Transportation Performance Management: A New Era of Accountability and Reporting

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FHWA - Indiana
Transportation Performance Management is...  

Transportation Performance Management is a strategic approach that uses system information to make investment and policy decisions to achieve national performance goals.
Evolution of the Federal Program
Example: Evolution of Bridge Program

Pre MAP-21 (Program Oversight & Eligibility)
- HBRRP
- Goal: Reduce ft^2 deficient bridges (On/Off)
- Rehab/Replacement
- Eligibility criteria
- Funding only for bridges

Post MAP-21 (PM Oversight)
- Goal: Maintain bridges in state of good repair
- Focus on the NHS
- Measures: % Good; % Poor; minimum condition level
- New/Rehab/Replacement/PM – BMS
- NHPP: Funding is flexible between all asset classes
The MAP-21 Charge (23 USC 150(a) - Declaration of Policy)

Performance Management

Will:
- transform the Federal-aid highway program
- provide a means to the most efficient investment of funds

By:
- refocusing on national transportation goals,
- increasing accountability & transparency, and
- improving project decision making
TPM Elements

1. National Goals
2. Measures
3. Targets
4. Plans
5. Reports
6. Accountability and Transparency
National Goal Areas

- Safety
- Infrastructure condition
- Congestion reduction
- System reliability
- Freight movement and economic vitality
- Environmental sustainability
- Reduced project delivery delays
## Rulemakings

<table>
<thead>
<tr>
<th>TPM-Related Rulemakings</th>
<th>Rule Effective Date</th>
<th>Regulatory Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety Performance Measures (PM1)</td>
<td>April 14, 2016</td>
<td>23 CFR 490 (Subpart B)</td>
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<tr>
<td>Highway Safety Improvement Program (HSIP)</td>
<td>April 14, 2016</td>
<td>23 CFR 924</td>
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<tr>
<td>Statewide and Non-Metropolitan Planning; Metropolitan Planning</td>
<td>June 27, 2016</td>
<td>23 CFR 450</td>
</tr>
<tr>
<td>Pavement and Bridge Condition Measures (PM2)</td>
<td>May 20, 2017</td>
<td>23 CFR 490 (Subpart C &amp; D)</td>
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<tr>
<td>Performance of the NHS, Freight, and CMAQ Measures (PM3)</td>
<td>May 20, 2017</td>
<td>23 CFR 490 (Subpart E, F, G, H)</td>
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</tbody>
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### Measures: Safety (PM1)

<table>
<thead>
<tr>
<th>Measure Area</th>
<th>Performance Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>• Number of fatalities</td>
</tr>
<tr>
<td></td>
<td>• Fatalities per million vehicle miles traveled</td>
</tr>
<tr>
<td></td>
<td>• Number of serious injuries</td>
</tr>
<tr>
<td></td>
<td>• Serious injuries per million vehicle miles traveled</td>
</tr>
<tr>
<td></td>
<td>• Number of non-motorized fatalities and non-motorized serious injuries</td>
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The Office of Safety has a website dedicated to this rule:

[https://safety.fhwa.dot.gov/hsip/spm/](https://safety.fhwa.dot.gov/hsip/spm/)
### Measures: Pavement & Bridge Condition (PM2)

<table>
<thead>
<tr>
<th>Measure Area</th>
<th>Performance Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>National Performance Management Measures to Assess Pavement Condition</strong></td>
<td>• Percentage of pavements of the Interstate System in Good condition</td>
</tr>
<tr>
<td></td>
<td>• Percentage of pavements of the Interstate System in Poor condition</td>
</tr>
<tr>
<td></td>
<td>• Percentage of pavements of the non-Interstate NHS in Good condition</td>
</tr>
<tr>
<td></td>
<td>• Percentage of pavements of the non-Interstate NHS in Poor condition</td>
</tr>
<tr>
<td><strong>National Performance Management Measures to Assess Bridge Condition</strong></td>
<td>• Percentage of NHS bridges classified as in Good condition</td>
</tr>
<tr>
<td></td>
<td>• Percentage of NHS bridges classified as in Poor condition</td>
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### Measures: System Performance & Freight (PM3)

