

Transportation Performance Measures

Safety Target-Setting



Richmond Regional Transportation Planning Organization
November 2, 2017
Presentation by: Chris Wichman, Senior Transportation Planner



Background

Moving Ahead for Progress in the 21st Century (MAP-21)

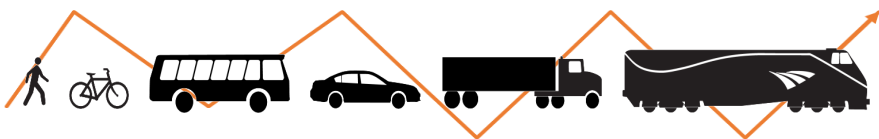
- Established a performance- and outcome-based program
- Objective: For States and MPOs to invest resources in projects that collectively make progress toward the achievement of national goals.

Source: FHWA, <https://www.fhwa.dot.gov/map21/factsheets/pm.cfm>



FHWA Required Performance Measures

Rulemaking	Final Performance Measures
Safety PM Final Rule (4/14/2016 effective date)	Number of fatalities
	Rate of Fatalities
	Number of Serious Injuries
	Rate of Serious Injuries
	Number of non-motorized fatalities and non-motorized serious injuries
Infrastructure PM Final Rule (5/20/2017 effective date)	Percentage of pavements of Interstate System in Good condition
	Percentage of pavements of Interstate System in Poor condition
	Percentage of pavements of the non-interstate NHS in Good condition
	Percentage of pavements of the non-interstate NHS in Poor condition
	Percentage of NHS bridges classified as in Good condition
	Percentage of NHS bridges classified as in Poor condition
System Performance PM Final Rule (5/20/2017 effective date)	Percent of Person-Miles Traveled on Interstate that are Reliable
	Percent of Person-Miles Traveled on non-interstate NHS that are Reliable
	Percent change in tailpipe CO2 emissions on the NHS compared to 2017
	Truck Travel Time Reliability Index
	Annual Hours of peak hour excessive delay per capita
	Per Not applicable to RRTPO in first reporting period
	Total emissions reduction



Performance Targets

State targets: Within one year of the DOT final rule on PMs, States are required to set performance targets for each measure.

MPO targets: Within 180 days of States setting performance targets, MPOs are required to set targets for each measure (where applicable).



Performance Targets

MPOs can:

Adopt unique targets, report metrics specific to the metropolitan planning area;

or

Agree to State DOT targets, report metrics specific to the metropolitan planning area.



TAC Working Group

On July 11, TAC established *Performance Measure and Target Setting Working Group* to:

- Engage in a deliberative process
- Make recommendations for:
 - Targets for five required safety measures
 - Strategies or initiatives to help achieve safety targets





Critical Factors Influencing Crashes

PM and Target Setting Working Group

- Impaired driving
 - Drunk
 - Drugged
 - Distracted
 - Drowsy
- Speed
- Occupant protection
- Roadway departure
- Intersections
- Young or inexperienced drivers
- Pedestrians and Bicycles
- VMT
- Population growth
- Urban vs. Rural context
- Automated/Connected Vehicles





The 4 E's of Safety

PM and Target Setting Working Group



Engineering



Enforcement



Education



Emergency Services

Source: Virginia 2017-2021 Strategic Highway Safety Plan, http://www.virginiadot.org/info/resources/SHSP/VA_2017_SHSP_Final_complete.pdf





Summary Recommendations

PM and Target Setting Working Group

1. Support the achievement of statewide targets, but recommended more aggressive reduction rates for all five safety targets.
2. Recommended a target of zero fatalities by 2040; further recommended discussion of Vision Zero 2040 as a policy topic for TAC consideration.





Summary Recommendations

PM and Target Setting Working Group

3. Recommended that the RRTPO tap into partnerships with DMV and local organizations/agencies to support education and enforcement initiatives.
4. Emphasized engineering-based solutions as appropriate role of the RRTPO; recommended a study of high crash locations.





Next Steps

November 14 – TAC action (anticipated)

December 7 – RRTPO Board considers TAC recommendation



Transportation Performance Measures

Safety Target-Setting



Chris Wichman

cwichman@richmondregional.org

(804) 323-2033



Additional Background Slides



Background

Declaration of Policy:

“Performance management will transform the Federal-aid highway program and provide a means to the most efficient investment of Federal transportation funds by refocusing on national transportation goals, increasing the accountability and transparency of the Federal-aid highway program, and improving project decision-making through performance-based planning and programming.”

