
Technical Advisory Committee

Thursday, February 9, 2023

Regular Session

Item H5

Approval of Recommendation of MPO Targets for System Operations Performance Measures

Staff Contact: Allan Zafft, MPO Program Manager

TAC Agenda Report
February 9, 2023

Agenda Item No. H5

ISSUE

VOTE: MPO Targets for System Operations Performance Measures

BACKGROUND

The Federal Highway Administration requires State Department of Transportations (DOTs) and Metropolitan Planning Organizations (MPOs) to adopt targets for three performance measures every four years relating to system operations performance. Two of the three performance measures are for National Highway System (NHS) Travel Time Reliability, and one performance is for Freight Reliability (see attached fact sheets). State DOTs were required to establish performance targets for these measures by December 16, 2022. MPOs have the option of supporting the statewide targets, or establishing their own regional targets within 180 days of the establishment of state targets. After two years there will be a mid-point review, at which point the targets could be adjusted for NDOT and Nebraska MPOs based on collected data.

The Grand Island Area Metropolitan Planning Organization (GIAMPO) approved to support the state's system operations performance targets for the 4-year period of 2018 to 2021.

GIAMPO staff recommends to support the NDOT targets for system operations performance measures for the 4-year period of 2022 to 2025 (see attached NDOT System Operations Performance Measures) as the most prudent and feasible alternative. The core reasons to not establishing regional targets include the following:

- For the 4-year period of 2018 to 2021, Nebraska's actual performances met the adjusted 4-year targets for the three performance measures.
- GIAMPO region outperformed the State on all performance measures for the 4-year period of 2018 to 2021.
- The Interstate and Non-Interstate NHS routes in the GIAMPO metropolitan planning area are State NHS routes.
- The statewide 2022 baselines for the performance measures meet the 2-year and 4-year targets for the 4-year period of 2022 to 2025. The baselines are the following:
 - 98.8% of the person-miles traveled on the Interstate that are reliable
 - 96.2% of the person-miles traveled on the Non-Interstate NHS that are reliable
 - 1.14 for the Truck Travel Time Reliability (TTTR) Index

POLICY CONSIDERATIONS/DISCUSSION

Federal regulations require State DOTs and MPOs to adopt targets for system operations performance.

With supporting the statewide targets for the 4-year period of 2022 to 2025, GIAMPO is agreeing to plan and program projects in a manner that contributes towards the accomplishment of the NDOT system operations performance targets.

BUDGET CONSIDERATIONS

None.

COMMITTEE ACTION

None.

RECOMMENDATION

Approve to support the NDOT targets for system operations performance measures for the 4-year period of 2022 to 2025.

STAFF CONTACT

Allan Zafft

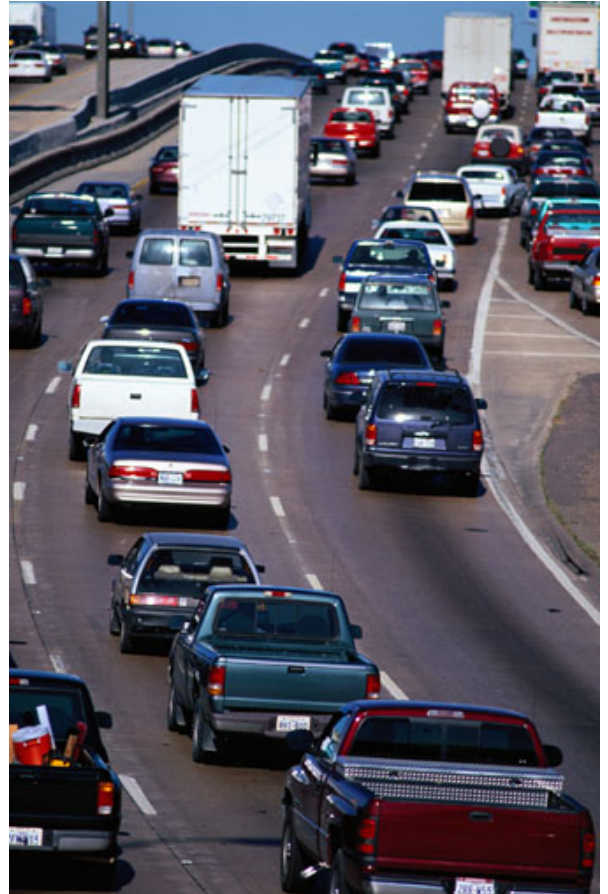
TRANSPORTATION PERFORMANCE MANAGEMENT

The Federal Highway Administration (FHWA) has finalized six interrelated performance rulemakings to implement the TPM framework established by the Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation (FAST) Act.

Collectively, the rules address challenges facing the U.S. transportation system, including:

- improving safety
- maintaining infrastructure condition
- reducing traffic congestion
- improving efficiency of the system and freight movement
- protecting the environment and
- reducing delays in project delivery.

