BRTB

Baltimore Regional Transportation Board

Resolution on Proposed Regional Targets for Travel Time Reliability Performance

October 23, 2018

BMC

System Performance Measures

- **State DOTs and MPOs are required to assess the performance of the NHS under the National Highway Performance Program (NHPP)**
- **Two measures are related to Level of Travel Time Reliability (LOTTR):**
  - percent of person-miles traveled on the Interstate System that are reliable
  - percent of person-miles traveled on the Non-Interstate NHS that are reliable
- **One freight-related measure (TTTR):**
  - The Truck Travel Time Reliability (TTTR) Index is a ratio showing Interstate System mileage providing for reliable truck travel times
- **RITIS data from University of Maryland's CATT Lab**

Importance of Travel Time Reliability

- Increasing portion of funding going toward asset management
- Less funding for traditional capacity-adding projects
- Important to try to address traffic congestion through operational approaches – as part of the overall Congestion Management Process, all TMA regions are required to follow
- Travel time reliability measures and targets can help regions assess how well strategies from the Congestion Management Process are working
- Travel time reliability measures and targets can help drivers and freight shippers in planning their trips

Travel Time Reliability Targets

- State DOTs are required to set performance targets for travel time reliability by May 20, 2018
- MPOs are required to set performance targets for travel time reliability by November 16, 2018
- MPOs can adopt their state's targets or set their own regional targets
- The Technical Committee recommends adopting state targets for travel time reliability, at least for this first reporting period

Travel Time Reliability Targets – Methodology

LOTTR – expressed as a threshold (percentage)

- 80th percentile travel time divided by 50th percentile travel time
- A ratio < 1.5 indicates “reliable” condition
- e.g., if 80th percentile = 45 minutes and 50th percentile = 30 minutes, then 45 minutes / 30 minutes = 1.5
- What percentage of the system is operating in this reliable condition (e.g., a trip that normally takes 30 minutes will take no longer than 45 minutes)?

Travel Time Reliability Targets – Methodology

TTTR – expressed as an index (average)

- 95th percentile travel time divided by 50th percentile travel time
- e.g., if 95th percentile = 55 minutes and 50th percentile = 30 minutes, then 55 minutes / 30 minutes = 1.83
- FHWA decided not to apply a reliable condition threshold of 1.5. Instead, this method determines the average of the segments measured.
- Why different upper percentiles (80th for LOTTR and 95th for TTTR)?
- From final rule: "FHWA believes that the 95th percentile travel time needs to be considered in the freight measure to account for the events that could impact on-time delivery as shippers, carriers, and receivers desire on-time/just-in-time delivery of goods and plan their trips by building in enough time to meet delivery requirements. For these reasons, FHWA elected to maintain the 95th percentile in the truck reliability calculation."

Travel Time Reliability Targets for the Baltimore Region

- **The Technical Committee recommends adopting state targets for travel time reliability:**

Performance Measure	2-Year Targets (2019)	4-Year Targets (2021)
LOTTR (Interstate) measure: Percent of person-miles traveled on the Interstate System that are reliable	72.1%	72.1%
LOTTR (non-Interstate) measure: Percent of person-miles traveled on the non-Interstate NHS that are reliable	Not applicable	81.7%
TTTR Index: Ratio showing Interstate System mileage providing for reliable truck travel times	1.87	1.88