



COMMONWEALTH *of* VIRGINIA
Office of the
SECRETARY *of* TRANSPORTATION

Transportation Safety Performance 2027 Safety Measures

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Federal Target Setting

- This presentation is to update the Board on the federal requirements for targets setting and performance reporting
- We will present the requirements and methods used to set Virginia's highway safety performance targets for calendar year 2027
- The CTB will be asked to vote on the targets at the June meeting

Federal Target Setting

- Background on target setting requirements
- Statewide trends of safety performance
- Potential federal target setting approaches
- Results and recommendations from each approach
- Proposed 2027 federal safety targets
- Next steps

Performance Management Background

- MAP-21 Federal Law – establish performance targets for:
 - Safety
 - Infrastructure Condition (Bridges and Pavement)
 - System Performance
 - Highway and Freight Reliability
 - Traffic Congestion
 - Emission Reduction
- Code of Virginia § 2.2-229 – Board to establish performance targets for surface transportation
- 2026 schedule for federal targets CTB approvals:
 - Safety in June
 - Infrastructure Condition and System Performance in September

Background

Safety Performance Management Requirements

- Federal law requires performance targets for safety (5 measures)
- Safety targets must be set annually for the next calendar year
- VDOT and Department of Motor Vehicles' (DMV) Highway Safety Office (HSO) coordinate on 3 of the 5 performance measures
 - DMV must report targets to NHTSA by June 30
 - VDOT must report targets to FHWA by August 31

NHTSA - National Highway Traffic Safety Administration
FHWA - Federal Highway Administration

Background

Safety Performance Management Federal Measures

- **Number of fatalities*** - count of persons who died at scene or within 30 days
- **Rate of fatalities*** - count of fatalities per 100M vehicle miles traveled
- **Number of serious injuries*** - count of persons with suspected serious injury, typically taken to hospital
- **Rate of serious injuries** - count of serious injuries per 100M vehicles miles traveled
- **Number of non-motorized fatalities and serious injuries** – count of bicyclists and pedestrians who died or had suspected serious injury

* Three federal measures requiring coordination and consistency with the DMV Highway Safety Office

