

BOARD OF DIRECTORS AGENDA ITEM 12/16/2020

2021 Performance Targets

Southeast Metropolitan Planning Organization

Description

MAP-21 established and the FAST Act maintained a performance-based approach to transportation investments, creating National Performance Goals. In keeping with these goals, State Departments of Transportation and Metropolitan Planning Organizations are required to establish targets. Each target has its own requirements and timelines. This year, four types of performance targets will be reviewed: safety, system condition, system performance, and transit safety.

MoDOT Performance Targets

Safety

Updated Safety Targets are required to be set by the end of February 2021.

Five individual targets comprise the Safety Targets:

1. Number of fatalities
2. Rate of fatalities per 100 million vehicle miles traveled
3. Number of serious injuries
4. Rate of serious injuries per 100 million vehicle miles traveled
5. Number of non-motorized fatalities and non-motorized serious injuries

SEMPPO may choose to set local targets or can choose to plan and program in support of the MoDOT Targets, which are based on a rolling five-year average:

Performance Measure	5-Year Rolling Average Baseline (2015-2019)	5-year Rolling Average Statewide Target for CY2021
Number of Fatalities*	910.0	871.6
Fatality Rate per 100 Million VMT*	1.213	1.119
Number of Serious Injuries*	4681.2	4463.9
Serious Injury Rate per 100 Million VMT^	6.241	5.829
Number of Non-Motorized Fatalities and Serious Injuries^	462.2	462.2~

*Performance Measures were reported in the 2020 Highway Safety Plan.

^Performance Measures were reported in the 2020 Highway Safety Improvement Program Annual Report.

Methodology: Targets are based on Zero by 2030 fatality reduction, Zero by 2040 serious injury reduction, 1% VMT increase, and non-motorized reduction based on overall fatality and serious injury

reductions. An exception is made for instances where the baseline 5-year rolling average is less than the calculated target using the parameters previously described. When this occurs, the baseline will be used as the target.

~The Number of Non-Motorized Fatalities and Serious Injuries using the methodology above was calculated to be 475.8. This is greater than the 462.2 for the baseline, therefore the baseline was used for the target.

More data below:

Performance Measure	Crash Data				5-Year Rolling Average Baseline (2015-2019)	5-year Rolling Average Statewide Target CY2021
	2018 Final	2019 Preliminary	2020 Interim Target	2021 Target		
Number of Fatalities*	921	880	838	789	910.0	871.6
Fatality Rate per 100 Million VMT*	1.211	1.146	1.031	0.919	1.213	1.119
Number of Serious Injuries*	4717	4486	4272	4059	4681.2	4463.9
Serious Injury Rate per 100 Million VMT^	6.202	5.840	5.507	5.179	6.241	5.829
Number of Non-Motorized Fatalities and Serious Injuries^	440	517	492	467	462.2	462.2~

System Condition

Updated Bridge and Pavement Targets are required to be set by the end of March 2021.

Six individual targets comprise the Bridge and Pavement Targets:

1. Percentage of NHS Bridges Classified as in Good Condition
2. Percentage of NHS Bridges Classified as in Poor Condition
3. Percentage of Pavements of the Interstate System in Good Condition
4. Percentage of Pavements of the non-Interstate NHS in Good Condition
5. Percentage of Pavements of the Interstate System in Poor Condition
6. Percentage of Pavements of the non-Interstate NHS in Poor Condition

Targets will be reviewed and may be updated every two years. SEMPO can choose to set local targets or can choose to plan and program in support of the MODOT targets.

Performance Measure	2017 Baseline	2019 Target	2021 Target
Percentage of NHS Bridges in Good Condition	34.0%	30.9%	26.4%*
Percentage of NHS Bridges in Poor Condition	7.1%	7.1%	8.2%*
Percentage of Interstate Pavements in Good Condition	77.5%		77.5%
Percentage of Interstate Pavements in Poor Condition	0.1%		0.1%
Percentage of non-Interstate NHS Pavements in Good Condition	61.1%	61.1%	61.1%
Percentage of non-Interstate NHS Pavements in Poor Condition	1.0%	1.0%	1.0%

*Target revised from original set in May 2018

System Performance

Updated System Performance Targets are required to be set by the end of March 2021.

