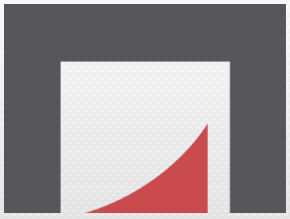


Performance Measures

Memphis MPO

February 16, 2023

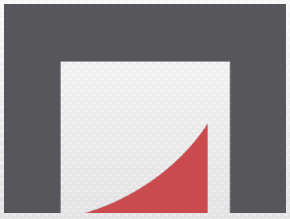




Background

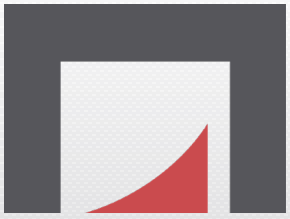
- In compliance with federal regulations, the Memphis MPO must adopt the next round of performance measures set by each respective State
- The following slides provides an overview of performance measures progress and expected changes for the upcoming adoption.
 - For review are PM1, which must be adopted by February 27th, 2023
 - PM2, which must be adopted by June 14th, 2023
 - And PM3 (travel time), which must be adopted by June 14th, 2023

PM1: Safety



PM1: Safety

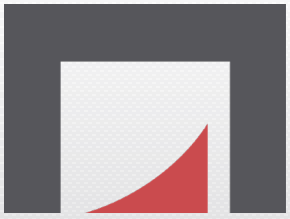
- **Area** – Individual State Targets for all public roads in the state
- **Data** – Highway Performance Monitoring System (HPMS), Fatality Analysis Reporting System (FARS), Tennessee Integrated Traffic Analysis Network (TITAN), MDOT's Safety Analysis Management System (SAMS)
- **Performance Measures** –
 - Number of Serious Injuries
 - Rate of Serious Injuries per 100 Million VMTs
 - Number of Fatalities
 - Rate of Fatalities per 100 Million VMTs
 - Number of Non-motorized Fatalities and Serious Injuries
- **Calculation** – 5-Year rolling avg. of 5 individual, consecutive points of data



PM1 Targets

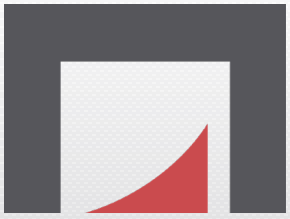
	Baseline (2017-2021)	Target (2019-2023)
Tennessee (TDOT)		
Number of Fatalities	1148.6	1308.2
Number of Serious Injuries	5995.6	6069.4
Fatality Rate	1.417%	1.601%
Serious Injury Rate	7.416%	7.424%
Number of Non-Motorized Fatalities and Serious Injuries	546.4	600.9
Mississippi (MDOT)		
Number of Fatalities	706.6	761
Number of Serious Injuries	2001.6	3098
Fatality Rate	1.74%	1.87%
Serious Injury Rate	4.95%	7.64%
Number of Non-Motorized Fatalities and Serious Injuries	216.8	258

PM2: Infrastructure Condition



PM2: Infrastructure Condition

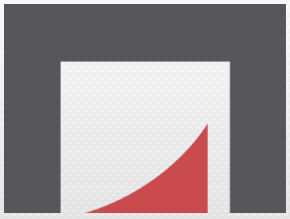
- **Area** – Individual State 2- & 4-Year Targets for the Interstate and Non-Interstate NHS
- **Data** – Highway Performance Monitoring System (HPMS) and National Bridge Inventory (NBI)
- **Performance Measures** –
 - % of Interstate Pavement in Good Condition
 - % of Interstate Pavement in Poor Condition
 - % of non-Interstate NHS Pavement in Good Condition
 - % of non-Interstate NHS Pavement in Poor Condition
 - % of NHS Bridges by deck area in Good Condition
 - % of NHS Bridges by deck area in Poor Condition
- **Calculation** –
 - Good and Poor Condition Rating Areas: International Roughness Index (IRI), Cracking, Rutting (Asphalt pavements), and Faulting (Concrete pavements)
 - Rated by lowest of the following subcomponent ratings: Deck, Superstructure, Substructure, and Culverts.