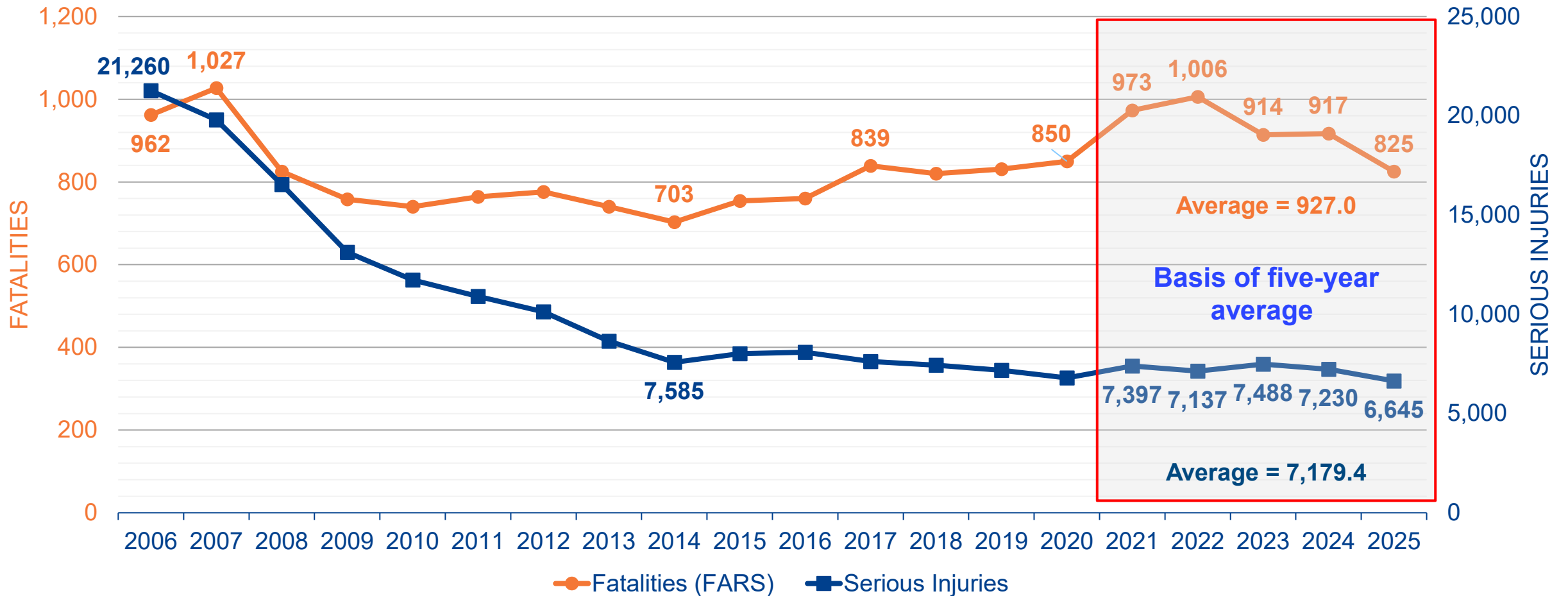
Background

New Federal Target Setting Requirements

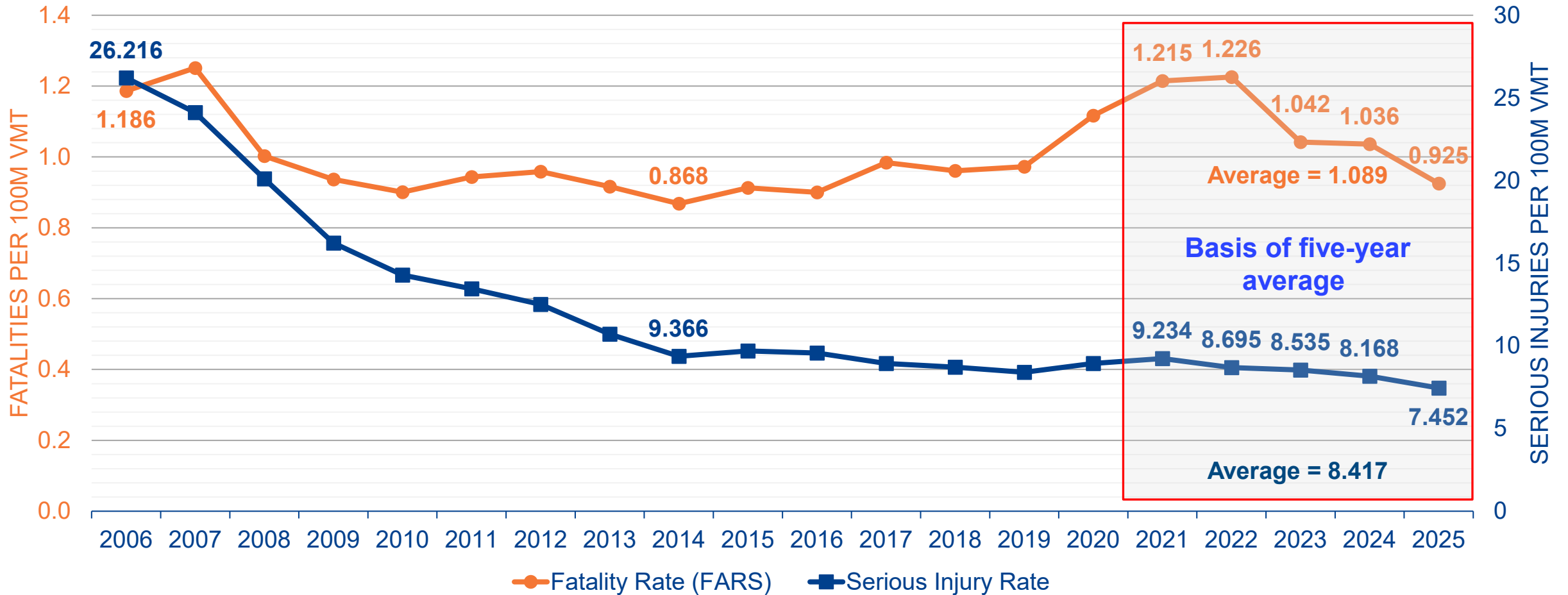
- Annual federal reporting for DMV and VDOT requires submission of annual and calculated five-year average targets
- The 2021 BIL (IIJA) requires that States set safety targets that demonstrate **level or improved performance** for the three common measures (fatalities, fatality rate, and serious injuries)
 - The 2027 five-year average target for each measure, when averaged with the preceding four years, must be level or improved when compared to the most recent five-year average (baseline)
 - Baseline = the average of the actual performance values from 2021-2025
 - 2027 five-year average target = three years of actual performance values from 2023-2025 along with projections for 2026 and the proposed 2027 annual target

BIL – Bipartisan Infrastructure Law
IIJA – Infrastructure Investment and Jobs Act

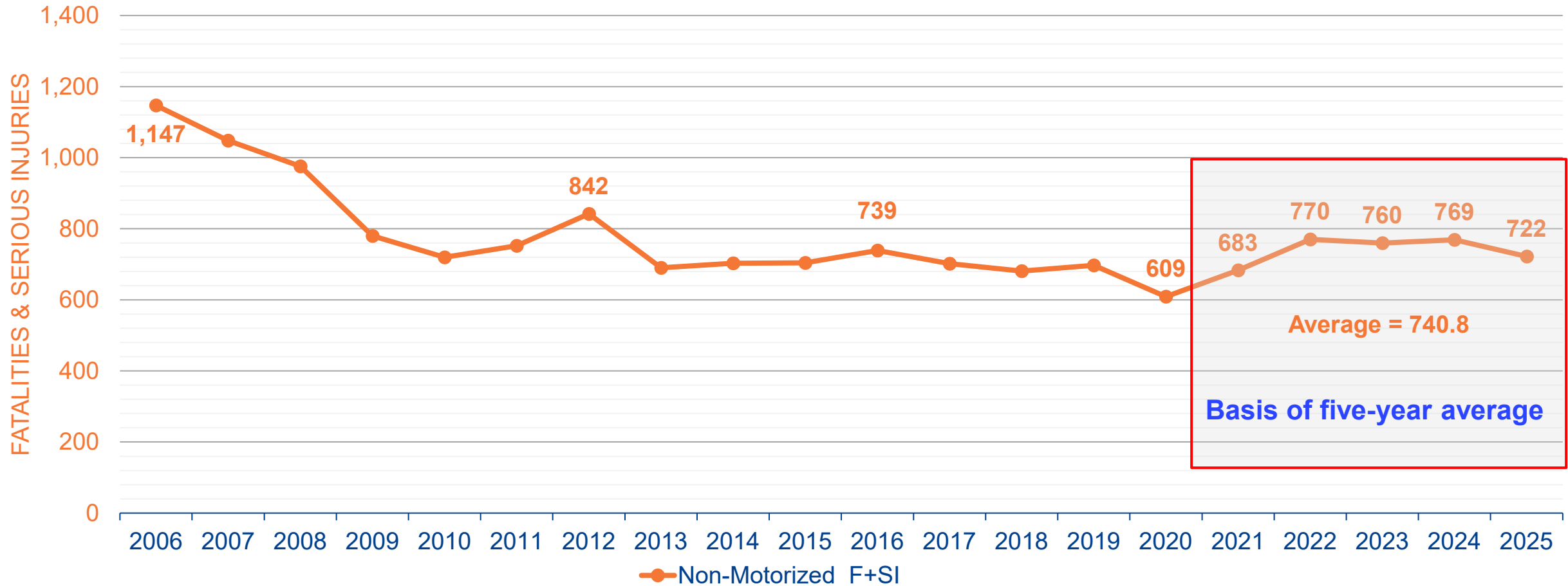
Statewide Trends of Annual Fatalities and Serious Injuries



Statewide Trends of Annual Fatality and Serious Injury Rates



Statewide Trends of Non-Motorized Annual Fatalities and Serious Injuries



Past Safety Measure Performance and Adopted Targets

Measure	2025 Target Values*	2025 Actual Values	2026 Target Values*
Fatalities	819	825	882
Fatality Rate	0.894	0.925	1.00
Serious Injuries	6,829	6,645	6,424
Serious Injury Rate	7.457	7.452	7.286
Non-Motorized Fatalities + Serious Injuries	619	722	604