The rules establish national performance measures; State Departments of Transportation (DOTs)



and metropolitan planning organizations (MPOs) will establish targets for applicable measures. New and existing plans will document the strategies and investments used to achieve the targets; progress toward the targets will be reported through new and existing mechanisms.

Learn more at the FHWA TPM web site:
(<http://www.fhwa.dot.gov/tpm/>)



U.S. Department of Transportation
Federal Highway Administration

NHS Travel Time Reliability Measures



WHAT: Measurement of travel time reliability on the Interstate and non-Interstate National Highway System (NHS). Read the final rule in the [Federal Register](#) [82 FR 5970 (January 18, 2017)].

WHO: State DOTs, as well as MPOs with Interstate and/or non-Interstate NHS within their metropolitan planning area.

WHY: Through MAP-21, Congress required FHWA to establish measures to assess performance in 12 areas, including performance on the Interstate and non-Interstate NHS. [See 23 CFR 490.507(a)]

WHEN: Implementation differs for the Interstate and non-Interstate NHS measures for the first performance period. State DOTs must establish 2- and 4-year targets for the Interstate, but only a 4-year target for the non-Interstate NHS, by **May 20, 2018**. Those targets will be reported in the State's baseline performance period report due by **October 1, 2018**. The State DOTs have the option to adjust 4-year targets in their mid performance period progress report, due **October 1, 2020**. For the first performance period only, there is no requirement for States to report baseline condition/performance or 2-year targets for the non-Interstate NHS before the mid performance period progress report. This will allow State DOTs to consider more complete data. The process will align for both Interstate and non-Interstate measures with the beginning of the second performance period on **January 1, 2022**.

MPOs must either support the State target or establish their own quantifiable 4-year targets within 180 days of the State target establishment.

HOW: Level of Travel Time Reliability (LOTTR) is defined as the ratio of the longer travel times (80th percentile) to a "normal" travel time (50th percentile), using data from FHWA's National Performance Management Research Data Set (NPMRDS) or equivalent. Data are collected in 15-minute segments during all time periods between 6 a.m. and 8 p.m. local time. The measures are the percent of person-miles traveled on the relevant portion of the NHS that are reliable. Person-miles take into account the users of the NHS. Data to reflect the users can include bus, auto, and truck occupancy levels.

Note: The FHWA is preparing guidance on how all rules should be implemented.



U.S. Department of Transportation
Federal Highway Administration

Note - The above dates in 2018 and 2020 relate to the first performance period of 2018 to 2021.

Freight Reliability Measure



WHAT: Measurement of travel time reliability on the Interstate System (Truck Travel Time Reliability (TTTR) Index). Read the final rule in the [Federal Register](#) [82 FR 5970 (January 18, 2017)].

WHO: State DOTs and MPOs.

WHY: Through MAP-21, Congress required FHWA to establish measures to assess performance in 12 areas, including freight movement on the Interstate. The measure considers factors that are unique to this industry, such as the use of the system during all hours of the day and the need to consider more extreme impacts to the system in planning for on-time arrivals. [23 CFR 490.607]

WHEN: State DOTs must establish 2- and 4-year targets by **May 20, 2018**. Those targets will be reported in the State's baseline performance period report due by **October 1, 2018**. The State DOTs have the option to adjust 4-year targets in their mid performance period progress report, due **October 1, 2020**.

MPOs must either support the State target or establish their own quantifiable 4-year targets within 180 days of the State target establishment.

HOW: Freight movement will be assessed by the TTTR Index. Reporting is divided into five periods: morning peak (6-10 a.m.), midday (10 a.m.-4 p.m.) and afternoon peak (4-8 p.m.) Mondays through Fridays; weekends (6 a.m.-8 p.m.); and overnights for all days (8 p.m.-6 a.m.). The TTTR ratio will be generated by dividing the 95th percentile time by the normal time (50th percentile) for each segment. The TTTR Index will be generated by multiplying each segment's largest ratio of the five periods by its length, then dividing the sum of all length-weighted segments by the total length of Interstate.

State DOTs and MPOs will have the data they need in FHWA's National Performance Management Research Data Set (NPMRDS) as data set includes truck travel times for the full Interstate System. State DOTs and MPOs may use an equivalent data set if they prefer.

Note: The FHWA is preparing guidance on how all rules should be implemented.



U.S. Department of Transportation
Federal Highway Administration

Note - The above dates in 2018 and 2020 relate to the first performance period of 2018 to 2021.

NDOT System Operations Performance Measures
Performance Period 2022-2025

Performance Measure	Baseline	2-Year Target	4-Year Target
Percent of the Person-Miles Traveled on the Interstate That Are Reliable	98.8%	98.5%	98.5%
Percent of the Person-Miles Traveled on the Non-Interstate NHS That Are Reliable	96.2%	92.0%	92.0%
Truck Travel Time Reliability (TTTR) Index	1.14	1.20	1.20