

SYSTEMS OPERATIONS:

AASHTO'S Six Performance Categories
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System Operations performance is measured by the operational efficiency and reliability provided by the existing system. The focus is on improving system operations through a broad range of operational strategies, rather than through investments in new capacity alone:

Possible System Operation Measure Considerations by Task Force

Incident Management Clearance Time

Incident management can include all types of events that lead to a highway closure to reduced speeds. Examples of incidents could include; crashes, snow and ice, flooding, fog, rock slides, etc.

- Urban suggestions
 - Travel Time Reliability (Perhaps consider that this measure also be used for measuring congestion but used for operations when operating speeds are reduced due to inclement weather or an incident).
 - Time to achieve bare pavement per 2 inches of snow
 - Time of clearance per snow event x number of lanes impacted per year
- Rural suggestions
 - Weather related
 - Roadway closure index=
$$\frac{\text{Number of Lane Miles} \times \text{Hours}}{\text{Total Lane Miles}}$$
 - This could measure the specific lengths of closure with regard to time and miles.
 - Roadway closure index without miles, using just hours (see ND example below)
 - If only a portion of the interstate is closed then in reality the entire system loses its connectivity to other systems

Overall Customer Satisfaction Survey

The majority of states administer customer satisfaction surveys. The surveys could possibly be modified to incorporate questions to align with the six proposed national goals and associated performance measures. Here are two possible approaches;

- Use the National Household Travel Survey

- Currently it is administered every 7 years, and only represents 14 states and 6 MPO's in the 2008 survey
- The current survey does not break out any operational questions, mainly demographic/type of use questions
- It would need to be administered more frequently

- Request that each state implement specific questions when administering their customer satisfaction surveys.
 - Satisfaction could be gauged by the expectations of the customers and stakeholders for each specific state being that different areas may have different levels of expectations

- An example of 2008 NDDOT survey questions and results;
 - The survey is administered using a grading criteria of;
 - Very Satisfied, Satisfied, Neutral, Dissatisfied, Very Dissatisfied, Don't Know
 - Specific questions are;
 1. How satisfied are you with traffic flow through construction work zones?
 2. How satisfied are you with the effectiveness of highway snow and ice removal?
 3. How satisfied are you with the timeliness of highway snow and ice removal?
 4. How satisfied are you with the removal of debris from the roadway and litter from ditches and median?