



Moving Ahead for Progress in the 21st Century Act - Final rules on 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 July 1/Aug. 31)
- No. 2 - Number of fatalities per 100 million vehicle miles traveled (VMT) on all public roads** (due July 1/Aug. 31)
- No. 3 - Number of serious injuries on all public roads** (due July 1/Aug. 31)
- No. 4 - Number of serious injuries per 100 million VMT on all public roads** (due Aug. 31)
- No. 5 - Number of non-motorist fatalities and serious injuries on all public roads (e.g. bicyclists and pedestrians)** (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 2019, 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 MAP-21 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 MAP-21 compliance on August 31 as part of the HSIP. See the Timelines section inside for details.*

MAP-21 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)

FHWA provides flexibility for safety target setting under MAP-21

State DOTs and MPOs have flexibility in setting numeric targets for the five performance measures identified in Rule #1. It does place stipulations on certain aspects of the process, however. It requires that states and MPOs report their performance metrics and targets for each of five performance measures as rolling 5-year averages. Per Rule #2, states are also required to develop a Strategic Highway Safety Plan (SHSP). Washington state's plan is called Target Zero.

Summary of required performance measures

Following the ideals of Target Zero, Washington is working to achieve zero transportation-related serious injuries and deaths by 2030. While short-term goals might show increases or slight decreases, WSDOT and the Washington Traffic Safety Commission feel this aspirational goal will become more achievable as advances in transportation technology (autonomous vehicles) become more widespread.

WSDOT's target adoption

In 2018, the linear trend of the 5-year rolling average was used to set the targets unless the target showed an increase; then the 5-year average value for 2013-2017 was used to set the target for 2019. See the table below for the targets produced via this method.

MAP-21 Safety Target Setting

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

	<u>2017 Baseline</u>	<u>2019 Official Targets</u> Statewide MAP-21 Target
No. 1 - Fatalities	510.0	489.2
No. 2 - Fatality rate	0.857	0.813
No. 3 - Serious injuries	2,092.2	1,855.0
No. 4 - Serious injury rate	3.517	3.068
No. 5 - Non-motorist fatalities & serious injuries	511.8	511.8

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

FHWA's "Significant Progress" measurement

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, including the obligation of state funds, 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 five targets. For each measure, there are two ways this can be done. For example, the value of the 5-year rolling average in 2019 must be:

- At or below the target set in 2018 for the 2019 year, OR
- At or below its 2017 (baseline) level.

If either of these conditions are met, the state will have made significant progress for that measure. It must do so for any four of the five measures to have made significant progress overall and avoid the penalty provisions. For example, in the graph for Measure No. 1, Washington must lower the 5-year average to fewer than 510.0 fatalities (the baseline value) or meet the 2019 target of 489.2 to achieve significant progress in that measure.

How WSDOT is setting its targets to reduce fatality and serious injuries

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

- The annual number of fatalities, serious injuries, and Vehicle Miles Traveled (VMT) is determined for a 10-year period.
- 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 2017 will serve as the baseline for performance (annual average of 2013 through 2017).
- The linear trend line through the rolling 5-year average values is determined along with its projected value in 2019 (the target year). If the projected value for 2019 is higher than the baseline value, the baseline value becomes the 2019 target. If the projected value for 2019 is lower than the baseline value, then this lower value is selected as the 2019 target.

Timelines

For MAP-21 compliance, all five statewide targets were reported to FHWA by the HSIP deadline of August 31, 2018. MPOs have until February 28, 2019 (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.

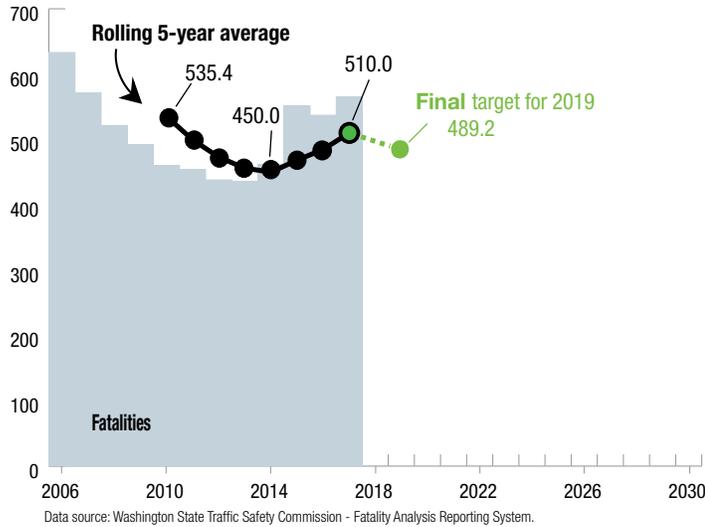
In December 2020, the FHWA will make its first determinations of significant progress toward achieving 2019 targets. They will notify states of the outcome in March 2021.