* CTB adopted targets to provide level or improved 5-year average values to submit to NHTSA and FHWA

Potential 2027 Federal Target Setting Approaches

- The following approaches were explored to determine preferred method to result in level or improved performance (as required by NHTSA):
 1. Predictions from the analytical model used for previous year targets
 2. Projected values based on recent trends
- More information is provided for both approaches on the following slides

Approach 1: Analytical Model Prediction

- Calculate the future target year fatalities and serious injuries counts using an analytical model that considers external influencing factors and has been adjusted annually
- Determine the expected annual reductions of SMART SCALE and VHSIP projects that were recently or soon to be completed and subtract from the model predictions

Model Prediction – Project Safety Benefits = Expected Performance







- Calculate the two “rate” measures based on the expected performance for count measures and the projected VMT growth

Approach 2: Recent Trend Projections

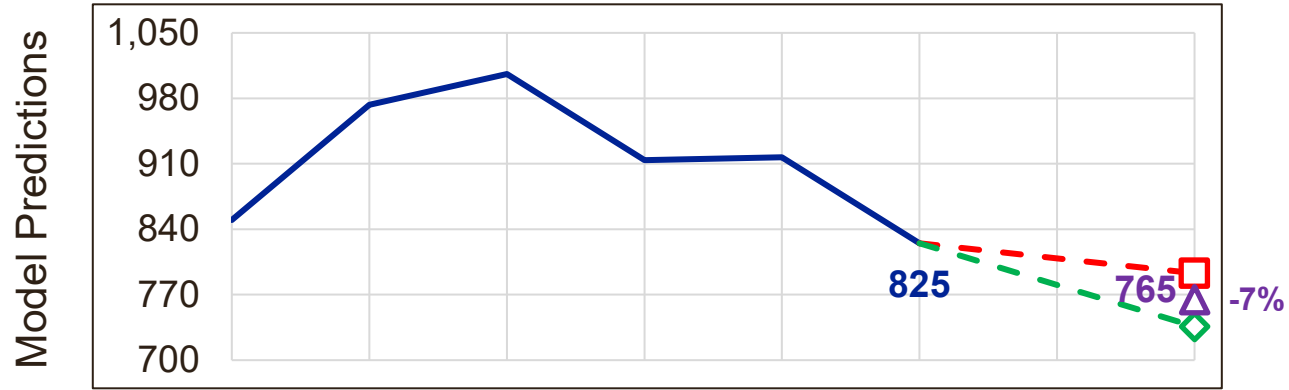
Use safety measure trend projections to calculate 2027 targets:

- Use the 2026 projected count measure based on year-to-date values (through March)
- Set 2027 count targets based on annual average reductions between 2024 and 2026
- Use 2027 count targets to calculate rate measures with projected 1% growth in VMT each year

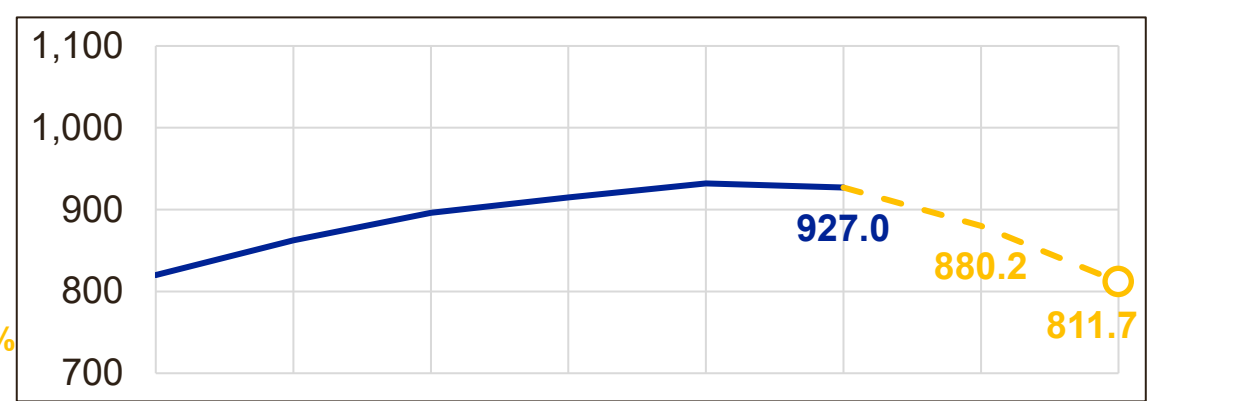
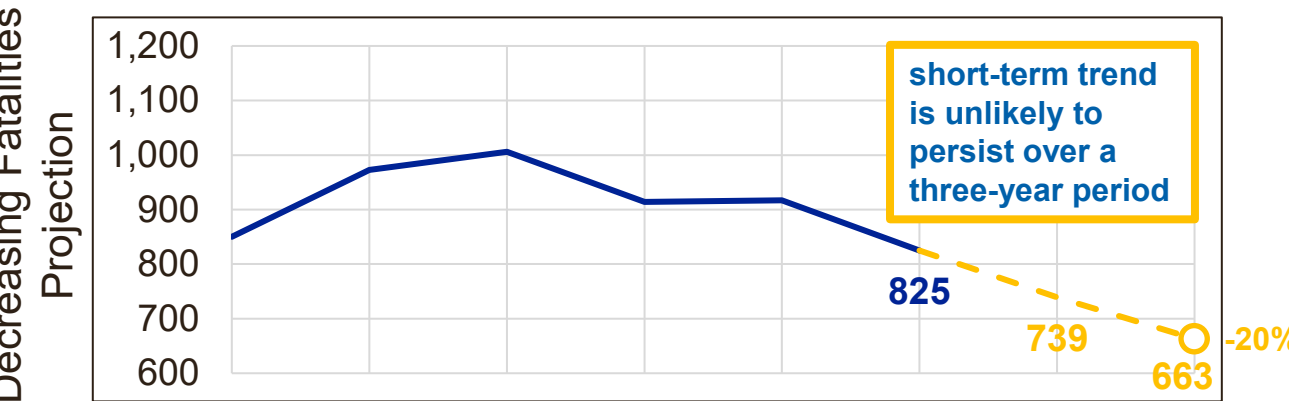
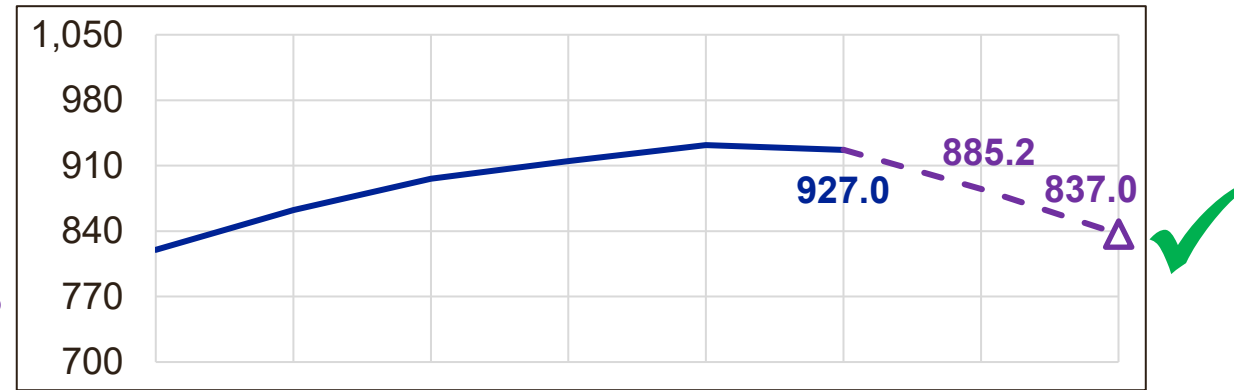
Results – Fatalities