<table>
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<tr>
<th>Measure Area</th>
<th>Performance Measures</th>
</tr>
</thead>
</table>
| Performance of the National Highway System (NHS) (System Performance) | • **Interstate Travel Time Reliability Measure:** Percent of person-miles traveled on the Interstate that are reliable  
• **Non-Interstate Travel Time Reliability Measure:** Percent of person-miles traveled on the non-Interstate NHS that are reliable |
| Freight Movement on the Interstate System | • **Freight Reliability Measure:** Truck Travel Time Reliability (TTTR) Index |
### Measures: CMAQ Program (PM3)

<table>
<thead>
<tr>
<th>Measure Area</th>
<th>Performance Measures</th>
</tr>
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</table>
| Measures to Assess the CMAQ Program: Traffic Congestion | • **Peak Hour Excessive Delay (PHED) Measure:** Annual Hours of Peak Hour Excessive Delay (PHED) Per Capita  
• **Non-Single Occupancy Vehicle Travel (SOV) Measure:** Percent of Non-Single Occupancy Vehicle (SOV) Travel |
| Measure to Assess the CMAQ Program: On-Road Mobile Source Emissions | • **Emissions Measure:** Total Emission Reductions                                      |
Performance Reporting

State DOT Progress Reporting Portal

Performance Storytelling

System Performance

- National Highway System Bridge Condition – Good/Poor
  - **GOOD**: 40% of National Highway System
  - **POOR**: 10% of National Highway System

Data: Bridge Condition Data from NBI, 2013.

Facts
- Both bridges and pavements on the nation’s highways have been well-maintained. NHS pavements are the area of greatest need for pavement maintenance.
- Bridge conditions are monitored regularly.
PM1, PM2, and PM3 Reporting Requirements

- PM1 via Annual HSIP Report
- PM2 & PM3 via Biennial Reports
  - Baseline/2-year/4-year (Performance Period Report)
- State and MPO reports on performance targets through planning process

Bridge Conditions

- Good: 38%
  - Target: No less than 35% good
- Fair: 41%
  - Target: No more than 28% poor
- Poor: 21%
  - Target: No more than 20% poor

Pavement: Interstate conditions

- Good: 52%
  - Target: No less than 50% good
- Fair: 20%
  - Target: No more than 20% poor
- Poor: 28%
  - Target: No more than 20% poor
Reported Safety Targets - IN

What was reported to NHTSA and FHWA?

- Indiana Highway Safety Plan (HSA) & Highway Safety Improvement Program (HSIP)
  - Fatalities 846 projected in 2018
    - Target 5-Year Avg. 814.9
  - Fatality rate 1.065 projected in 2018
    - Target 5-Year Avg. 1.036
  - Serious injuries 3,577 projected in 2018
    - Target 5-Year Avg. 3479.8

- HSIP only
  - Serious injury rate 4.379 projected in 2018
    - Target 5-Year Avg. 4.347
  - Non-motorist fatalities & serious injuries 497 projected in 2018
    - Target 5-Year Avg. 417.0
Transportation Asset Management Plan Rule

- **Initial** plan due April 30, 2018
- 10-year period
- Bridge and Pavement assets on the NHS
- Relies on Pavement and Bridge Management Systems
  - Meet minimum requirements and
  - Must be used to develop the asset management plan

![Projected Funding Levels](chart.png)

[Source: U.S. Department of Transportation, Federal Highway Administration]
TPM Roles and Responsibilities

• USDOT: Establish Target Setting Rules
  o Establish measures; identify data sources; define metrics
  o Report to Congress/others
  o Stewardship and oversight

• States and MPOs: Implement Target Setting Rules
  o Establish and report on targets
  o Support national goals in the planning process and consider measures and targets in long range plans and programs
Your Go-To Resource for TPM