



EAST-WEST GATEWAY
Council of Governments

Creating Solutions Across Jurisdictional Boundaries

Memo to: Board of Directors
From: Staff
Subject: 2023 Regional System Reliability Targets
Date: May 18, 2023

The Fixing America's Surface Transportation (FAST) Act was signed into law on December 4, 2015 and guides how project planning and programming is conducted by state departments of transportation (DOTs) and metropolitan planning organizations (MPOs). The FAST Act continues the National Highway Performance Program (NHPP) established under the Moving Ahead for Progress in the 21st Century Act (MAP-21) which establishes a performance-driven, outcome-based planning and programming process. The requirements of MAP-21 were reaffirmed by the Infrastructure Investment and Jobs Act (IIJA) signed into law on November 15, 2021. These performance targets are intended to ensure state DOTs and MPOs invest resources in transportation projects that make progress toward the achievement of national goals.

State DOTs and MPOs are given separate responsibilities for establishing performance targets and using a set of performance measures to track progress toward meeting those targets for system reliability performance measures. MPOs can choose to adopt the state DOT targets or adopt their own. EWG has chosen to review state targets and plans to set and adopt regional targets based on regional trends.

System Reliability

The system reliability performance measures that state DOTs and MPOs are required to establish quantitative targets for include:

- 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
- Truck travel time reliability index

The level of travel time reliability (LOTTR) is defined as the ratio of longer travel times (80th percentile) to a "normal" travel time (50th percentile) for a given roadway segment. The measure is the percentage of person-miles (vehicle miles multiplied by occupancy) traveled on the NHS where this ratio is less than 1.5, which is considered reliable. Roadways are considered reliable when travel time varies little between free-flow and congested times of the day. Using person miles rather than vehicle-miles gives equal weight to all individuals using the roads. This measure is calculated using data from the FHWA's National Performance Management Research Data Set (NPMRDS).

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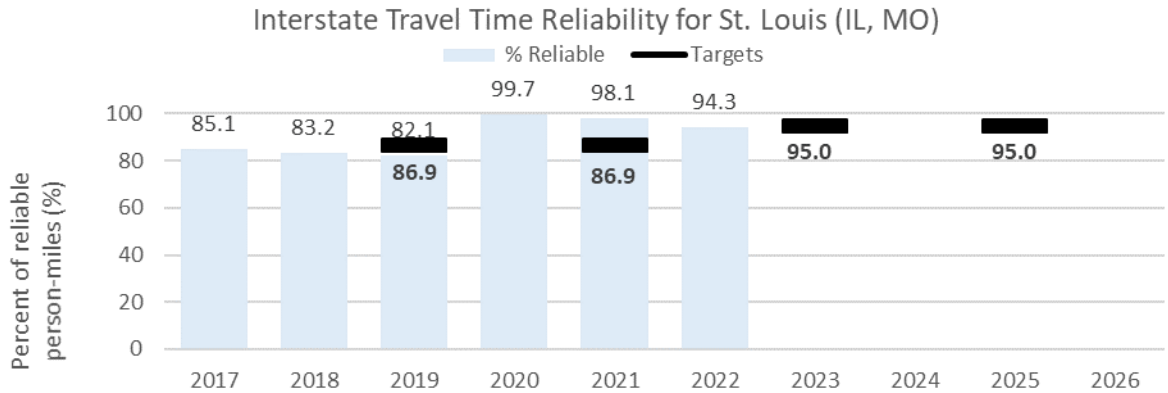
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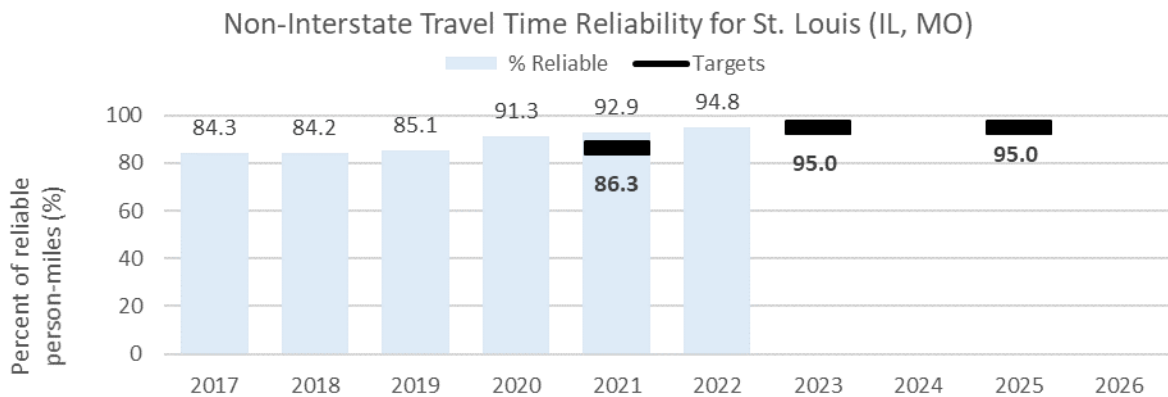
Executive Director

