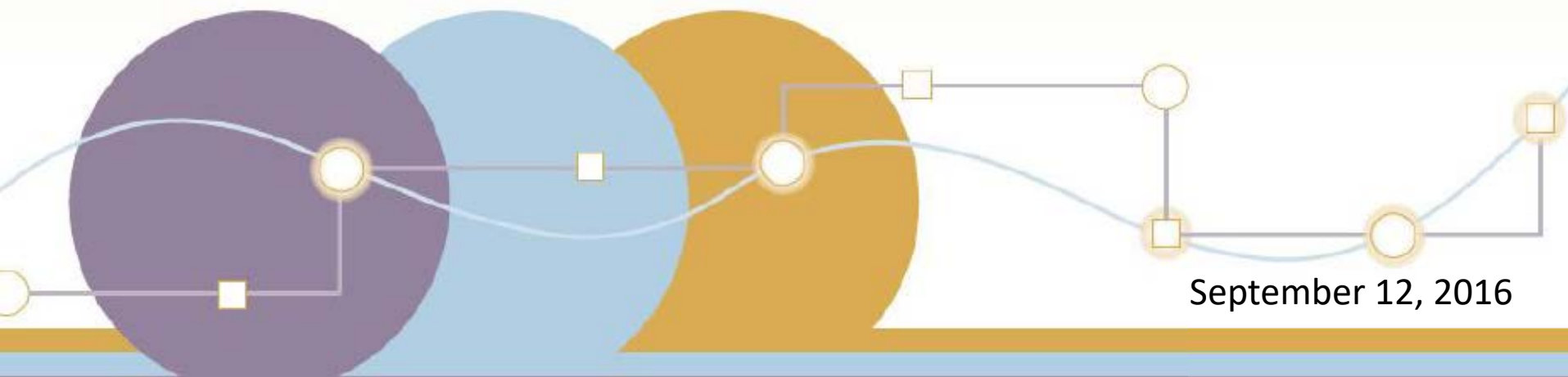
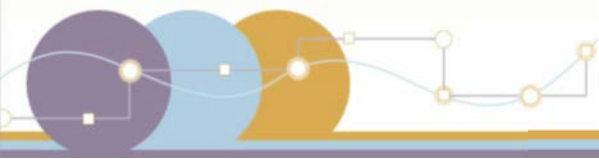


National Performance Management Measures NPRM

**Assessing Performance of the National Highway System,
Freight Movement on the Interstate System, and the
Congestion Mitigation and Air Quality Improvement Program**

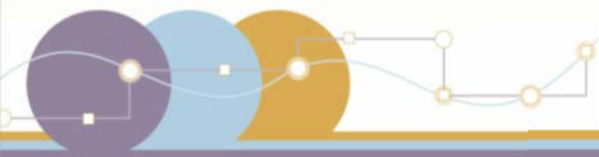
Presentation for ITS Carolinas Annual Meeting





Why Are We Doing Performance Management?

- To transform the Federal-aid Highway Program and to provide a means to the **most efficient investment** of Federal transportation funds
- To refocus on **national transportation goals**
- To increase the **accountability and transparency** of the Federal-aid Highway Program
- To **improve decision-making** through performance-based planning and programming



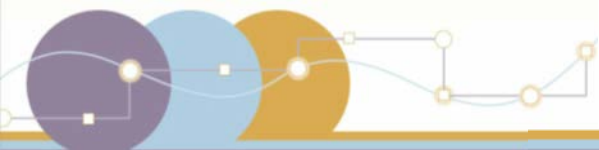
Subpart E: Proposed Measures, Metrics and Applicability

Part 490 Subpart	Measure	Metric	Applicability
Subpart E - Performance of the National Highway System	Percent of the Interstate System providing for Reliable Travel Times	Level of Travel Time Reliability (LOTTR)	Interstate System mileage within the State or each MPA
	Percent of the non-Interstate NHS providing for Reliable Travel Times	Level of Travel Time Reliability (LOTTR)	Non-Interstate NHS within the State or each MPA
	Percent of the Interstate System where Peak Hour Travel Times meet expectations	Peak Hour Travel Time Ratio (PHTTR)	Interstate System mileage within each urbanized area with a population over 1 million
	Percent of the non-Interstate NHS where Peak Hour Travel Times meet expectations	Peak Hour Travel Time Ratio (PHTTR)	Non-Interstate NHS mileage within each urbanized area with a population over 1 million