PM2 Targets

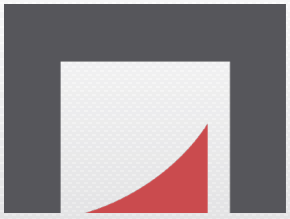
	Tennessee			Mississippi		
	Baseline	2-yr	4-yr	Baseline	2-yr	4-yr
% of Pavement in Good Condition (Interstate)	70.8%	58.0%	58.0%	71.2%	>55%	>55%
% of Pavement in Poor Condition (Interstate)	0.2%	1.0%	1.0%	0.7%	<5%	<5%
% of Pavement in Good Condition (Non-Interstate NHS)	40.3%	36%	36%	37.7%	>25%	>25
% of Pavement in Poor Condition (Non-Interstate NHS)	4.1%	6%	6%	4.2%	<10%	<10%
% of NHS bridges classified as in Good condition (deck area)	32.5%	32%	32%	55.8%	>50%	>50%
% of NHS bridges classified as in Poor condition (deck area)	5%	6%	6%	2.8%	<5%	<5%

PM3: System Performance



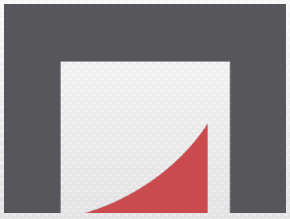
PM3: Travel Time & Truck Travel Time Reliability

- **Area** – Individual State 2 Year & 4 Year Targets for Interstate and 4 Year Target for Non-Interstate
- **Data** – National Performance Management Research Data Set (NPMRDS)
- Performance Measures –
 - % of the Person Miles Traveled on the Interstate System that are reliable
 - % of the Person Miles Traveled on the Non-Interstate NHS that are reliable
 - % of the Interstate System mileage providing for Reliable Truck Travel Times (Truck Travel Time Reliability Index)
- **Calculation** –
 - *Level of Travel Time Reliability* = $\frac{\text{80th Percentile Travel Time}}{\text{50th Percentile Travel Time}}$
 - *Truck Travel Time Reliability* = $\frac{\text{95th Percentile Truck Travel Time}}{\text{50th Percentile Truck Travel Time}}$



PM3 Targets

	Tennessee			Mississippi		
	Baseline	2-yr	4-yr	Baseline	2-yr	4-yr
% of Person-Miles Traveled on the Interstate that are Reliable & of Person Miles Traveled on Non-Interstate NHS that are Reliable	92.1%	88.2%	88.2%	99.6%	>93%	>93%
Truck Travel Time Reliability Index on Interstate System	1.32	1.35	1.35	1.14	<1.4	<1.4



Updated Targets Summary

Safety Performance Measure (PM1)	TDOT 2019-23 Target	MDOT 2019-23 Target
Fatalities	1308.2	761
Fatality Rate	1.601%	1.87%
Serious Injuries	6069.4	3098
Serious Injury Rate	7.424%	7.64%
Non-Motorized Fatalities and Serious Injuries	600.9	258
System Performance Measure (PM3)	TDOT 2022-25 Target	MDOT 2022-25 Target
% of Person-Miles Traveled on the Interstate that are Reliable	88.2%	>93%
& of Person Miles Traveled on Non-Interstate NHS that are Reliable	89.4%	>85%
Truck Travel Time Reliability Index on Interstate System	1.35	<1.4

Infrastructure Condition Performance Measure (PM2)	TDOT 2022-25 Target	MDOT 2022-25 Target
% of Pavement in Good Condition (Interstate)	58%	>55%
% of Pavement in Poor Condition (Interstate)	1%	<5%
% of Pavement in Good Condition (Non-Interstate NHS)	36%	>25%
% of Pavement in Poor Condition (Non-Interstate NHS)	6%	<10%
% of NHS bridges classified as in Good condition (deck area)	32%	>50%
% of NHS bridges classified as in Poor condition (deck area)	6%	<5%