



# Transportation Performance Management (TPM) - Traffic safety performance management

The U.S. Department of Transportation has issued two interrelated final rules governing traffic safety and safety-oriented performance management which became effective on April 14, 2016. These two rules are referred to in this folio as

- Rule #1 - Safety Performance Measures rule; (23 CFR §490)
- Rule #2 - Highway Safety Improvement Program (HSIP) rule; (23 CFR §924)

Both final rules relate to highway safety, the primary objective being to significantly reduce fatal and serious-injury crashes on all public roads. The Safety Performance Measures rule (Rule #1) also includes the goal of reducing traffic fatalities of and serious injuries to people using non-motorized transportation modes, namely bicyclists and pedestrians.

## Safety Performance Reporting

Rule #1 specifies the performance management measures for safety, and defines the target setting process for State DOTs and Metropolitan Planning Organizations (MPOs). Per Rule #2, State DOTs will establish and report their safety targets and progress toward these targets in an annual Highway Safety Improvement Program (HSIP) report.

## Summary of required performance measures

Rule #1 requires all State DOTs to report targets and performance with respect to the following safety performance measures:

- No. 1** - Number of fatalities on all public roads (due June 30)
- No. 2** - Number of fatalities per 100 million vehicle miles traveled (VMT) on all public roads (due June 30)
- No. 3** - Number of serious injuries on all public roads (due June 30)
- No. 4** - Number of serious injuries per 100 million VMT on all public roads (due Aug. 31)
- No. 5** - Number of non-motorist (e.g. bicyclists and pedestrians) fatalities and serious injuries on all public roads (due Aug. 31)

In general, MPOs establish targets by either agreeing to plan and program projects so that they contribute toward the accomplishment of the State DOT HSIP target, or by committing to a quantifiable target for their Metropolitan Planning Area. MPOs will report annually to their State DOT in a manner agreed upon and documented by both parties. MPOs would report safety performance in the Metropolitan Transportation Plan, as provided in U.S. Code 23 Section 134(i)(2)(C).

In Washington state, the MPOs and WSDOT worked together to jointly develop a collaborative approach in support of data, process, and target-setting decision making. This Target Setting Framework Group has agreed WSDOT will take the lead in establishing safety targets, which MPOs will adopt.

### About this folio:

See inside for the official statewide safety targets for 2022, a description of the target setting approach for the five required safety performance measures in Washington state, and how this approach to target setting relates to the stipulations of TPM rulemaking.

**Optional targets:** States have the option to set additional targets for the performance measures for any number and combination of urbanized area boundaries, as well as for a single non-urbanized area. If optional targets are set, they will not be assessed when determining significant progress, and states will not incur penalties if they fail to show progress.

**Overlapping measures/targets in the Highway Safety Plan:** Targets for Measures No. 1-3 must also be reported to the National Highway Traffic Safety Administration by July 1 of each year. They must be numerically identical targets to those reported for TPM compliance on August 31 as part of the HSIP. See the Timelines section inside for details.

**TPM Special Rules:** Numeric targets are not required, but states must report performance in these two categories, and show improvement compared to baseline.

- Fatality rate on High Risk Rural Roads (due Aug. 31)
- Number of fatalities and serious injuries of drivers and pedestrians age 65 and older on all public roads (due Aug. 31)

## WSDOT's target adoption

For the 2022 annual target setting process, WSDOT and its partners have once again adopted the Target Zero target setting approach for TPM where targets are set to achieve zero fatal and serious crashes by 2030 (see table below).

## FHWA's "Significant Progress" measurement

### TPM Safety Target Setting

Five-year rolling averages; number of persons, or number of persons per 100 million VMT

	2020 Baseline	2022 Official Targets
		Statewide TPM Target (Target Zero)
No. 1 - Fatalities	546.6	437.3
No. 2 - Fatality rate	0.913	0.730
No. 3 - Serious injuries	2,273.8	1,819.0
No. 4 - Serious injury rate	3.802	3.042
No. 5 - Non-motorist fatalities & serious injuries	581.8	464.6

Data sources: Washington State Traffic Safety Commission - Fatality Analysis Reporting System; Washington State Department of Transportation - Transportation Data, GIS & Modeling Office.

At the end of each reporting period, FHWA will determine whether a state has made overall "significant progress" toward achieving its safety targets. The penalties listed on the back page of this folio will apply to the State DOT if FHWA deems it has not made that progress.

To make significant progress overall, a state must achieve at least four out of the five targets above. For each measure, there are two ways this can be done. For example, the value of the 5-year rolling average from 2015 to 2019 had to be:

- At or below the target set in 2017 for the 2019 year, OR
- At or below the 2018 (baseline) level. The FHWA included this provision to avoid punishing aspirational target setting.