There are also six individual targets for System Performance, however only three of them apply to SEMPO:

1. Interstate Travel Time Reliability Measure: Percent of Person-Miles Traveled on the Interstate that are Reliable (NPMRDS)
2. *Non-Interstate Travel Time Reliability Measure: Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable (NPMRDS)
3. ~~*Peak Hour Excessive Delay (PHED) Measure: Annual Hours of PHED Per Capita (single unified target for EWG, IDOT, MoDOT) (NPMRDS)~~
4. ~~Non-Single Occupancy Vehicle Travel (SOV) Measure: Percent of non-SOV Travel (single unified target for EWG, IDOT, MoDOT) (ACS)~~
5. ~~Emissions Measure: Total Emissions Reduction for PM2.5, Ozone and CO individually (only applies to EWG, St. Louis)~~
6. Freight Reliability Measure: Truck Travel Time Reliability (TTTR) Index (NPMRDS)

*4-year target for 2022 initially for phase in and may be adjusted in 2020; in 2022, must establish 2- and 4- year targets

Targets will be reviewed and may be updated every two years. OTO can choose to set local targets or can choose to plan and program in support of the MoDOT targets.

Performance Measure	2017 Baseline	2019 Target	2021 Target
Interstate Travel Time Reliability Measure: Percent of Reliable Person-Miles Traveled on the Interstate	91.6%	88.9%	87.1%
Non-Interstate Travel Time Reliability Measure: Percent of Reliable Person-Miles Traveled on the Non-Interstate NHS	92.3%		87.8%
Freight Reliability Measure: Truck Travel Time Reliability Index	1.25	1.28	1.45*

*Target revised from original set in May 2018

Transit Safety

The Cape Girardeau County Transit Authority (CGCTA) recently adopted a Public Transportation Agency Safety Plan (PTASP); a copy of which was included in the agenda packet.

There are four transit safety performance measures:

1. Fatalities: Total number of reportable fatalities and rate per total revenue miles by mode
2. Injuries: Total number of reportable injuries and rate per total vehicle revenue miles by mode
3. Safety Events: Total number of reportable events and rate per total vehicle revenue miles by mode
4. System reliability: State of Good Repair - Mean distance between major mechanical failures by mode

The CGCTA PTASP adopted the following performance targets. SEMPO may elect to plan and program in support of these targets or set separate targets.

Transit Safety Performance Targets							
<i>The targets below are based on review of the previous five (5) years of CGCTA's safety performance data. All rate targets recorded here are per one hundred thousand vehicle revenue miles (VRM).</i>							
Mode of Transit Service	Fatalities (Total)	Fatalities (per 100,000 miles)	Injuries (Total)	Injuries (per 100,000 miles)	Safety Events (Total)	Safety Events (per 100,000 miles)	System Reliability*
Fixed Routes	0	0	2	2	5	5	100,000
Van Pool	0	0	2	1.22	4	2.45	80,000
Demand Response	0	0	5	0.45	9	0.82	80,000
ADA Complementary Paratransit	0	0	0	0	0	0	0

*This calculation is based on one year of available data

IDOT Performance Targets

Safety

Updated Safety Targets are required to be set by the end of February 2021.

