PERFORMANCE BASED PLANNING & PROGRAMMING

National Highway System & Freight and Pavement & Bridge Performance Measures – Draft Targets

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National Highway System & Freight: Overview of Performance Measures

	Performance Measures
National Highway System	**Interstate Travel Time Reliability (TTR)** - Percent of person-miles traveled on the Interstate System that are reliable
	NHS (Non-Interstate) Travel Time Reliability (TTR) - Percent of person-miles traveled on the non-Interstate National Highway System (NHS) that are reliable

	Performance Measures
Freight Movement	**Freight Reliability (TTTR)** - Measurement of travel time reliability on the Interstate System using a Truck Travel Time Reliability (TTTR) Index.

National Highway System & Freight – Target Requirements

- State DOTs must establish **two** and **four-year targets** (2019 and 2021 respectively) for the Interstate TTR and the TTTR, but only a four-year target for the Non-Interstate NHS, by May 20, 2018

- MPOs have 180 days from the establishment of state DOT targets to either support or establish their own **four-year targets** for the measures

- All TTR/TTTR targets will be reported in the states' baseline performance period reports due to FHWA by October 1, 2018
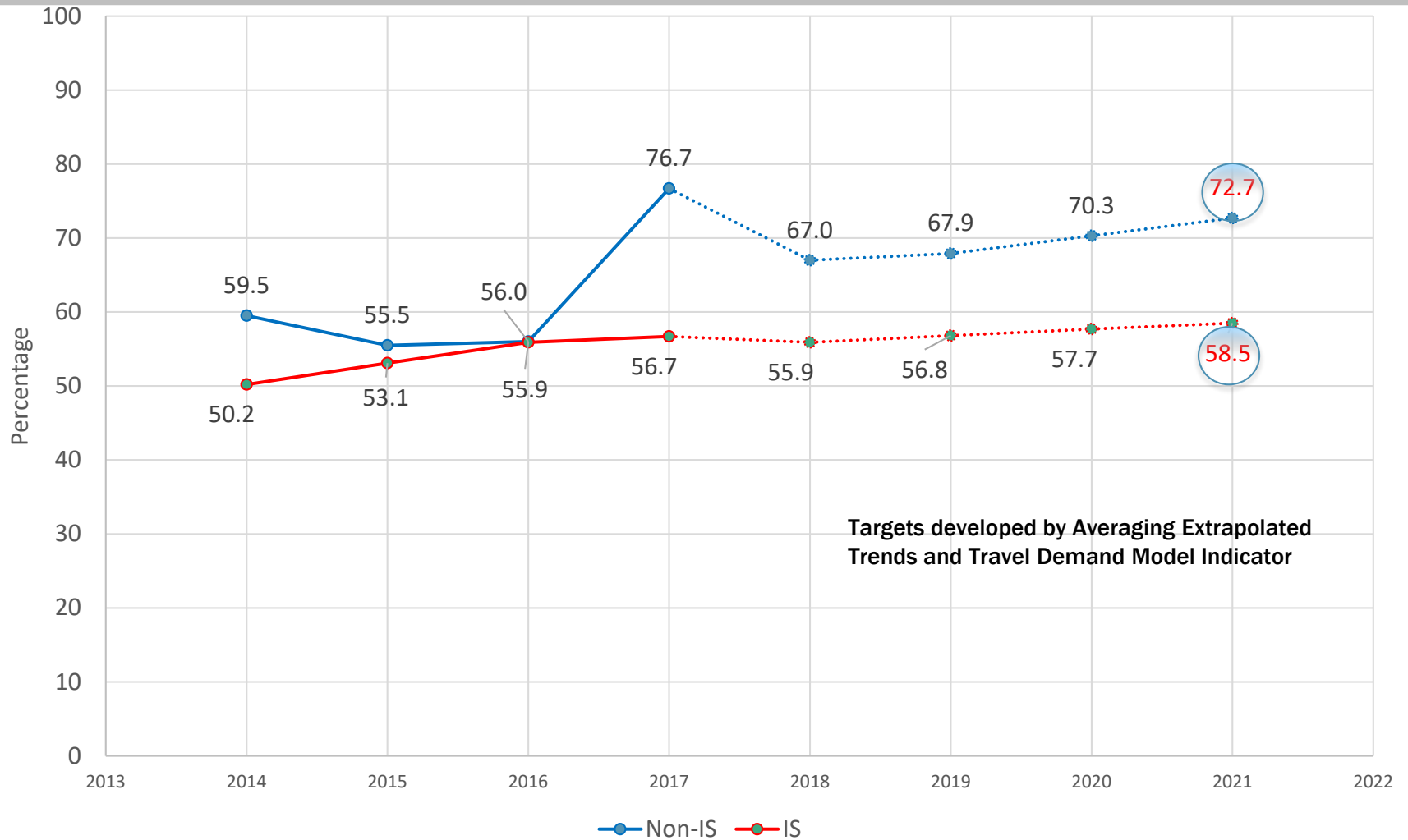
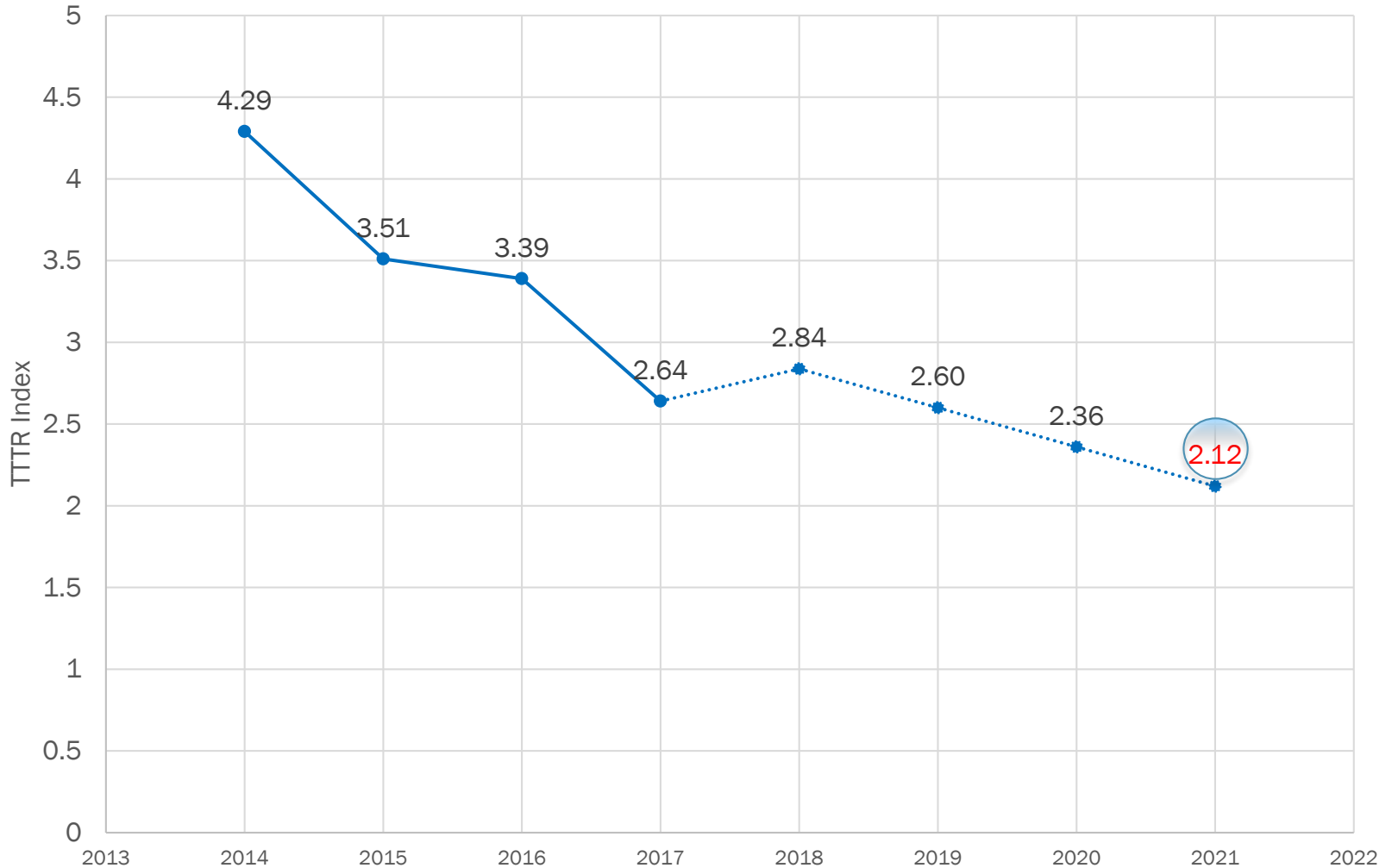# Travel Time Reliability (TTR) & Truck Travel Time Reliability (TTTR) Data