[§1203; 23 USC 150(a)]

Source: FHWA, <https://www.fhwa.dot.gov/map21/docs/title23usc.pdf>, page 140



National Performance Goals for the federal-aid highway program

Goal area	National goal
Safety	To achieve a significant reduction in traffic fatalities and serious injuries on all public roads
Infrastructure condition	To maintain the highway infrastructure asset system in a state of good repair
Congestion reduction	To achieve a significant reduction in congestion on the National Highway System
System reliability	To improve the efficiency of the surface transportation system
Freight movement and economic vitality	To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development
Environmental sustainability	To enhance the performance of the transportation system while protecting and enhancing the natural environment
Reduced project delivery delays	To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

Source: [§1203; 23 USC 150(b)], FHWA, <https://www.fhwa.dot.gov/map21/factsheets/pm.cfm>



Performance Targets

Metropolitan Transportation Plans (MTPs) shall include:

- A description of the (federally required) performance measures and targets used to assess performance of the MPOs transportation system.
- A system performance report evaluating the performance of the transportation system with respect to the (federally required) performance targets including progress achieved by the MPO on meeting performance targets.

Source: FHWA, <https://www.fhwa.dot.gov/tpm/rule/160614presentation.pdf>



Performance Targets

Transportation Improvement Programs (TIPs) shall:

- Include a description of the anticipated effect of the TIP toward achieving the performance targets identified by the MPO in the MTP.
- Link investment priorities in the TIP to the achievement of performance targets in the MTP.

Source: FHWA, <https://www.fhwa.dot.gov/tpm/rule/160614presentation.pdf>



Performance Targets - *Accountability*

Certification of planning process for Transportation Management Areas (TMAs)

Requires the Secretary to certify at least once every four years whether the metropolitan planning process of an MPO serving a TMA meets the requirements, including the requirements of 23 USC 134 and other applicable Federal law.

One of these requirements is to include a performance-based approach in the metropolitan transportation planning process (see 23 USC 134(h)(2)). Absent this certification, DOT may withhold up to 20% of the funds attributable to the metropolitan planning area. [§1201; 23 USC 134(k)(5)]

Source: FHWA, <https://www.fhwa.dot.gov/map21/factsheets/pm.cfm>



Performance Targets

MPOs Roles and Responsibilities

Include targets in planning documents

- Metropolitan Transportation Plans [§1201; 23 USC 134(i)(2)(B)]
- Transportation Improvement Programs [§1201; 23 USC 134(j)(2)(D)]

Link investment priorities to performance targets

Report on progress



PMs and Targets – *Tentative FY 18 Schedule*

August 31, 2017
VDOT reports safety targets in annual HSIP report to FHWA

October 2017
Comment period on draft 'TPM- Progress Report 2017' to include Safety PMs and Targets

Potential TAC PM Working Group

July 11, 2017
Staff presentation to TAC on safety data, tools and recommended next steps for safety target setting

September 12, 2017
TAC recommendation to follow state targets or agree to RRTPO specific



PMs and Targets – *Tentative FY 18 Schedule*

February 27, 2018
Deadline for MPOs
to establish and
report Safety PMs
and Targets

May 20, 2018
VDOT reports state
targets for Infrastructure
and System Performance
PMs (anticipated)

Potential TAC PM Working Group

November 2, 2017
TPO Board reviews final
'TPM- Progress Report 2017'
and considers approval of
Safety PMs and Targets

- May 27, 2018
- MTP PM compliance required
(upon updates on or after this date)
 - TIP PM compliance required
(upon updates on or after this date)



Virginia SHSP - Safety Targets

	Statewide Data (2015)	Statewide Reduction Rate (annual)	Statewide Target (2021)
Number of Fatalities	753	2% decrease	670
Rate of Fatalities (per 100 Million VMT)	0.91	3% decrease	0.74
Number of Serious Injuries	8,014	5% decrease	5,900
Rate of Serious Injuries (per 100 Million VMT)	9.66	7% decrease	6.25
Number of non-motorized fatalities and non-motorized serious injuries	704	4% decrease	531