Subpart F: Proposed Measures, Metrics and Applicability

Part 490 Subpart	Measure	Metric	Applicability
Subpart F - Freight Movement on the Interstate System	Percent of the Interstate System mileage providing for Reliable Truck Travel Times	Truck Travel Time Reliability (TTTR)	Interstate System mileage within the State or each MPA
	Percent of the Interstate System Mileage Uncongested	Average Truck Speed	Interstate System mileage within the State or each MPA



Subparts G & H: Proposed Measures Metrics, and Applicability

Part 490 Subpart	Measure	Metric	Applicability
Subpart G – CMAQ – Traffic Congestion	Annual Hours of Excessive Delay Per Capita	Total Excessive Delay	NHS roads in urbanized area with a population over 1 million are, all or in part, designated as nonattainment or maintenance areas for ozone (O ₃), carbon monoxide (CO), or particulate matter (PM)
Subpart H – CMAQ - On-Road Mobile Source Emissions	2- and 4-year Total Emission Reductions for each applicable criteria pollutant and precursor	Annual Tons of Emission Reductions by project for each applicable criteria pollutant and precursor	All projects funded by CMAQ program in areas designated as nonattainment or maintenance for O ₃ , CO, or PM



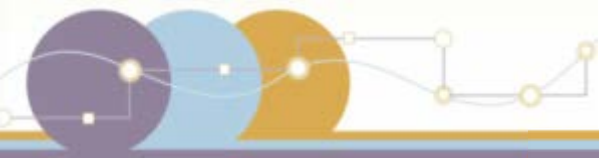
Proposed Data Sources

Data Sources	Applicable Measures (Proposed 23 CFR §490)
Highway Performance Monitoring System (HPMS)	<ul style="list-style-type: none"> • Pavement Condition Performance Measures • Performance of the NHS • Freight Movement on the Interstate System • CMAQ – Traffic Congestion
National Performance Management Research Data Set (NPMRDS) or equivalent data set	<ul style="list-style-type: none"> • Performance of the NHS • Freight Movement on the Interstate System • CMAQ – Traffic Congestion
EPA Green Book	<ul style="list-style-type: none"> • CMAQ – Traffic Congestion • CMAQ – On-Road Mobile Source Emissions
CMAQ Public Access System	<ul style="list-style-type: none"> • CMAQ – On-Road Mobile Source Emissions
Population Data from US Decennial Census	<ul style="list-style-type: none"> • Performance of the NHS – Peak Hour Travel Time Only • CMAQ – Traffic Congestion
Urbanized Area Boundary from US Decennial Census or Adjusted Boundary reported to HPMS	<ul style="list-style-type: none"> • Performance of the NHS – Peak Hour Travel Time Only • CMAQ – Traffic Congestion



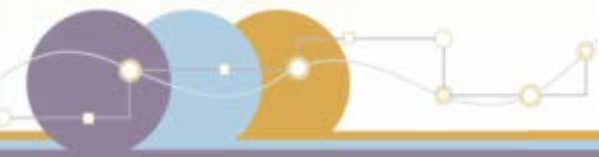
What is the National Performance Management Research Data Set (NPMRDS)?