Five individual targets comprise the Safety Targets:

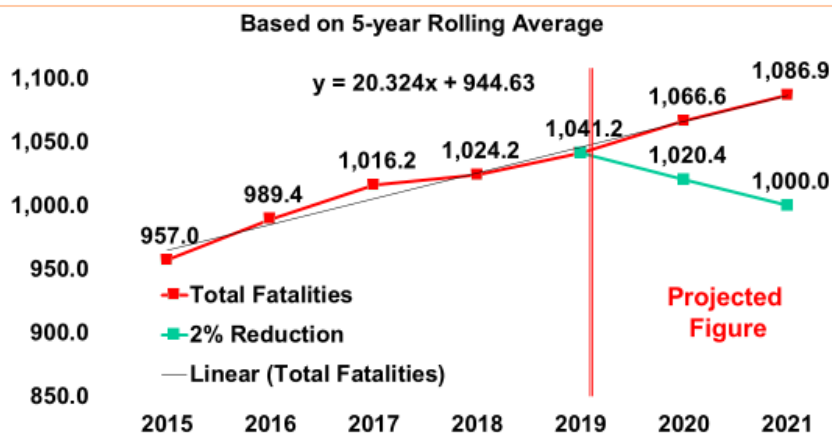
1. Number of fatalities
2. Rate of fatalities per 100 million vehicle miles traveled
3. Number of serious injuries
4. Rate of serious injuries per 100 million vehicle miles traveled
5. Number of non-motorized fatalities and non-motorized serious injuries

SEMPO may choose to set local targets or can choose to plan and program in support of the IDOT Targets, which are based on a rolling five-year average:

Core Highway Safety Performance Measures Based on Rolling Average Using 2015-2019 FARS and Survey Data							
Selected Core Measures					Baseline Rolling Average	Projected Measures for 2020 and 2021	
FHWA Safety Performance Measures	2011-2015	2012-2016	2013-2017	2014-2018	2015-2019	2020	2021
Total Fatalities	957.0	989.4	1,016.2	1,024.2	1041.2	1,020.4	1,000.0
Fatality Rate	0.91	0.94	0.96	0.96	0.97	0.95	0.93
Total Serious Injuries*	12,220.4	12,184.4	12,124.6	11,956.0	12032.9	11792.2	11,556.4
Total Serious Injury Rate*	11.68	11.55	11.43	11.2	11.23	11.01	10.79
Nonmotorized Fatalities and Serious Injuries* (Pedestrian, Bicyclist, and Other Cyclist)	1,515.4	1,498.8	1,528.4	1,561.0	1580.2	1580.2	1,517.6

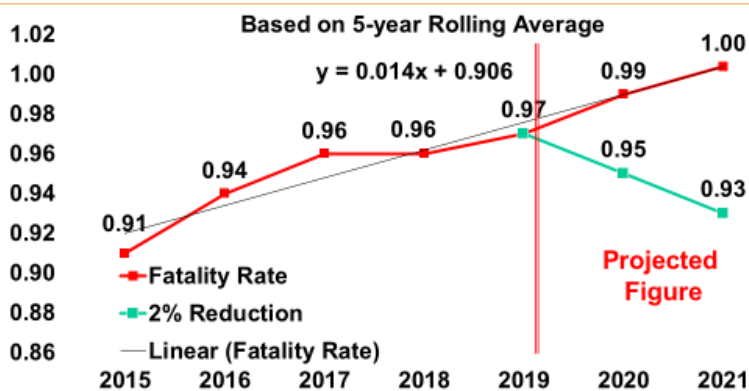
* 2019 data are estimated. Preliminary data as of 7/8/2020.

