AASHTO Update on Performance Measures

Jim McDonnell, P.E.
Program Director, Engineering
AASHTO
Subcommittee on Bridges and Structures
May 18, 2011 – Norfolk, VA
• Standing Committee on Performance Management
  – Created: February 2008
  – Charge:
    • Provide State DOTs the expertise and resources to support performance-based management
    • Create a results-driven environment to maximize the performance of both transportation systems and organizations

• 11 task forces created
  – 9 technical task forces
  – 2 programmatic task forces
  – Each led by a member of the SCOPM
Technical Task Forces

• Technical task forces centered around:
  • Safety
  • Pavement Preservation
  • Bridge Preservation
  • Congestion/Operations
  • Connectivity

  • Environment
  • Freight/Economic Competitiveness
  • Transit
  • Livability

• Offered 2-4 performance indicators in each area
  – Working with stakeholders to ensure recommendations could be embraced as national performance metrics
  – Developed a tiered approach to implementation
AASHTO Reauthorization Proposal

2008 Reauthorization Proposal included a national performance measurement program focused on critical national transportation goals

- Focus attention on key national goals
- Build on the performance mgmt work already done in State DOTs
- Drive better performance through comparative PM program
- Make the case for a larger Federal program
- More transparency & accountability for the federal program


Source: AASHTO
Key elements of the program include:

- National goals set by Congress & Secretary of Transportation
- Performance measures established through a collaborative process
- Performance targets set in cooperation w/partners & stakeholders
- For each state, build on the work already done on performance measures
- Consistent monitoring & reporting of actual results

But do **NOT** include:

- Performance measures or targets established in legislation
- Tying performance measures and/or targets to funding
- Disincentives that penalize states
# Readiness Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Measures Ready for Deployment?</th>
</tr>
</thead>
<tbody>
<tr>
<td>General consensus on the definition of the measure</td>
<td>✓</td>
</tr>
<tr>
<td>Common or centralized approach to data collection in place</td>
<td>✓</td>
</tr>
<tr>
<td>Availability of consistent data across states established through a national comparative analysis or other research effort</td>
<td>✓</td>
</tr>
</tbody>
</table>
Performance Measure “Tiers”

• Tier 1 Measures
  – Meet all three criteria and are ready for deployment

• Tier 2 Measures
  – Meet one or two criteria, require further work before deployment

• Tier 3 Measures
  – Still in the proposal stage, require further study and stakeholder input before advancing
## Initial Set of Performance Measures

<table>
<thead>
<tr>
<th>Goal Area</th>
<th>Tier 1 Measures – Ready for Deployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>5-year moving average of the number of fatalities</td>
</tr>
<tr>
<td>Pavement Preservation</td>
<td>IRI on the NHS</td>
</tr>
<tr>
<td>Bridge Preservation</td>
<td>Deck area of structurally deficient bridges on NHS</td>
</tr>
<tr>
<td>Congestion/Operations</td>
<td>No initial measure</td>
</tr>
<tr>
<td>Connectivity</td>
<td>No initial measure</td>
</tr>
<tr>
<td>Environment</td>
<td>No initial measure</td>
</tr>
</tbody>
</table>
| Freight/Economic Competitiveness | Speed/travel time on freight corridors  
 Reliability on freight corridors |
| Transit                        | No initial measure                                                            |
| Livability                     | No initial measure                                                            |

*Source: AASHTO*
• **Tier 3 Measure** (i.e., still in proposal stage):

  “*Structural Adequacy of NHS Bridges*”

  – Proposed as a combined calculation of various component ratings

  – NBI could be used as initial data set

  – Ratings would need to be weighted

  – Eventually envisioned to transition to element-level inspection data
Comparative Performance Measurement Projects

Technical Standards and Guidance
NCHRP 20-24(37)G

- Tier 1 measure definitions, calculation methods, reporting formats
- Actions needed to progress Tiers 2 & 3
- Implementation guidance for nationwide performance program implementation
Future Activities

• Complete technical guidance through NCHRP
• Adopt technical guidance framework for each of the goal areas and performance measures
• Support state data collection efforts
• Operationalize/implement the use of national performance measures in the decision-making process
• SCOPM will look at the integration of other modes in the performance measures
Thank you

Jim McDonnell, P.E.
Program Director, Engineering
AASHTO

jimm@aashto.org