-  Historic Data
 -  Model Prediction – High
 -  Model Prediction – Low
 -  Model Prediction – Midpoint
 -  Decreasing Fatalities Projection 2025-2027
-  Recommended Approach







Annual



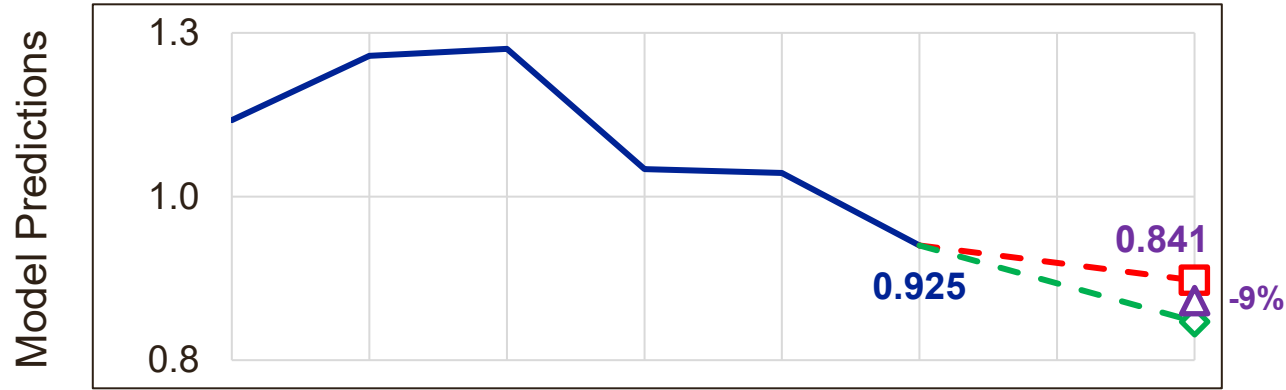
Five-Year Averages



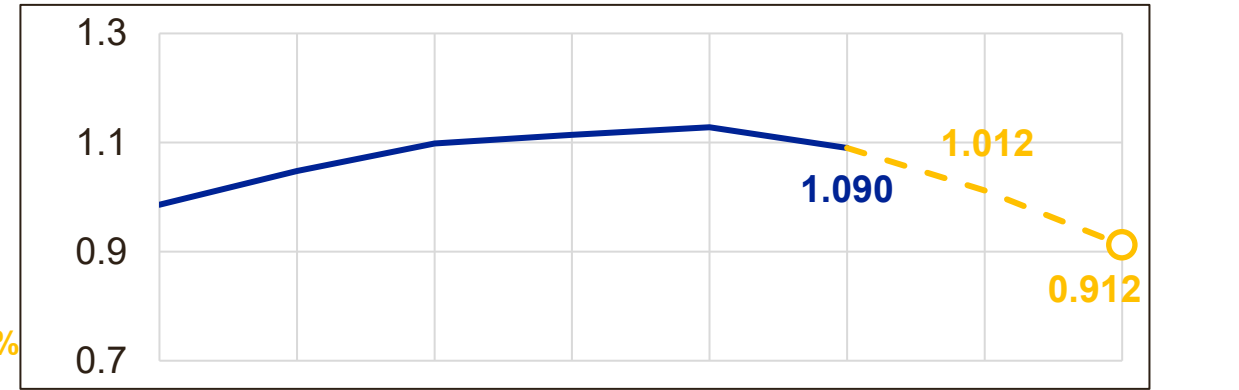
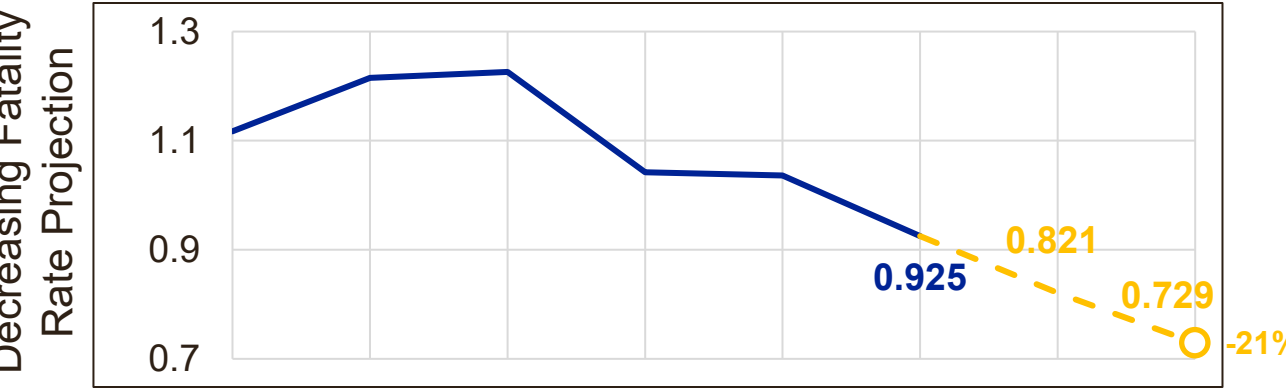
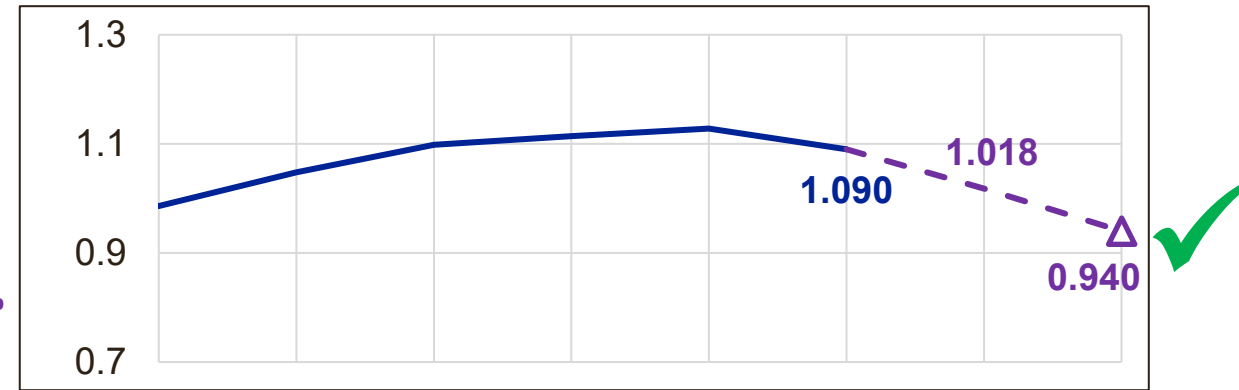
Results – Fatality Rate