- Data is collected through the National Performance Management Research Data Set (NPMRDS)
  - Procured and sponsored by the Federal Highway Administration (FHWA), this is the designated source for TTR/TTTR data
  - It is an archived speed and travel time data set (including associated location data) covering the National Highway System (NHS)
  - Data available at 5 minute intervals for Passenger vehicles, Trucks, and Trucks and Passenger vehicles combined

- Travel Time Reliability (TTR): the percent of person-miles for which the ratio of a longer travel time (80th percentile) to a "normal" travel time (50th percentile) is < 1.5 for the reporting segment

- Truck Travel Time Reliability (TTTR) Index: the ratio of a longer travel times (95th percentile) to a "normal" travel time (50th percentile)

TTR: Recent Data and Short Term Forecast (Target)

Targets developed by Averaging Extrapolated Trends and Travel Demand Model Indicator

Non-IS: 59.5, 55.5, 56.0, 76.7, 67.0, 67.9, 70.3, 72.7

IS: 50.2, 53.1, 55.9, 56.7, 55.9, 56.8, 57.7, 58.5

TTTR Index: Recent Data and Short Term Forecast (Target)

Regional Highway System and Freight – Draft Targets

	CY 2018 – 2021 Four Year Target
TTR – Interstate Percent of person-miles traveled on the Interstate System that are reliable	**58.5%**
TTR – Non-Interstate NHS Percent of person-miles traveled on the non-Interstate NHS that are reliable	**72.7%**
TTTR Index Ratio of the Interstate System Mileage providing for Reliable Truck Travel Times	**2.12**

Pavement and Bridge Condition Performance Measures

Performance Measures
(1) Percentage of pavements on the **Interstate** System in **Good** condition
(2) Percentage of pavements on the **Interstate** System in **Poor** condition
(3) Percentage of pavements on the **NHS** (excl. Interstate System) in **Good** condition
(4) Percentage of pavements on the **NHS** (excl. Interstate System) in **Poor** condition
(5) Percentage of **NHS Bridges** Classified as in **Good** Condition
(6) Percentage of **NHS Bridges** Classified as in **Poor** Condition

Pavement and Bridge – Target Requirements

- Pavement: measurement of the condition (**good** or **poor**) of pavement on both the Interstate and Non-Interstate roadways on the NHS
  - For Pavement, State DOTs established **two** and **four-year targets** (2019 and 2021 respectively) for the NHS (Non-Interstate) roadways, but only a **four-year target** for the Interstate NHS, by May 20, 2018

- Bridge: Measurement of the bridge deck area condition (**good** or **poor**) for all bridges on the NHS
  - For Bridges, State DOTs established **two** and **four-year targets** for the bridge deck condition by May 20, 2018

- MPOs must either support the State targets or establish their own quantifiable **four-year targets** within 180 days

- All Pavement and Bridge targets will be reported in the states' baseline performance period reports due to FHWA by October 1, 2018

Pavement and Bridge Measures – Data

- Pavement: data is reported annually by State DOTs into the Highway Performance Monitoring System (HPMS)

- Bridge: data is reported annually by State DOTs into the National Bridge Inventory (NBI)

- TPB staff accessed this data to determine performance for the region for the pavement and bridge performance measures

- A map site for the pavement and bridge conditions has been developed: https://gis.mwcog.org/webmaps/tpb/pbpp/pavement_bridge/

Regional Pavement – Draft Targets

Interstate	CY 2018 – 2021 Four Year Target
(1) Percentage of pavements on the **Interstate** System in **Good** condition	**52.7%**
(2) Percentage of pavements on the **Interstate** System in **Poor** condition	**1.7%**

NHS (Non-Interstate)	CY 2018 – 2021 Four Year Target
(3) Percentage of pavements on the **NHS** (excl. Interstate) in **Good** condition	**31.1%**
(4) Percentage of pavements on the **NHS** (excl. Interstate) in **Poor** condition	**7.0%**

