MAP-21: The Next Generation of MPO Performance-Based Planning

Steve Heminger - January 12, 2014
Metropolitan Transportation Commission
TRANSPORTATION RESEARCH BOARD ANNUAL MEETING
1. Enhancing Existing Performance Processes: Planning, Programming, and Monitoring

2. Challenges in Setting Short-Term Targets: Correlations and Complications

3. Opportunities for Collaboration: Engaging States and MPOs on Target-Setting
Over the past decade, many metropolitan planning organizations have deeply integrated performance into their planning and programming processes.

MAP-21 represents the next generation of performance assessment for metropolitan areas, in which MPOs can build upon a consistent framework of national performance measures.
TYPICAL MPO PERFORMANCE ACTIVITIES

- Performance Monitoring
- Performance-Based Planning
- Performance-Based Programming
Performance-Based Planning: Notable MPO Examples

- MPOs commonly use a set of regional performance measures to evaluate alternative planning scenarios, which will be supplemented by the federal MAP-21 measures in the coming years.
  - SANDAG (San Diego) has a particularly robust set of performance measures - over 80 in their most recent long-range plan.

- While mobility-oriented transportation performance measures dominated long range plans of prior decades, recent plans from across the country have a greater focus on land use, social equity, and the environment.
  - DVRPC (Philadelphia) has done extensive work highlighting performance differences between sprawl and focused growth patterns as part of a performance-based scenario analysis.

- While selecting measures is relatively common, setting numeric targets is relatively rare.
  - MTC (San Francisco) is one of the few major MPOs that has board-adopted numeric targets for every regional performance measure.
Performance-Based Planning: Notable MPO Examples

Project Performance Assessment: Results by Project Type

Bubble size represents the total annual benefits for all projects of that type.

- Road Project
- Transit Project
- Regional Program

Benefits/Cost

Adverse Impact on Targets

Supports Targets
In California, all metropolitan planning organizations must now demonstrate performance benefits - for over 30 consistent statewide metrics - associated with State Transportation Improvement Program investments when requesting their biannual funding.
Performance Monitoring: Notable MPO Examples

• When monitoring regional performance, agencies are now trying to “take the pulse” of the overall region, rather than just gauging the effectiveness of the transportation system in isolation.
  • CMAP’s (Chicago) MetroPulse tracks progress towards economic development, livable communities, and efficient governance - in addition to traditional mobility objectives.

• Interactive web-based tools allow the public to become much more engaged with day-to-day regional monitoring.
  • SCAG (Los Angeles) has developed a tool enabling residents to zoom in on their closest freeway corridor to view localized analyses of traffic congestion trends.

• Performance measurement professionals continue to respond to growing demand for monitoring data from policymakers and the public.
  • ARC (Atlanta) holds an annual planning summit timed to align with its yearly release of performance data, with representatives in attendance from all of the region’s counties and major cities.
While metropolitan areas across the country differ in many ways, MPOs will face similar challenges when identifying targets under MAP-21.
**Challenge 1: Performance Results Often Correlate with Economic Trends**

- Economic cycles often have significant impacts on performance results - affecting measures such as traffic congestion, system reliability, and vehicular collisions.

- Economic effects - clearly outside the control of an MPO or state agency - can easily overwhelm measurable improvements resulting from government policy decisions or specific investments.

- If federal performance measures correlate strongly with economic trends, it will be critical to understand these correlations when states & MPOs select numeric targets.
CHALLENGE 1: PERFORMANCE RESULTS OFTEN CORRELATE WITH ECONOMIC TRENDS

![Graph showing correlation between traffic congestion and unemployment rates from 2003 to 2011. The graph illustrates that as traffic congestion increases, unemployment rates also tend to rise, and vice versa.]

Challenge 2: Funding Limitations Hamper Ability to Achieve Targets

- Metropolitan areas and states across the country are challenged by limited funding in a time of growing maintenance backlogs.

- Rather than setting a target to reduce congestion, MPOs may be faced with setting more achievable goals (e.g. slowing the growth of congestion) which are more in line with funding realities.

- When funding limitations require agencies to set somewhat less ambitious targets, MPO staff will need to clearly communicate the justification to policymakers.
MTC’s latest long-range plan (Plan Bay Area) provides an example of how funding constraints can result in a planning effort falling short of its ambitious targets. Despite the fact that the Plan allocated 87% of its funding towards operations and maintenance of the existing system - an unprecedented level of investment for the Bay Area - it failed to achieve any of the state of good repair targets.

### MTC’s Plan Bay Area State of Good Repair Performance Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Baseline (2013)</th>
<th>Financially Constrained (2040)</th>
<th>Target (2040)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pavement condition index (for local streets)</td>
<td>66</td>
<td>68</td>
<td>75</td>
</tr>
<tr>
<td>Share of distressed lane-miles (for state highways)</td>
<td>27%</td>
<td>44%</td>
<td>10%</td>
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<tr>
<td>Share of assets past useful life (for public transit)</td>
<td>13%</td>
<td>24%</td>
<td>0%</td>
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</tbody>
</table>
CHALLENGE 3: DECISION-MAKING AUTHORITY IS WIDELY DISPERSED

- Performance measurement works best when a single entity is responsible for the success of a given measure or target.

- The dispersion of decision-making authority, common in the U.S. but less common abroad, makes it more challenging to achieve goals and maximize accountability.

- For starters, if USDOT sets a performance target to encourage non-auto use, wouldn’t it be nice if the U.S. tax code encouraged the same result?
MAP-21 represents an opportunity for states and metropolitan areas to engage in a thoughtful dialogue about ambitious yet achievable targets.
How Can States & MPOs Work Together to Maximize the Efficacy of MAP-21?

- Given all of the challenges related to target-setting - and the dispersal of authority between federal, state, regional, and local entities - close collaboration between states and MPOs will be critical to make the federal performance process meaningful.

- While MAP-21’s target-setting deadlines imply a “top-down” approach where states set targets and metropolitan areas follow, a more collaborative approach might be more effective for all stakeholders.

- MPOs should be active participants in the state target-setting process; a successful process could even develop state targets based on the sum of regional goals.
How Can States & MPOs Work Together to Maximize the Efficacy of MAP-21?

• MPOs should also begin their regional target-setting work as soon as performance measures are finalized; this will maximize consistency with state targets and provide time for necessary analyses related to economic impacts, funding constraints, etc.

• California’s target-setting process to comply with the requirements of Senate Bill 375 may be an effective blueprint for MAP-21 target-setting in our state and across the country.

• By developing the Regional Targets Advisory Committee (RTAC) to seek regional input on realistic greenhouse gas targets, the state was able to align differing regional targets with an overall state mandate; this effort resulted in productive dialogue between urban and rural regions and between key stakeholders.
What Can MPOs Do in 2014 to Prepare for MAP-21 Performance Measures?

1. Strengthen existing interagency relationships with state DOTs and discuss opportunities for collaborative target-setting in the coming years.

2. Carefully review the proposed federal performance measures as part of the rulemaking process and provide feedback to USDOT on potential areas for improvement.

3. Begin examining performance data related to potential measures to identify a reasonable range of numeric targets for your region.

4. Brief policymakers on the target-setting process slated for 2015 and 2016 and highlight some of the inherent challenges in setting these targets.
While much of the coming year will be focused on the proposed national measures, the target-setting process for states & MPOs is about to set sail.