-  Historic Data
 -  Model Prediction – High
 -  Model Prediction – Low
 -  Model Prediction – Midpoint
 -  Decreasing Fatalities Projection 2025-2027
-  Recommended Approach







Annual



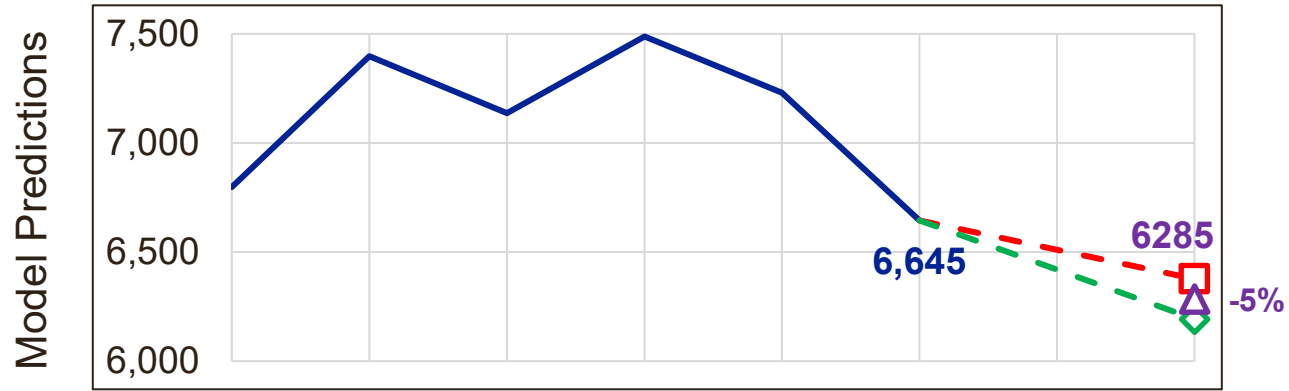
Five-Year Averages



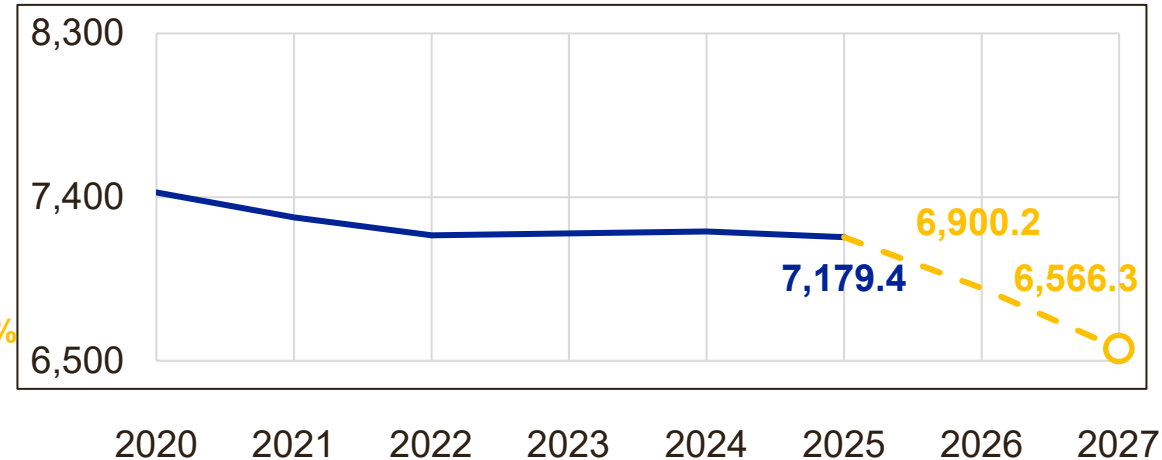
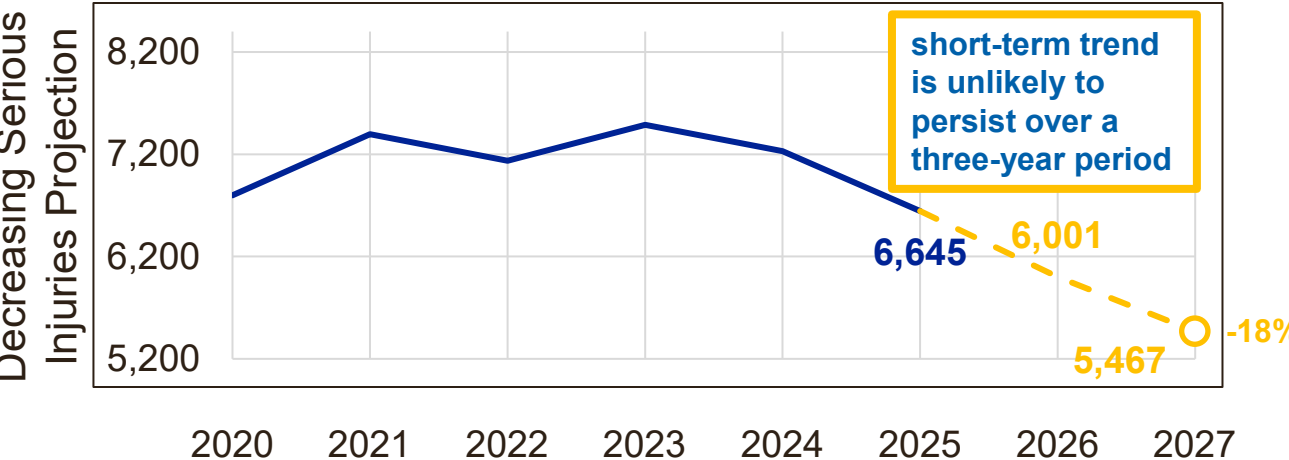
