



PART I: Moving a Nation

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Introduction

Part I of this 24th C&P Report includes six chapters, each of which describes the current system from a different perspective:

- Chapter 1, **System Assets**, describes the existing extent of the highways, bridges, and transit systems. Highway and bridge data are presented for system subsets based on functional classification and Federal system designation, whereas transit data are presented for different types of modes and assets.
- Chapter 2, **Funding**, provides detailed data on the revenue collected and expended by different levels of governments to fund transportation construction and operations throughout the United States. The chapter also explores alternative financing and delivery of transportation projects.
- Chapter 3, **Travel Behavior**, analyzes travel patterns associated with various household characteristics. The chapter also discusses internet- or phone- based mobility solutions.
- Chapter 4, **Mobility and Access**, covers highway congestion and reliability in the Nation's urban areas, the economic costs of congestion, and active transportation and access to destinations for all users. The transit section explores ridership, average speed, vehicle utilization, and maintenance reliability.
- Chapter 5, **Safety**, presents national-level statistics on highway safety performance, focusing on the most common roadway factors that contribute to roadway fatalities and injuries. The transit section summarizes safety and security data by mode and type of transit service.
- Chapter 6, **Infrastructure Conditions**, presents data on the current physical conditions of the Nation's highways, bridges, and transit assets.

Transportation Performance Management

A recurring theme in Part I of the C&P Report is the impact of changes under the Fixing America's Surface Transportation (FAST) Act pertaining to Transportation Performance Management (TPM).

What Is Transportation Performance Management?

The Federal Highway Administration (FHWA) defines TPM as a strategic approach that uses system information to make investment and policy decisions that contribute to national performance goals. FHWA works with States and metropolitan planning organizations to transition toward and implement a performance-based approach to carrying out the Federal-aid Highway Program. This transition supports both FAST Act and Moving Ahead for Progress in the 21st Century (MAP-21) legislation, which integrate performance into many Federal transportation programs.

TPM, systematically applied in a regular ongoing process:

- Provides key information to help decision makers, enabling them to understand the consequences of investment decisions across multiple markets;
- Improves communications among decision makers, stakeholders, and the traveling public; and
- Ensures targets and measures are developed in cooperative partnerships and are based on data and objective information.

National Goals – Federal-aid Highway Program

The FAST Act continues MAP-21's highway program transition to a performance- and outcome-based program. States will invest resources in projects that collectively will make progress toward national goals. FHWA is collaborating with State and local agencies across the country to focus on the national goals established, regardless of resource limitations.

Among the national performance goals specified in 23 United States Code § 150(b) for the Federal-aid Highway Program are:

- **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 Highway 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; and
- **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.

Transportation Performance Management Elements

FHWA has organized the performance-related provisions within MAP-21 into six TPM elements to more effectively communicate the efforts made to implement these requirements. These six TPM elements are listed below. Additional details are available at <https://www.fhwa.dot.gov/tpm/about/how.cfm>

National Goals	Congressionally established goals or program purpose to focus the Federal-aid Highway Program into specific areas of performance
Measures	FHWA-established measures to assess performance/condition in carrying out performance-based Federal-aid highway programs
Targets	Targets established by Federal-aid highway funding recipients for the measures to document future performance expectations
Plans	Development of strategic and tactical plans by Federal funding recipients to identify strategies and investments that address performance needs
Reports	Development of reports by Federal funding recipients that document progress toward target achievement, including the effectiveness of Federal-aid highway investments
Accountability and Transparency	FHWA-developed requirements for Federal funding recipients to use to achieve or make significant progress toward targets

Implementation of MAP-21/FAST Act Performance Requirements

FHWA has finalized six related rulemakings to implement the TPM framework established by MAP-21 and the FAST Act:

- A Final Rule on **Statewide and Metropolitan/Non-metropolitan Transportation Planning** implements a performance-based planning process at the State and metropolitan levels. The Final Rule defines coordination in the selection of targets, linking planning and programming to performance targets.
- A Final Rule for **Safety Performance Management Measures (PM-1)** establishes five safety performance measures to assess fatalities and serious injuries on all public roads, a

process to assess progress toward meeting safety targets, and a national definition for reporting serious injuries.

- A Final Rule for the **Highway Safety Improvement Program (HSIP)** integrates performance measures, targets, and reporting requirements into the HSIP. The Final Rule contains three major policy changes: Strategic Highway Safety Plan Updates, HSIP Report Content and Schedule, and the Subset of the Model Inventory of Roadway Elements.
- A Final Rule for **Pavement and Bridge Performance Measures (PM-2)** defines pavement and bridge condition performance measures and minimum condition standards, along with target establishment, progress assessment, and reporting requirements.
- A Final Rule for an **Asset Management Plan** defines the contents and development process for an asset management plan. The Final Rule also defines minimum standards for pavement and bridge management systems.
- A Final Rule for **System Performance Measures (PM-3)** defines performance measures to assess performance of the Interstate System, non-Interstate National Highway System, freight movement on the Interstate System, CMAQ traffic congestion, and on-road mobile emissions.