If either of these conditions is met, the state has made significant progress for that individual measure. It must do so in any four of the five measures to have made significant progress overall and avoid the penalty provisions.

## WSDOT uses Target Zero to reduce traffic fatalities and serious injuries

Per TPM, states are required to develop a Strategic Highway Safety Plan (SHSP). Washington state's plan is called Target Zero, which is used as the foundation for the target setting process (<http://www.targetzero.com>).

WSDOT crashes decreased overall from 2004 to 2013 in all areas with the exception of crashes involving those who bike and walk, since then fatal and serious crashes have generally increased due to traffic and economic growth in the state. Because of this, WSDOT is not likely to achieve significant progress toward these targets. WSDOT and its partners concur that Target Zero should be consistently used to move Washington forward with fatality and serious injury reductions. WSDOT will continue to monitor investment levels, changes in total crashes and injuries, and select crash countermeasures that it believes will provide a high return on investment.

The general process for generating trend and target information as prescribed by Rule #1 proceeds as follows:

- Calculate the annual number of fatalities, serious injuries, and Vehicle Miles Traveled (VMT).
- A 5-year rolling average is calculated for each performance measure. For example, in the graph for Measure No. 1, data from 2006-2010 creates the value of the rolling average in 2010—535.4 fatalities. Data from 2007-2011 creates the next 5-year rolling average in 2011.
- The rolling 5-year average value for 2019 will be set as the baseline performance (annual average of 2015 through 2019).

States are then free to develop targets using methods determined by the state. In Target Zero and Washington state's particular approach to target setting, the method to establish targets continues:

- A straight line will be drawn from the baseline value to a zero value in 2030. (The line is redrawn with each new year of data.)
- The value of the Target Zero trendline in 2022 becomes the target for the performance measure in 2022 as shown on the following page.

## WSDOT submits State 2022 Highway Safety Improvement Program Report to FHWA

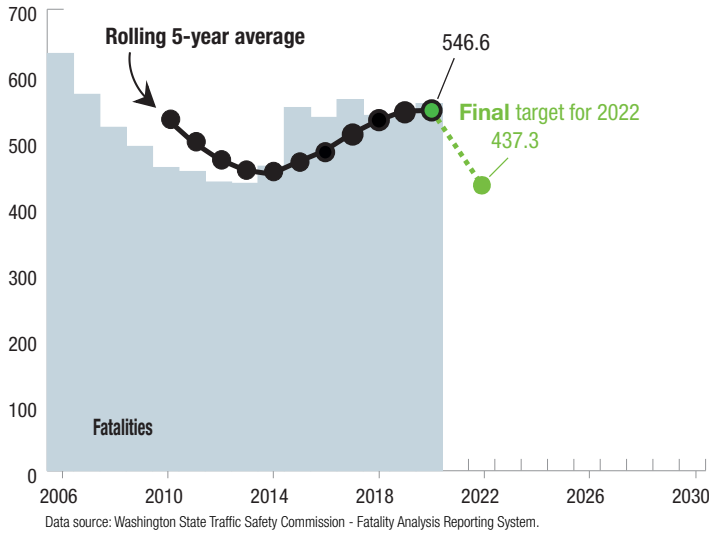
WSDOT and WTSC updated all five statewide targets for the upcoming year of 2022. These targets were submitted to FHWA as part of the 2021 Highway Safety Improvement Program (HSIP) report which was approved by FHWA on September 30, 2021.

MPOs have until February 28, 2022 (180 days after the HSIP reporting deadline) to either agree to plan and program projects so they contribute toward the accomplishment of the State DOT HSIP targets, or commit to a quantifiable target for their Metropolitan Planning Area. In Washington state, MPOs have agreed to adopt the WSDOT targets.