About these graphs

These graphs display the final 2019 targets for each of the five MAP-21 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

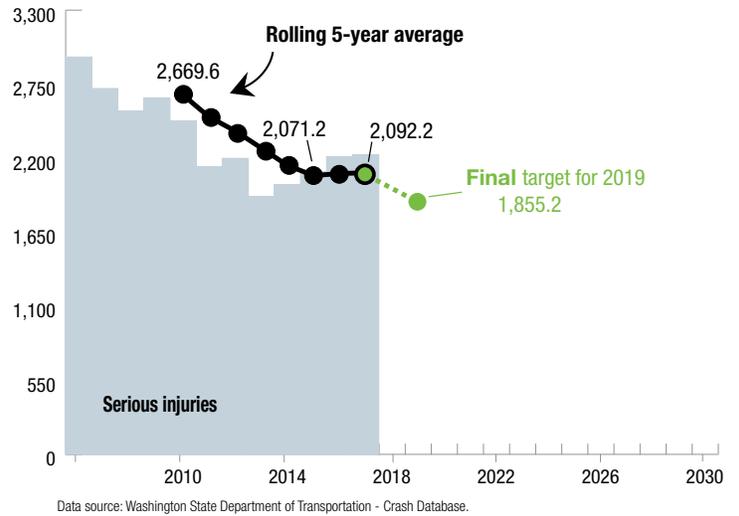
2006 through 2030



Notes for all graphics: Fatality data for 2016 is finalized as of January 2018, serious injury count for 2016 is as of August 2018. All data for 2017 is preliminary as of August 2018. 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



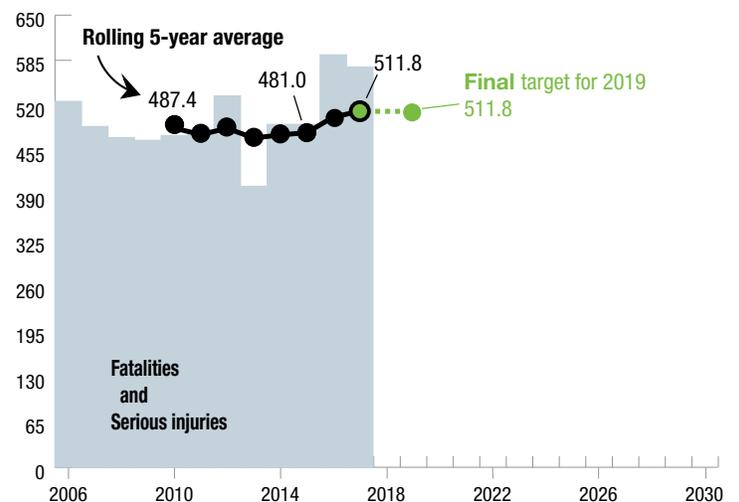
Measure No. 4 - Serious injury rate per 100 million VMT

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 determines 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 [MAP-21 Funding and Performance Penalties](#) folio for full details, including special rule penalties.

Available Data

- Number of traffic fatalities for all public roads
- Rate of traffic fatalities per 100 million Vehicle Miles Traveled (VMT) for all public roads¹
- Number of serious traffic injuries for all public roads
- Rate of serious traffic injuries per 100 million VMT for all public roads¹
- Bicyclist/Pedestrian fatalities and serious injuries for all public roads²
- Fatality and serious injury data for drivers and pedestrians age 65 and older³
- Rate of traffic fatalities for all High Risk Rural Roads (HRRR)^{1,3}

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.

For more information

MAP-21 safety requirements information: John Milton, Director of Transportation Safety and Systems Analysis (360) 704-6363 or MiltonJ@wsdot.wa.gov.

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

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. WSDOT manages the Local Federal Safety program and provides more than \$24 million annually for improvements on local facilities. WSDOT prioritizes the improvements on state and local facilities based on crash data and benefit-cost analysis. The HSIP is one component of WSDOT's total annual expenditure on safety projects. WSDOT uses additional funds from other federal and state resources each year, averaging over \$15 million since 2013.

Data collection

- MAP-21 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.
- MAP-21 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.

Purpose of reporting requirements

In July 2012, the Moving Ahead for Progress in the 21st Century Act (MAP-21) became law. The primary objectives of MAP-21 are to increase the transparency and accountability of states for their investment of federal taxpayer dollars into transportation infrastructure and services nationwide, and to ensure that states invest money in transportation projects that collectively make progress toward the achievement of national goals. The new rules will require reporting performance on the following areas: Safety; Pavement and Bridge; System Performance, Freight, and Congestion Mitigation and Air Quality.

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