The Safety PM Final Rule (PM-1) has been implemented where States set their first round of safety performance targets in their 2017 HSIP Reports. The State Safety Performance Targets microsite (https://safety.fhwa.dot.gov/hsip/spm/state_safety_targets/) provides a glimpse into each State's safety performance targets by displaying historical data alongside its safety performance targets and includes information on how States set their targets. States set their first round of PM-2 and PM-3 targets in their 2018 State Biennial Performance Report on October 1, 2018.

Beginning with the 2018 reporting year, all 50 State DOTs, the District of Columbia, and Puerto Rico reported performance data and targets for each of the 17 performance measures. The first full set of performance data submitted to the FHWA is available online at the State Performance Dashboard and Reports website.² The States' performance targets represent an important step in the integration of performance management in transportation investment decisions. State DOTs and MPOs worked together to set data-informed targets, and are accountable for managing performance to make progress toward the targets they set. Now, State DOTs can benchmark their performance among peer agencies because they have access to consistent data. Also, FHWA can uniformly track performance data and tell a national story. This is a critical step in a long-term effort to better manage the performance of the Nation's highways.

² <https://www.fhwa.dot.gov/tpm/reporting/state/index.cfm>

Summary of MAP-21/FAST Act Performance Measures

Measure Area	Performance Measures
Safety¹	
National Performance Management Measures to Assess Highway Safety <i>Rule Effective Date: April 14, 2016</i> <i>Regulatory Part: 23 CFR 490 (Subparts A, B)</i>	<ul style="list-style-type: none"> ▪ Number of fatalities ▪ Rate of fatalities per 100 million vehicle miles traveled (VMT) ▪ Number of serious injuries ▪ Rate of serious injuries per 100 million VMT ▪ Number of nonmotorized fatalities and nonmotorized serious injuries
Pavement and Bridge Condition²	
National Performance Management Measures to Assess Pavement Condition <i>Rule Effective Date: May 20, 2017</i> <i>Regulatory Part: 23 CFR 490 (Subparts A, C)</i>	<ul style="list-style-type: none"> ▪ Percentage of pavements of the Interstate System in Good condition ▪ Percentage of pavements of the 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
National Performance Management Measures to Assess Bridge Condition <i>Rule Effective Date: May 20, 2017</i> <i>Regulatory Part: 23 CFR 490 (Subparts A, D)</i>	<ul style="list-style-type: none"> ▪ Percentage of NHS bridges classified as in Good condition ▪ Percentage of NHS bridges classified as in Poor condition
System Performance and Freight³	
Performance of the National Highway System (NHS) <i>Rule Effective Date: May 20, 2017</i> <i>Regulatory Part: 23 CFR 490 (Subparts A, E)</i>	<ul style="list-style-type: none"> ▪ Interstate Travel Time Reliability Measure: Percentage of person-miles traveled on the Interstate that are reliable ▪ Non-Interstate Travel Time Reliability Measure: Percentage of person-miles traveled on the non-Interstate NHS that are reliable
Freight Movement on the Interstate System <i>Rule Effective Date: May 20, 2017</i> <i>Regulatory Part: 23 CFR 490 (Subparts A, F)</i>	<ul style="list-style-type: none"> ▪ Freight Reliability Measure: Truck Travel Time Reliability Index
CMAQ Program⁴	
Measures for Assessing the CMAQ Program – Traffic Congestion <i>Rule Effective Date: May 20, 2017</i> <i>Regulatory Part: 23 CFR 490 (Subparts A, G)</i>	<ul style="list-style-type: none"> ▪ PHED Measure: Annual hours of peak hour excessive delay (PHED) per capita ▪ Non-SOV Travel Measure: Percentage of non-single occupancy vehicle (SOV) travel
Measures for Assessing the CMAQ Program – On-road Mobile Source Emissions <i>Rule Effective Date: May 20, 2017</i> <i>Regulatory Part: 23 CFR 490 (Subparts A, H)</i>	<ul style="list-style-type: none"> ▪ Emissions Measure: Total Emission Reductions

¹ Each performance measure is based on a 5-year rolling average. These measures contribute to assessing the HSIP.

² These measures contribute to assessing the National Highway Performance Program (NHPP).

³ These measures contribute to assessing the NHPP and National Highway Freight Program (NHFP).

⁴ These measures contribute to assessing the CMAQ Improvement Program.

Additional Performance Management-related Rules

TPM-related Rules	Rule Effective Date	Regulatory Part	Requirements
Highway Safety Improvement Program (HSIP)	April 14, 2016	23 CFR 924	Integrates performance measures, targets, and reporting into HSIP
Statewide and Non-metropolitan Planning; Metropolitan Planning	June 27, 2016	23 CFR 450 and 49 CFR 613	Defines coordination for target selection and performance-based planning and programming
Highway Asset Management Plans for National Highway System (NHS)	October 2, 2017	23 CFR 515	Defines the Asset Management Plan, as well as minimum standards