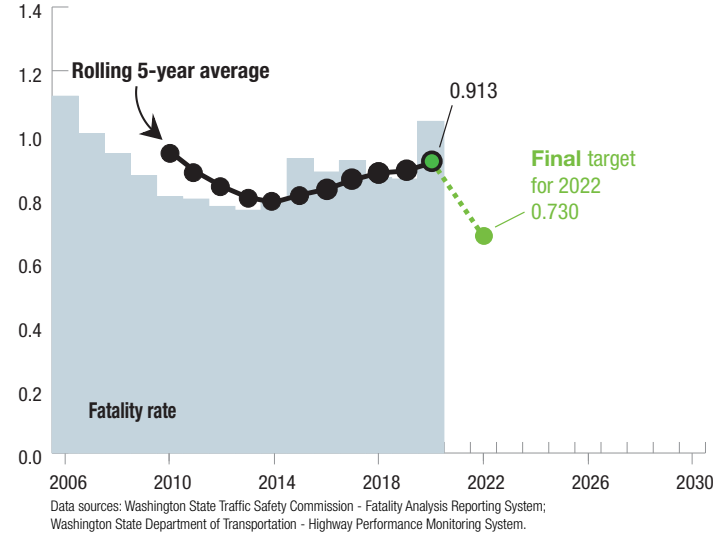
## About these graphs

These graphs display the final 2022 targets for each of the five TPM safety performance measures, and show targets developed by WSDOT in coordination with Washington State Traffic Safety Commission.

**Measure No. 1 - Fatalities**  
2006 through 2030

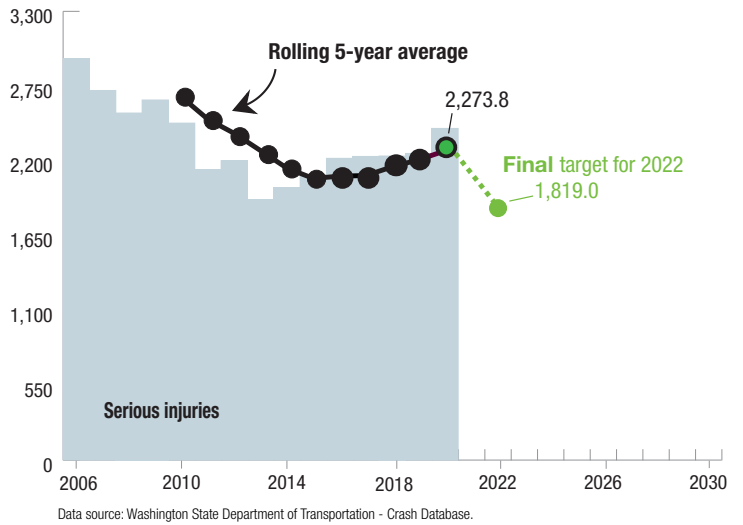


**Measure No. 2 - Fatality rate per million VMT**  
2006 through 2030

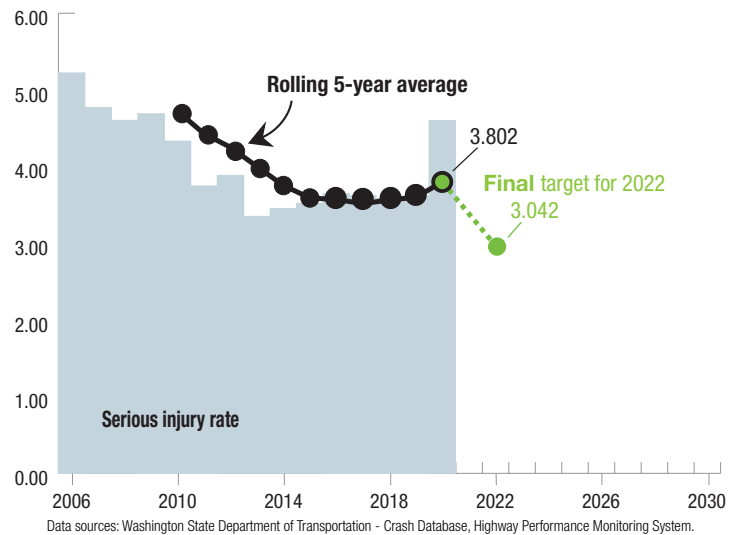


Notes for all graphics: Fatality data for 2019 is finalized as of January 2021, serious injury count for 2019 is as of August 2021. All data for 2020 is preliminary as of August 2021. Under 23 U.S. Code § 148 and 23 U.S. Code § 409, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a federal or state court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

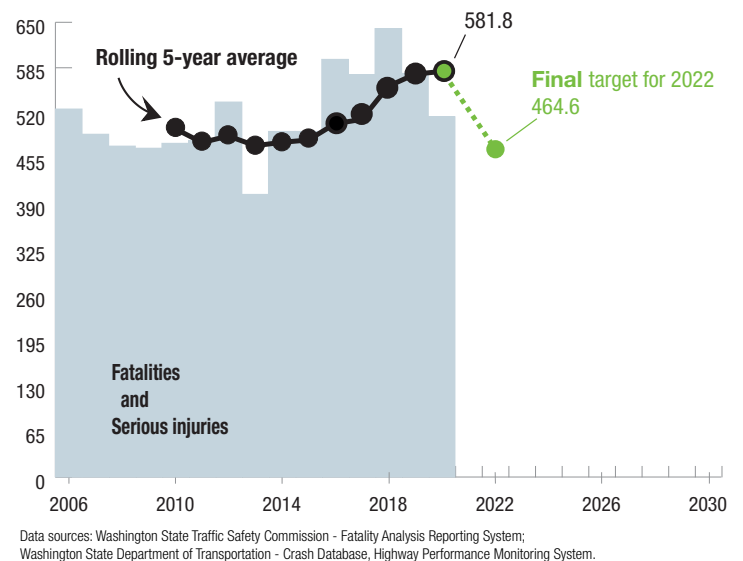
**Measure No. 3 - Serious injuries**  
2006 through 2030