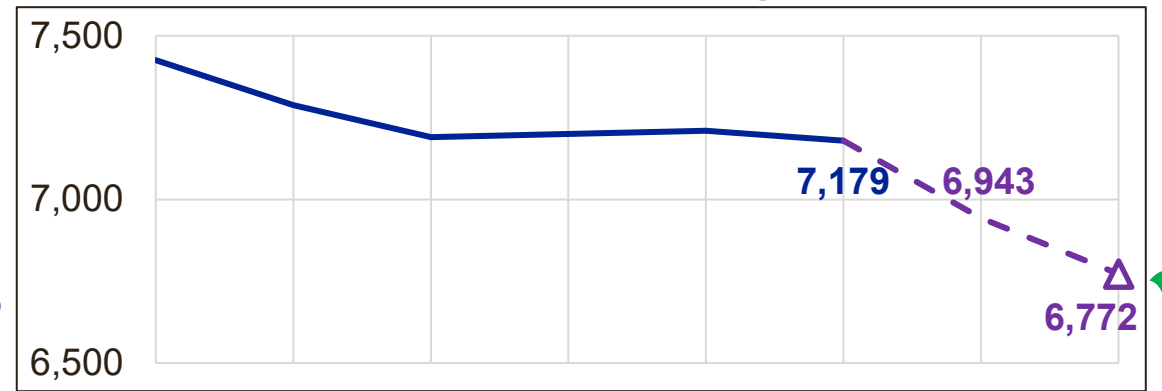
Results – Serious Injuries

-  Historic Data
 -  Model Prediction – High
 -  Model Prediction – Low
 -  Model Prediction – Midpoint
 -  Decreasing Serious Injuries Projection 2025-2027
-  Recommended Approach







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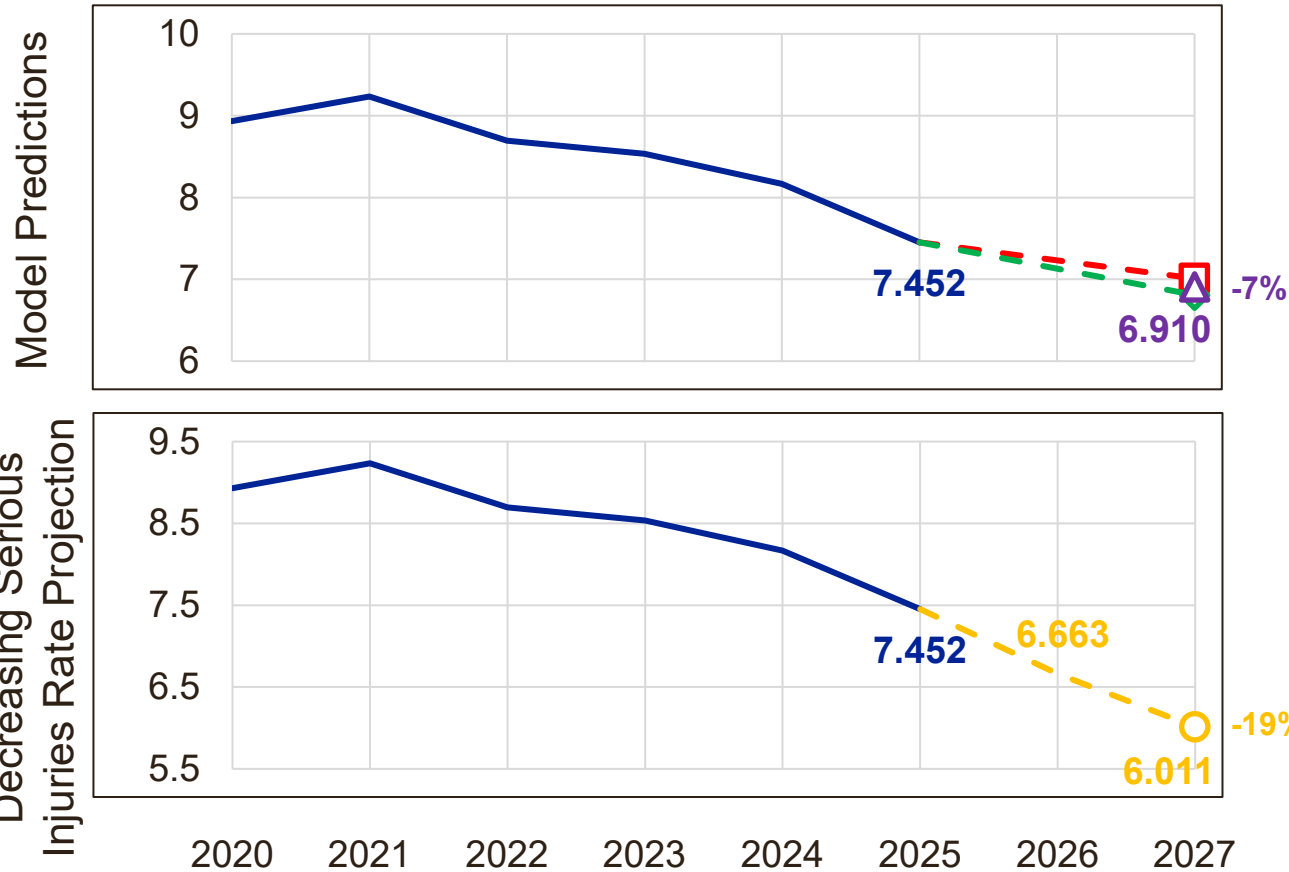
Five-Year Averages