James M. Wild

The percentage of reliable person-miles traveled on the interstate did not hit the target of 86.9% in 2019 (82.1%) but surpassed it in 2021 (98.1%), as a result of reduced vehicle miles traveled during the 2020 pandemic and the subsequent increase in remote work. Targets in 2023 and 2025 are established at 95.0%, thus maintaining a high level of reliability on interstates.



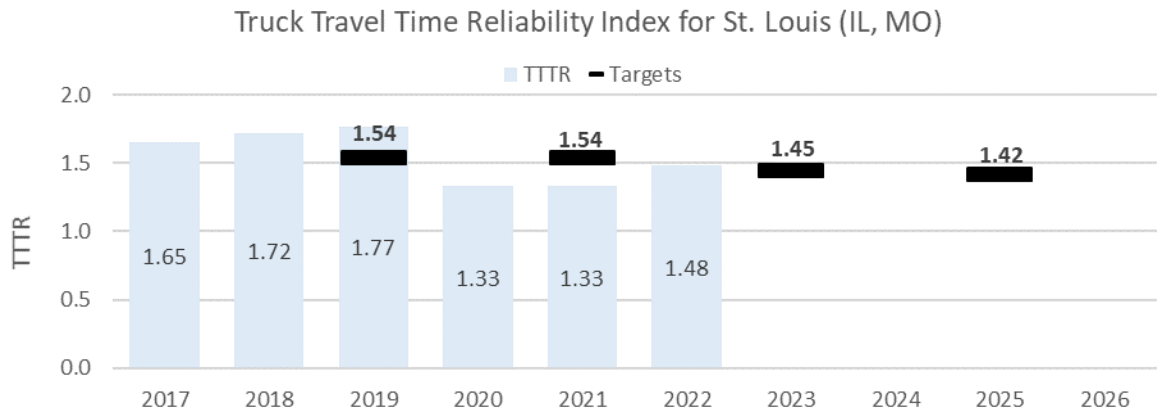
Similarly, the percentage of reliable person-miles traveled on the non-interstate NHS exceeded the projected target of 86.3% in 2021 (92.9%),¹ potentially due to similar factors of reduced VMT during the pandemic and a rise in remote work. Targets in 2023 and 2025 are established at 95.0%, thus maintaining a high level of reliability on non-interstate NHS roadways.



Truck travel time reliability (TTTR) is defined as the ratio of the longer travel times (95th percentile) to a “normal” travel time (50th percentile) for a given segment on the interstate

¹ the non-interstate target was not required for 2019.

system. Higher values for this measure indicate that interstate travel is more unpredictable for local and national freight companies. This measure is calculated using data from NPMRDS. Truck travel time reliability (TTTR) index exceeded the 2019 target of 1.54 (1.77) and was lower than the target of 1.54 in 2021 (1.33). This outcome can be attributed to the effects of the pandemic in 2020, but after 2022, there is uncertainty in how the lasting effects of the pandemic will continue to affect this trend. Future targets are set at 1.45 in 2023 and 1.42 in 2025 to achieve a desired trend of lowering the TTTR to improve freight reliability.



Overall, targets for reliable person-miles traveled on the interstate and non-interstate NHS roadways are established at a stable 95% due to the desire to maintain the high level of reliability on the region’s roadways. Due to the critical importance of the freight industry in the region, a slowly declining target is established for truck travel time reliability.

System Reliability Targets			
Measure	Baseline (2022)	2-Year Target (2023)	4-Year Target (2025)
Percent of reliable person-miles traveled on the Interstate	94.3%	95.0%	95.0%
Percent of reliable person-miles traveled on the non-interstate NHS	94.8%	95.0%	95.0%
Truck travel time reliability index	1.48	1.45	1.42

Staff Recommendation: Staff recommends approval of 2023 performance targets for system reliability.