- The pavement targets for the state DOTs are based primarily on an assessment of future budget allocations for maintaining a state of good repair
- Regional targets were developed by taking the state DOT targets and applying them to the lane miles in the TPB planning area for each state

Regional Bridges – Draft Targets

Bridges	CY 2018 – 2021 Four Year Target
(5) Percentage of **NHS Bridges** Classified as in **Good** Condition	**29.8%**
(6) Percentage of **NHS Bridges** Classified as in **Poor** Condition	**3.5%**

- The bridge targets for the state DOTs are based primarily on an assessment of future budget allocations for maintaining a state of good repair

- Regional targets were developed by taking the state DOT targets and applying them to the bridge deck area in the TPB planning area for each state

Next Steps – TPB

- Receive and respond to comments on draft targets

- TPB adopts targets at July 18 meeting

- MPO provide all targets to state DOTs for inclusion in Baseline Period Performance reports to be submitted to FHWA by October 1, 2018

- Inclusion of targets in the System Performance report for Visualize 2045

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TPB Area: Summary of TTR Data for Interstate and Non-Interstate NHS

TTR Performance	2014	2015	2016	2017
Interstate Percent of person-miles traveled on the Interstate System that are reliable	50.2%	53.1%	55.9%	56.7%
Non-Interstate NHS Percent of person-miles traveled on the non-Interstate NHS that are reliable	59.5%	55.5%	56.0%	76.7%

TTTR Performance	2014	2015	2016	2017
Interstate Ratio of the Interstate System Mileage providing for Reliable Truck Travel Times	4.29	3.51	3.39	2.64

District of Columbia Pavement Targets

- District of Columbia targets were established on May 20

- Statewide target percentage was applied to the total lane miles of both the Interstate and Non-Interstate roadways on the NHS

Interstate	CY 2018 – 2020 Two Year Target	CY 2018 – 2022 Four Year Target
Percent Good	10%	5%
Percent Poor	5%	5%

NHS (Non-Interstate)	CY 2018 – 2020 Two Year Target	CY 2018 – 2022 Four Year Target
Percent Good	67%	54%
Percent Poor	7.1%	14.1%

Maryland Sub-Region Pavement Targets

- Maryland targets were established on May 20.

- Sub-region targets at the county level were provided to TPB staff

- The Sub-region target percentage was applied to the total lane miles of both the Interstate and Non-Interstate roadways on the NHS

Interstate	CY 2016 – 2018 Two Year Target	CY 2016 – 2020 Four Year Target
Percent Good	Not Required	62.8%
Percent Poor	Not Required	0.3%

NHS (Non-Interstate)	CY 2016 – 2018 Two Year Target	CY 2016 – 2020 Four Year Target
Percent Good	32.4%	31.6%
Percent Poor	6.5%	7.2%

Virginia State Pavement Targets

- Virginia statewide targets were established on May 20

- Statewide target percentage was applied to the total lane miles of both the Interstate and Non-Interstate roadways on the NHS

Interstate	CY 2018 – 2019 Two Year Target	CY 2018 – 2021 Four Year Target
Percent Good	45%	45%
Percent Poor	<3%	<3%

NHS (Non-Interstate)	CY 2018 – 2019 Two Year Target	CY 2018 – 2021 Four Year Target
Percent Good	25%	25%
Percent Poor	<5%	<5%

District of Columbia Bridge Targets

- District of Columbia targets were established on May 20

Bridges	CY 2018 – 2020 Two Year Target	CY 2018 – 2022 Four Year Target
Deck Area Good	15.8%	24.9%
Deck Area Poor	8.6%	4.1%

- Statewide target percentage was applied to the bridge deck area condition (good or poor) for all bridges carrying NHS

Maryland State Bridge Targets

- Maryland targets were established on May 20.

Bridges	CY 2018 – 2019 Two Year Target	CY 2018 – 2021 Four Year Target
Deck Area Good	29.5%	27%
Deck Area Poor	2%	5%

- Statewide target percentage was applied to the bridge deck area condition (good or poor) for all bridges carrying NHS in the region

Virginia State Bridge Targets

- Virginia targets were established on May 20

Bridges	CY 2018 – 2019 Two Year Target	CY 2018 – 2021 Four Year Target
Deck Area Good	33.5%	33%
Deck Area Poor	3.5%	3%

- Statewide target percentage was applied to the bridge deck area condition (good or poor) for all bridges carrying NHS in the region