	NYSDOT Target 2024
Number of Fatalities	1,157	1,021.2	894.9	-12.4%	-0.50%	1,016.1
Fatality Rate	1.083	0.890	0.768	-13.7%	-0.50%	0.886
Number of Serious Injuries	11,238	11,145.6	11,034.1	-1.0%	-0.50%	11,089.9
Serious Injury Rate	10.516	9.654	9.370	-2.9%	-0.50%	9.606
Number of Non-Motorized Fatalities and Serious Injuries	2,663	2,641.6	2,502.9	-5.3%	-0.50%	2,628.4

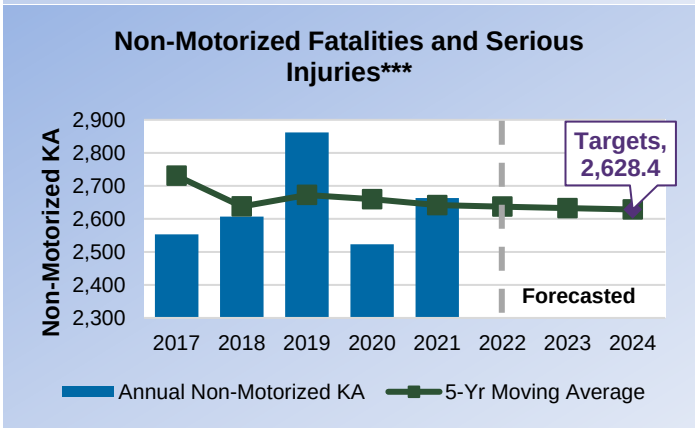
Graphs











Note: The 5-yr. trend was generated using the FORECAST function in Excel. The 5 yr. trend used the 5-yr. averages on 2013-2017, 2014-2018, 2015-2019, 2016-2020, and 2017-2021 data.

**Fatality Rate computed using VMT from FHWA Highway Statistics Series, Table VM-2*

***Serious Injury Rate computed using VMT from FHWA Highway Statistics Series, Table VM-2*

**** Based on combined total of Pedestrian Fatalities and Bicyclist and Other Cyclist Fatalities from FARS.*