**Measure No. 4 - Serious injury rate per 100 million VMT**  
2006 through 2030



**Measure No. 5 - Non-motorist fatalities and serious injuries**  
2006 through 2030



## Penalties

As described in U.S. Code 23 Section 148(i), for the Final Safety Performance Rule (Rule #1), if the U.S. Department of Transportation (U.S. DOT) Secretary will determine if a state has not met or made significant progress toward achieving its safety performance targets by the date that is two years after the establishment of its targets, the State DOT would:

- Dedicate its obligation authority equal to the apportionment for HSIP to the state for the prior year to highway safety improvement projects until the U.S. DOT Secretary determines that the state has made significant progress or met the targets; and
- Annually submit to U.S. DOT a safety implementation plan until the U.S. DOT Secretary determines that the state has made significant progress or met the targets.

See WSDOT's [TPM Funding and Performance Penalties](#) folio for full details, including special rule penalties.

## Data used for target setting

- Number of traffic fatalities for all public roads
- Rate of traffic fatalities per 100 million Vehicle Miles Traveled (VMT) for all public roads<sup>1</sup>
- Number of serious traffic injuries for all public roads
- Rate of serious traffic injuries per 100 million VMT for all public roads<sup>1</sup>
- Bicyclist/Pedestrian fatalities and serious injuries for all public roads<sup>2</sup>
- Fatality and serious injury data for drivers and pedestrians age 65 and older<sup>3</sup>
- Rate of traffic fatalities for all High Risk Rural Roads (HRRR)<sup>1 3</sup>

Notes: Crash data is available for all Washington public roads and annual summaries are also available by county. WSDOT entered into a data sharing agreement with the Washington Traffic Safety Commission to incorporate the fatality data necessary for target setting. **1** The Federal Highway Administration (FHWA) requires the use of Highway Performance Monitoring System (HPMS) data for any performance metric involving estimated vehicle miles travelled. **2** This data is required as part of the Fiscal Year 2015 Omnibus Appropriations Bill. **3** This data satisfies a MAP-21 special rule reported at the statewide level to FHWA, that may be of interest to MPOs.

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## What is the current distribution of HSIP funds?

**Safety:** Federal Highway Safety Improvement Program (HSIP) funding provided to the state is split based upon fatal and serious injury crash data on state and local facilities. The HSIP funds are used to implement engineering countermeasures which reduce fatal and serious injury crashes. For the Federal Fiscal Year 2022 reporting period, it is anticipated that the State of Washington will receive approximately \$52.1 million for the HSIP program. Of this, approximately \$25.6 million will be allocated to state roadways and \$26.5 million to local roadways. The HSIP is one component of WSDOT's total annual expenditure on safety projects.

## Data collection

- TPM requires fatality data from the Washington State Traffic Safety Commission's (WTSC) Fatality Analysis Reporting System (FARS) and serious injury data from WSDOT's system.
- State law enforcement officers record crash events in The Washington State Police Traffic Collision Report. This report is the sole source for all WSDOT serious injury data and most FARS data, with few exceptions.
- TPM requires Vehicle Miles Traveled (VMT) data from WSDOT's Highway Performance Monitoring System. Along with the number of fatalities or serious injuries, VMT is used to calculate the rate of fatalities or serious injuries per 100 million VMT.
- WSDOT's serious injury data and FARS fatality data for the previous calendar year is preliminarily available in about February and April of the following year, respectively. WSDOT's VMT data is available about June of the following calendar year.

## For more information

**TPM safety requirements information:** John Milton, Director of Transportation Safety and Systems Analysis (360) 704-6363 or [Milton.J@wsdot.wa.gov](mailto:Milton.J@wsdot.wa.gov).

**Traffic crash fatal and serious injury data:** Mike Bernard at (360) 570-2454, [BernarM@wsdot.wa.gov](mailto:BernarM@wsdot.wa.gov). Data is protected by U.S. Code 23 §148 and §409, but can be requested.