- Is a data set provided by FHWA **monthly to State DOTs and MPOs**
- Includes **travel times derived from all traffic using the highway system**, in 5-minute bins
- Includes a breakdown of travel times of **freight vehicles and all traffic (freight and passenger vehicles)**
- Uses travel times that are reported via vehicle probes on **contiguous segments of roadway** covering the entire mainline NHS
- **Uses vehicle probes** that could include mobile phones, vehicle transponders, and portable navigation devices



Equivalent Data Source Requirements

- Include contiguous segments that cover the full NHS, as defined in 23 U.S.C. 103, within the State boundary and/or MPA
- Include average travel times for at least the same number of 5-minute intervals and the same locations that would be available in the NPMRDS
- Be populated with actual measured vehicle travel times and shall not be populated with travel times derived from imputed methods (historic travel times or other estimates)
- For each segment at 5-minute intervals throughout a full day (24 hours) for each day of the year, include the average travel time, recorded to the nearest second, representative of at least one of the following:
 - All traffic on each segment of the NHS (freight and passenger)
 - Freight vehicle traffic on each segment of the Interstate System



Measures to Assess Performance of the NHS – Travel Time Reliability

Each Reporting Segment

METRICS

Level of Travel Time Reliability (LOTTR) of each time period of each reporting segment for the full extent:

1. Interstate System
2. Non-Interstate NHS

THRESHOLD

LOTTR < 1.50 for the reporting segment = reliable

Entire Applicable Network

MEASURES

Percent of system providing for reliable travel times.

1. Interstate System
2. Non-Interstate NHS

Interstate Example

30 sec (80th percentile)/
15 sec (50th percentile)

LOTTR = 2.00

$2.00 > 1.50 =$

Not Reliable

8,125 reliable miles/
10,000 total Interstate
miles =

81.3% reliable



Measure vs. Target

Entire Applicable Network

MEASURES

Percent of system providing for reliable travel times. Threshold: < 1.50

1. Interstate System
2. Non-Interstate NHS

TARGETS

1. % of Interstate System provides reliable travel times;
2. % of non-Interstate NHS provides reliable travel times

Interstate
Example

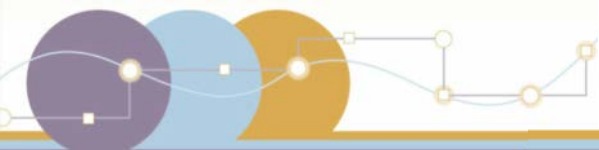
81.3%

Interstate miles providing for reliable travel times

Target: 80.0 %

Actual: 81.3 %

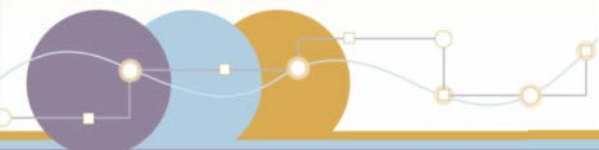
✓ **Target Achieved**



Target Establishment Summary

Part 490 Subpart	Proposed Measures	State DOT Targets	MPO Targets	Performance Period Start Date
Subpart E - Performance of the National Highway System	Percent of the Interstate System providing for Reliable Travel Times	2-year* & 4-year targets - Statewide	4-year target only - MPA Area	January 1, 2018
	Percent of the non-Interstate NHS providing for Reliable Travel Times			
	Percent of the Interstate System where Peak Hour Travel Times meet expectations	Single 2-year & 4-year targets for each urbanized area		January 1, 2018
	Percent of the non-Interstate NHS where Peak Hour Travel Times meet expectations			
Subpart F - Freight Movement on the Interstate System	Percent of the Interstate System Mileage providing for Reliable Truck Travel Times	2-year & 4-year targets - Statewide	4-year target only - MPA Area	January 1, 2018
	Percent of the Interstate System Mileage Uncongested			

**Non-Interstate NHS Travel Time Reliability only: 2-year targets not required for 1st performance period*



Target Establishment Summary

Part 490 Subpart	Proposed Measures	State DOT Targets	MPO Targets	Performance Period Start Date
Subpart G – CMAQ – Traffic Congestion	Annual Hours of Excessive Delay Per Capita	Single 2-year* & 4-year targets for each urbanized area		January 1, 2018
Subpart H – CMAQ - On-Road Mobile Source Emissions	Total Emission Reductions	2-year & 4-year targets – Statewide	2-year** & 4-year targets - MPA Area	October 1, 2017