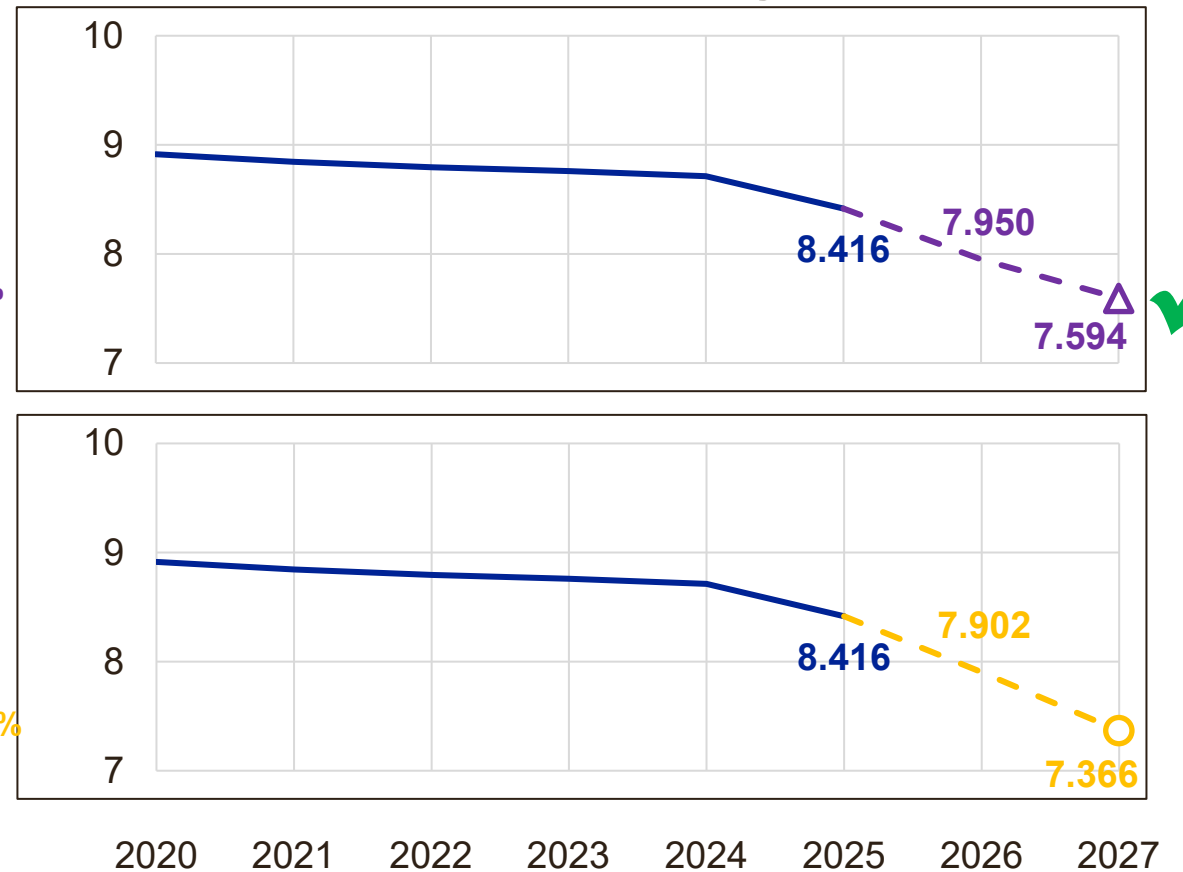
Results – Serious Injury Rate

-  Historic Data
 -  Model Prediction – High
 -  Model Prediction – Low
 -  Model Prediction – Midpoint
 -  Decreasing Serious Injuries Projection 2025-2027
-  Recommended Approach

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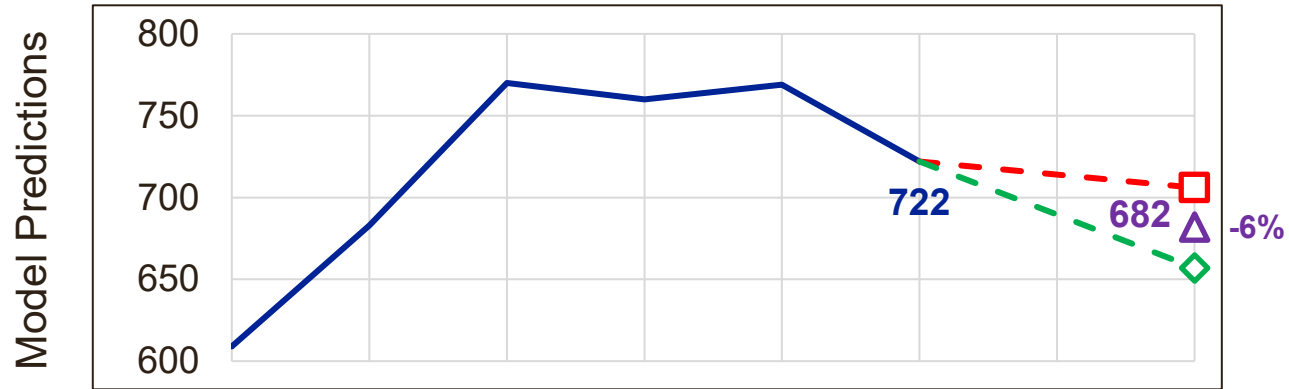
Five-Year Averages



