



Safety Performance Measure Targets

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Agenda

- Legislative Background
- Definitions and Target Setting Methodology
- TDOT's Safety Targets
- Role of the MPOs

Federal Legislation

- Key feature of MAP-21 (2012) was establishment of performance- and outcome-based program.
- 7 goal areas, 1st for states to take on is Safety.
- National Goal—"To achieve a significant reduction in traffic fatalities and serious injuries on all public roads."
- Objective is for States to invest resources in projects that collectively will make progress toward the achievement of the States' goals.

23 CFR 490 Subpart B – Safety Performance Measures

- Establishes Safety Performance Measures
- Requires State DOTs to assess the following on all public roads in the state (includes local roads):
 1. **Number of Fatalities**
 2. **Number of Serious Injuries**
 3. **Fatality Rate (per 100 Million VMT)**
 4. **Serious Injury Rate (per 100 Million VMT)**
 5. **Number of Non-motorized Fatalities and Serious Injuries**
- Propose targets (5 year rolling average) on a yearly basis
- Determine if State has met or made significant progress
- Identifies consequences *for states* (mandatory funding reallocations)

Key Definitions

- Measure: An expression based on a metric that is used to establish targets and to assess progress towards meeting the established target
 - Number of widgets produced in a year.
- Target: A quantifiable level of performance or condition, expressed as a value for the measure, to be achieved within a time period required by the FHWA
 - Company will produce 500 widgets next year.
- 5 Year Rolling Average (5YRA): *Arithmetic* average of 5 individual, consecutive points of data.
- Number targets: Regs require must calculate arithmetic average and round to the *tenths* place.
- Rate targets: must calculate rate and round to the *thousandths* place.

Definitions, Continued

What is the national definition for serious injuries?

The US DOT defines serious injury using the MMUCC 4th Edition “Suspected Serious Injury (A)” attribute found in the “injury status” data element. A suspected serious injury is defined in the MMUC 4th Edition as any injury other than fatal that results in one or more of the following:

- Severe laceration resulting in exposure of underlying tissues/muscle/organs or resulting in significant loss of blood
- Broken or distorted extremity (arm or leg)
- Crush injuries
- Suspected skull, chest or abdominal injury other than bruises or minor lacerations
- Significant burns (second and third degree burns over 10% or more of the body)
- Unconsciousness when taken from the crash scene
- Paralysis

Number and Rate Target EXAMPLE

Number Targets

Year	2011	2012	2013	2014	2015	Result
Number of Fatalities	471	468	493	468	462	$471+468+493+468+462 = 2,362 / 5 = \underline{472.4}$ (rounded to 1/10's place)

Rate Targets

Year	2011	2012	2013	2014	2015	Result
Number of Fatalities	471	468	493	468	462	
Per 100M VMT	454.21	487.50	466.48	492.27	495.97	
Rate of Fatalities	1.04	0.96	1.06	0.95	0.93	$1.04+0.96+1.06+0.95+0.93 = 4.94 / 5 = \underline{0.988}$ (rounded to 1/100's place)

TDOT's Safety PM Targets (FINAL)

Performance Measures	5 Year Rolling Averages	
	BASELINE	TARGET
	2012-2016	2014-2018
Number of Fatalities	994.4	1,021.4
Fatality Rate	1.352	1.337
Number of Serious Injuries	7,324.4	7,630.8
Serious Injury Rate	9.951	9.982
Number of Non-motorized Fatalities and Serious Injuries	432.6	493.2

Key Factor Considerations

- **Behavioral**- Distracted driving top scored item; no current strong countermeasure programs
- **Non-motorized fatalities** - Greater mix of cars, bikes, and pedestrians sharing the roadway; distracted walking
- **Population/Travel Growth** - Increasing VMT; population growth in urban areas
- **Technology** – improvements thru technology take time to implement/see results; electronic devices as source of distraction
- **Funding/Resources** - during target time period anticipate levels to remain same
- **Economy** – positive growth in TN; gas prices down

Role of the MPOs

- Establish targets no later than 180 days after the State establishes and reports targets in the State Highway Safety Improvement Program (HSIP) annual report that is due August 31 of each year; this will be **no later than February 27** of each year
- MPOs can.....
 - Establish their own targets OR.....
 - Support State targets
 - Can make a different choice for each performance measure
- If the MPO establishes a numerical target for Fatality / Serious Injury Rate, it must provide...
 - VMT estimate
 - Explanation of estimate methodology
- MPO targets are reported to the State

Multi-State MPOs

- Establish one target for the entire MPO area

OR

- Agree to plan and program projects that support the targets established for each State
- Will require coordination between MPO and all States involved

TDOT/MPO Coordination

- State DOTs and MPOs must coordinate to the maximum extent possible when setting targets
- The MPOs, TDOT, and transit agency(s) will need to cooperatively develop a process and written agreement for developing and sharing performance data and reporting targets and performance

Coordination With MPO Plans

- The MPOs will be expected to include policies, programs, and projects in the LRTP and TIP that support the selected targets
- Long Range Transportation Plans (LRTPs) updated or amended on or after **May 27, 2018** must include safety performance measures and targets
- MPOs must include baseline safety performance, HSIP targets, and progress toward achieving HSIP targets in the System Performance Report in the LRTP.

Coordination with MPO Plans (continued)

- Transportation Improvement Programs (TIPs) updated or amended on or after **May 27, 2018** must include a description of how the TIP contributes to achieving the performance targets in the LRTP
- “Include a description in the TIP of the anticipated effect of the TIP toward achieving HSIP targets in the MTP, linking investment priorities in the TIP to those safety targets.”

Evaluating MPO Target Achievement

- MPO compliance evaluated through the Statewide and Metropolitan Planning process:
 - Metropolitan Transportation Plan
 - Transportation Improvement Plan
 - Statewide Transportation Improvement Plan
 - Certification Process & Planning Status Reviews (PSRs)

Timeline

- October 31—Safety Performance Measures Presentations to MPO Boards completed by TDOT Office of Community Transportation Staff.
- December 31— MPOs let TDOT know if they will be using their own performance measures or supporting TDOT's
- February 1, 2018—MPOs that choose to assemble their own performance measures provide performance data, draft targets to TDOT.
- February 27, 2018—Safety Performance Measures due to FHWA (180 days following adoption of Highway Safety Manual)

Questions/Comments

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