**CMAQ- traffic congestion measure: 2-year targets not required for 1st performance period*



Rulemaking Resources

Office of TPM website: <http://www.fhwa.dot.gov/tpm/>

In-Depth Webinars on Proposed Measures

- 4/25: Freight Movement on the Interstate System (Subpart F) – Technical Review
- 4/26: Performance of the NHS (Subpart E)
- 5/3: CMAQ – Traffic Congestion and On-Road Mobile Emissions (Subparts G and H)
- 5/11: Freight Movement on the Interstate System (Subpart F) – Industry Overview

Fact sheets, published NRPMs, webinar registration and recording, and related information at http://www.fhwa.dot.gov/tpm/rule/pm3_nprm.cfm



Read Submitted Comments at:

www.regulations.gov

FHWA 2013-0054

Items of Interest on Docket (Supplemental Documents):

- Step-By-Step on Docket (TBD)
- Measure Applicability on Docket
 - » Peak Hour <https://www.regulations.gov/#!documentDetail;D=FHWA-2013-0054-0105>
 - » CMAQ <https://www.regulations.gov/#!documentDetail;D=FHWA-2013-0054-0070>
- NPMRDS Missing Data and Outlier Analysis on Docket
<https://www.regulations.gov/#!documentDetail;D=FHWA-2013-0054-0103>
- FHWA Sample MAP-21 Rule Making Implementation and Reporting
Dates <https://www.regulations.gov/#!documentDetail;D=FHWA-2013-0054-0096>

For clarifying questions or more information, please contact:

Francine Shaw Whitson
FSWhitson@dot.gov
PerformanceMeasuresRulemaking@dot.gov



Summary of Comments

- Comments Received: (*Official Docket Count: 8,088*)
 - State DOTs = 34
 - MPOs = 23
 - Municipal Governments = 22
 - Also numerous organizational comments and thousands of campaign comments.
- Major themes:
 - Numerous comments on the details of calculations and the use of the National Performance Management Research Data Set (NPMRDS)
 - Request for multimodal performance measures
 - Request for a GHG measure
 - +Many others

P.L. 114-94

Fixing America's Surface Transportation (FAST) Act

Key Highway Provisions



U.S. Department
of Transportation

**Federal Highway
Administration**

Key Highway Facts

- \$226.3 B for highways over five years (FY 2016-2020)
 - \$225.2 B in contract authority
 - \$1.1 B from the General Fund
- Builds on the program structure and reforms of MAP-21
- Continued focus on accelerating project delivery
- Adds a new freight formula and expands freight network
- Adds a new discretionary program for nationally significant freight and highway projects

FASTLANE grants | **NEW**

(Nationally Significant Freight & Hwy. Projects)

- \$900 M/year (average) for competitive grants or TIFIA loans for projects >\$100 M (reduced for States w/ small programs)
- Eligible activities:
 - Highway freight projects on National Highway Freight Network
 - NHS highway/bridge projects, projects in National Scenic Areas
 - Freight rail/intermodal/port projects (\leq \$500 M over 5-year period)
 - Rail-highway grade crossing or grade separation projects
- OST selects projects; Congress has 60 days to disapprove
- FY 16 funding applications were due April 14, 2016

Advanced Transportation and Congestion Management Technologies Deployment Grants | **NEW**

- Competitive grant program (\$60 million a year)
- Must demonstrate one of more of the following:
 - advanced traveler information systems; advanced transportation management technologies; infrastructure maintenance, monitoring, and condition assessment; advanced public transportation systems; transportation system performance data collection, analysis, and dissemination systems; advanced safety systems, including vehicle-to-vehicle and vehicle-to-infrastructure communications; technologies associated with autonomous vehicles, and other collision avoidance technologies, including systems using cellular technology; integration of intelligent transportation systems with the Smart Grid and other energy distribution and charging systems; electronic pricing and payment systems; or advanced mobility and access technologies, such as dynamic ridesharing and information systems to support human services for elderly and disabled individuals.
- Deadline for submittals was June 24, 2016