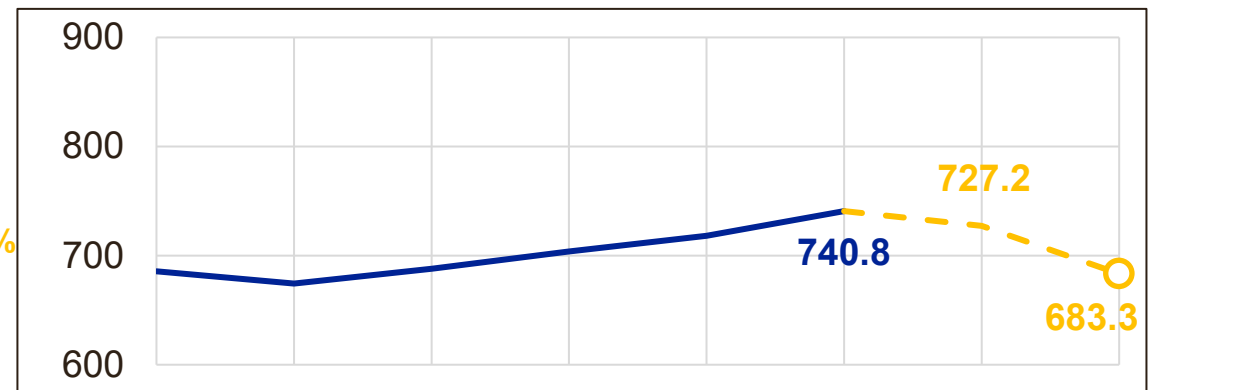
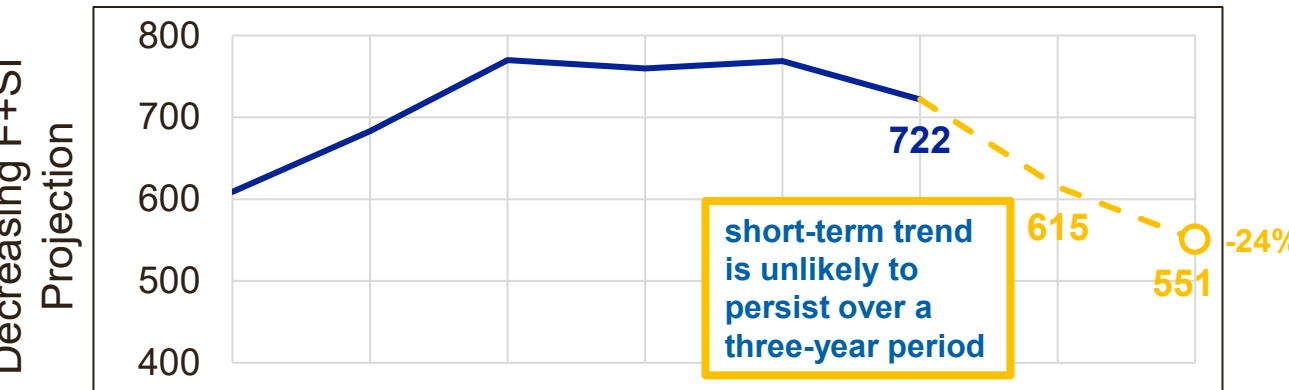
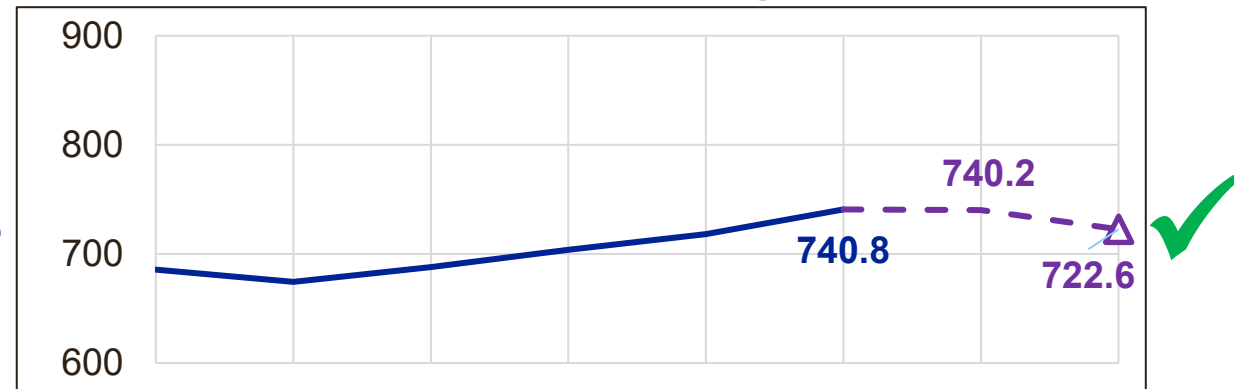
Results – Non-Motorized Fatalities and Serious Injuries

-  Historic Data
 -  Model Prediction – High
 -  Model Prediction – Low
 -  Model Prediction – Midpoint
 -  Decreasing N-M F + SI Projection 2025-2027
-  Recommended Approach

Annual



Five-Year Averages



Proposed 2027 Annual Federal Safety Targets

- Propose safety performance targets for 2027 based on the approach best meeting the requirement to achieve level or improving five-year averages from the baseline conditions.

Measure	2025 Actual Values	2026 Target Values	2026 Projection Values*	Proposed 2027 Target Values	Percent Change from '25	Federal 5-Yr Average Approach
Fatalities*	825	882	739	765	-7%	Improving
Fatality Rate**	0.925	1.00	0.821	0.841	-9%	Improving
Serious Injuries*	6,645	6,424	6,001	6,285	-5%	Improving
Serious Injury Rate**	7.452	7.286	6.663	6.910	-7%	Improving
Non-Motorized Fatalities + Serious Injuries	722	604	615	682	-6%	Improving

* Based on available 2026 year to date count data and the average proportion of the same period for the last three years.

** 2026 projected rates based on the count measures and projected VMT growth of +1% from 2025.

Next Steps

- CTB adoption of proposed federal safety targets at June meeting



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Thank you.



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