Performance Management: Preparing for MAP-21

presented to
Transport Chicago

presented by
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Overview of performance-based planning

Performance-based planning requirements of Moving Ahead for Progress in the 21st Century Act (MAP-21)

Implications for MPOs and Transit Agencies

Best Practices and lessons learned
What is Performance-Based Planning?

- Tool to inform transparent and consistent decision-making with data-driven analysis
- Guides policy development and investment decisions: funding allocations, project prioritization and selection
- Integrated into transportation planning activities
Performance-Based Planning Process

1. Goals/Objectives
2. Performance Measures
3. Target Setting
   - Evaluate Programs, Projects & Strategies
4. Allocate Resources
   - Budget and Staff
5. Measure, Evaluate, and Report Results
   - Actual Performance Achieved

Quality Data
Goals and objectives

» Describe the strategic direction of an agency

Measures

» Track the accomplishment of goals and objectives

Target setting, resource allocation, and performance monitoring

» Continuous cycle that links goals and measures to specific investment and policy decisions

» Measures and targets are used to support resource allocation (investments in infrastructure, staffing decisions, and policy/strategy decisions)

All elements of the process should be supported by quality data
Different audiences call for different levels of detail of performance reporting, but all should align with the overarching goals and objectives.

Consistent evaluation of implementation activities allows an agency to make ongoing adjustments to its performance-based planning program, as needed.

Monitoring and reporting is a continuous effort.
Overview of MAP-21

- Went into full effect October 1, 2012 and authorizes programs through September 30, 2014
  - Similar to past funding levels under the previous authorization (SAFETEA-LU)

- Includes programmatic consolidation
  - No earmarks
  - Most discretionary programs eliminated

- Creates a performance-based Federal program
  - Increase the accountability and transparency of the Federal program
  - Improve transportation investment decision-making
Core Formula Program Areas

- National Highway Performance Program (NHPP)
  - Consolidates the Interstate, National Highway System (NHS), and on-system portion of the Highway Bridge Rehabilitation and Replacement programs

- Surface Transportation Program (STP)
  - Incorporates the off-system bridge program

- Congestion Mitigation and Air Quality (CMAQ)

- Highway Safety Improvement Program (HSIP)
  - Including the Rail-Highway Crossing program (discontinue High Risk Rural Roads)

- Metropolitan Planning
National Goals and Performance Measures for Highways

- Safety
  -Fatalities and serious injuries—both number and rate per vehicle mile traveled--on all public roads

- Infrastructure condition
  - Pavement condition on the Interstate System and on remainder of the NHS
  - Bridge condition on the NHS

- Congestion reduction
  - Traffic congestion

- System reliability
Freight movement and economic vitality
  » Freight movement on the Interstate System

Environmental sustainability
  » On-road mobile source emissions

Reduced project delivery delays

Additional measure:
  » Performance of the Interstate System and the remainder of the NHS
FTA will define State of Good Repair (SGR) standards for measuring the condition of capital assets

» Equipment
» Rolling stock
» Infrastructure
» Facilities

FTA will develop corresponding SGR performance measures

Grantees are required to set the targets

Must be incorporated into the metropolitan plan and TIP

Submit an annual performance report
Regional plan must use a performance-based approach to decision-making that supports the national goals.

MPOs must establish targets for national measures.

Plans must include measures, targets, and a performance report comparing actual performance to target values.

Measures and targets must be considered when developing policies, programs and investment priorities.

Coordination with the DOT and other transit operators beyond the Council on measures and targets.

MPOs must link projects in the TIP to their targets.

Coordination with Partners.
What Does This Mean for Regions?

- Requires a Metropolitan System Performance Report
  - Evaluation of the condition and performance of the transportation system
  - Progress achieved in meeting performance targets in comparison with the performance in previous reports
  - Evaluation of how selection of a preferred scenario has improved conditions and performance, if applicable
  - Evaluation of how local policies and investments have impacted costs necessary to achieve performance targets, where applicable.
Still must update transportation plan every 4 years

Specifics will occur after the expiration of MAP-21

Some MPOs are moving forward with developing a performance-based approach to planning that aligns with MAP-21, with the understanding that updates may be necessary

Performance-based planning processes will grow and evolve over time, starting with more simple measures that can be calculated with available data
What Does This Mean for Regions?

- **2013**: NPRM: Infrastructure Goal Area
- **Winter**: NPRM: Safety Goal Area
- **Spring**: NPRM: Other Goal Areas
- **TBD**: Final Rules become Effective for All Goal Areas, Transit, and Planning
- **2014**: States/Transit Agencies Set Targets
- **1 Year**: MPOs Set Targets
- **180 Days**: Final Rules become Effective for All Goal Areas, Transit, and Planning

Timeline:
- 2013
- 2014
- 2015
- 2016
Apply network-level performance measures that link funding levels to system performance

Help understand implications of investment decisions on the transportation system as a whole

Provided a link between resource allocation and the region’s stated goals, objectives, and policy direction
**Experience Around the U.S.: Indianapolis MPO**

- Relationship between funding levels and future performance
  - Pavement preservation - Percent of pavement in good condition
  - Bridge preservation - Percent of bridge deck area in good condition
  - Roadway expansion - Reduction in peak-period delay, relative to no-build scenario
Prioritization process for transportation investments to reflect regional priorities

Used to understand the consequences of different distributions of investment across key program areas
Results in a preferred funding level for each program area and a target value for each performance measure that can be achieved with the budget

<table>
<thead>
<tr>
<th>Program Area</th>
<th>Current LRTP Allocation</th>
<th>Final Committee Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Funding Split</td>
<td>2035 Performance</td>
</tr>
<tr>
<td>Transit</td>
<td>21%</td>
<td>Current System</td>
</tr>
<tr>
<td>Pavement Preservation</td>
<td>21%</td>
<td>57% in good or fair condition</td>
</tr>
<tr>
<td>Bridge Preservation</td>
<td>6%</td>
<td>100% in good or fair condition</td>
</tr>
<tr>
<td>Highway Expansion</td>
<td>10%</td>
<td>2.6 hours of delay per 1,000 VMT</td>
</tr>
<tr>
<td>Safety</td>
<td>0.5%</td>
<td>0.74 fatalities per 100 million VMT</td>
</tr>
<tr>
<td>Nonmotorized</td>
<td>0.5%</td>
<td>44% of people and jobs within ½ mile</td>
</tr>
<tr>
<td>Road Operations</td>
<td>41%</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Performance framework organized around Key Decision Points (KDPs) in the long-range plan development process to evaluate potential investment scenarios.
Experience Around the U.S.: Metropolitan Transportation Commission (MTC)

- Incorporated as part of long-range plan development process
- Tested three scenarios of alternative infrastructure investment packages
  - Program of freeway operations strategies
  - Regional High Occupancy Toll (HOT) lane network with bus enhancements
  - Extensive rail and ferry expansion.
Performance-based planning is found across published research and a frequent topic in professional dialogue, but the state-of-the-practice varies widely.

Some agencies that have limited data analysis and reporting capabilities, others are applying it in resource allocation decisions.

Most agencies fall in the middle – they have some level of predictive capability and a commitment to using performance data to improve the effectiveness of their system and/or agency.
<table>
<thead>
<tr>
<th>Goal Area</th>
<th>Measure Only</th>
<th>Measures and Targets</th>
<th>Neither</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preservation</td>
<td>3</td>
<td>17</td>
<td>1</td>
</tr>
<tr>
<td>Freight/Economics</td>
<td>6</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Safety</td>
<td>4</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>Congestion</td>
<td>8</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>System Operations</td>
<td>6</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Environment</td>
<td>5</td>
<td>7</td>
<td>9</td>
</tr>
</tbody>
</table>

Based on 21 State DOT survey respondents, 2009 AASHTO CEO Forum
Incorporating a performance-based approach into planning and programming is an evolutionary process that does not happen in one revolutionary step.

Most successful performance-based planning programs start with a small number of goals and objectives tied to a discrete set of performance measures where data is readily available.

Designing and implementing performance-based planning begins with strategic planning: defining a clear set of goals, objectives, and agency initiatives to improve system performance.
Goals and measures in preservation, safety, and mobility/congestion are “tried and true”

Freight, accessibility, environment, and non-highway modes moderately common in reviewed performance-based planning practices

Livability/sustainability is still an “emerging” area
How do we make this happen?

*Determine Goals and Objectives*

- Identify regional transportation priorities
- Identify goals and more specific objectives based on the regional transportation priorities
- Align MAP-21 national goals to regional goals
How do we make this happen?

Select Performance Measures

- Adopt National measures
- Consider applicable state performance measures
- Add measures as necessary to cover all goals/objectives
  - Consider data and tool availability
  - Pull from best practices
  - Adjust for your regional needs
How do we make this happen?

Select Performance Measures (continued)

- **Value for Money**: Directly related to highway investment and policy, or other decision-making
- **Simple**: Understood by the public, key audience
- **Meaningful**: Reflects most important aspects of performance
- **Actionable**: Outcome-oriented (impact of actions and activities on actual system conditions/performance)
- **Realistic**: Not unduly burdensome to collect
- **Time-based**: Change within acceptable timeframe
How do we make this happen?

Set Targets for Key Measures

- Develop associated targets for key measures
  - Avoid “arbitrary” targets
  - Aspirational vs. realistic targets
  - Consider data/forecasting constraints

- Target setting approaches
  - No one method appropriate for all areas
    - Policy driven
    - Modeling
    - Consensus-based
    - Customer feedback
    - Benchmarks
Engage partners in target setting
   » Reach out to other practitioners
   » Work with stakeholders to build buy-in

Set both long-term and interim targets
   » Interim targets help to take temperature of where you want to be
   » Allow for one cycle of “testing” and adjustment before Federal requirements go in effect
How do we make this happen?

Allocate Resources

- Carry measures forward into the regional solicitation and TIP development process
  - Understanding that additional qualitative criteria may still be necessary
- Assess alternative investment priorities
- Prioritize projects within funding areas
- Use this information to inform decision-making process, not replace it
What if a region has priorities greater than those identified at the Federal level?

» National goals, measures, and targets are focused primarily on NHS

» Limited to a vital few

» Measures are basic, allowing for all states to report

Opportunities

» Possibly “weight” different goals or measures based on regional priorities

» Possibly use different measures for different functions
QUESTIONS