Total Number of Traffic Fatalities



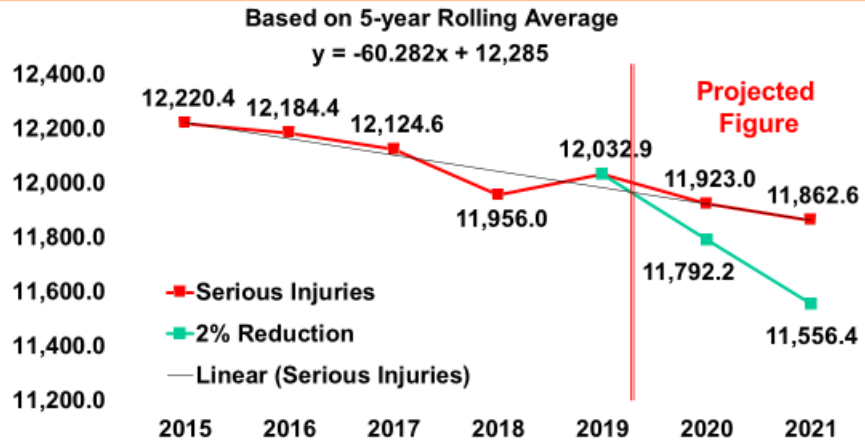
Data as of 7/8/2020

Total Traffic Fatality Rate per 100M VMT



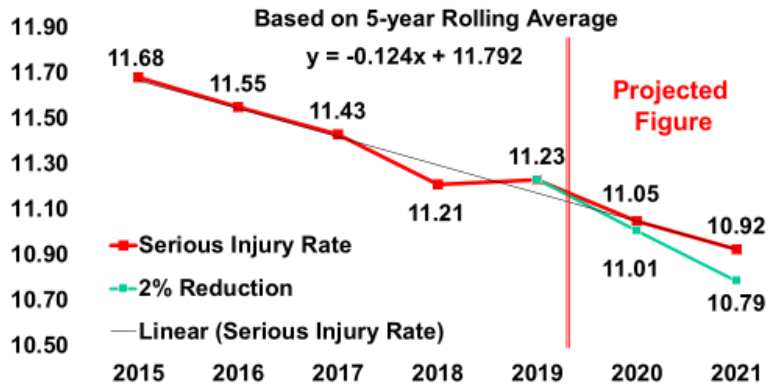
Data as of 7/8/2020

Serious Injuries in Traffic Crashes



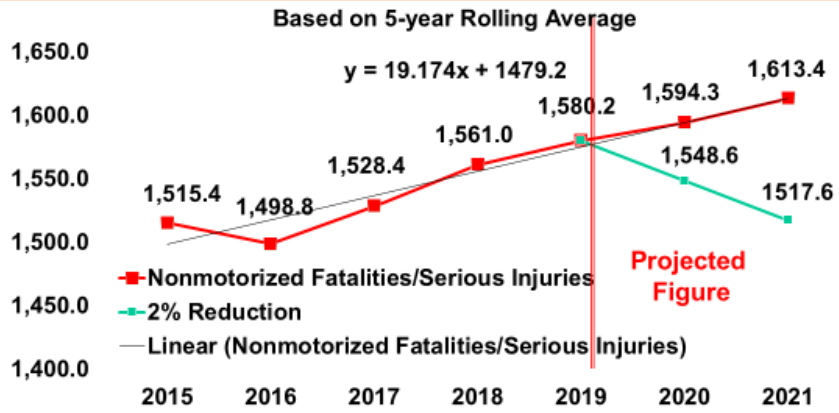
Data as of 5/28/20. Serious Injuries for 2019 were estimated due to the data not being available.

Serious Injury Rate per 100M VMT



Data as of 5/28/20. Serious Injuries for 2019 were estimated due to the data not being available.

Nonmotorized Fatalities and Serious Injuries (Pedestrian, Bicyclist, and Other Cyclist)



Data as of 7/8/2020

System Condition

In 2018, IDOT set targets for the federally required transportation performance management metrics. Each MPO had to accept IDOT targets or set their own. At the two year point, it would be determined if IDOT made significant progress towards achieving that target and be given an opportunity to adjust their four year targets. After review, IDOT decided to adjust six of their four year targets. The adjusted targets are highlighted in the table below. This was completed on 10/1/20 and each MPO has 180 days from that date to either accept or set their own targets. Per the performance measures agreement the Department entered in with each MPO and the transit agencies, action should be taken by the SEMPO Board for accepting or setting your own targets.

Pavement and Bridge condition information is available on our website here under the performance tab: <http://www.idot.illinois.gov/transportation-system/transportation-management/planning/tamp>

Illinois Summary of Performance Measures and Targets					
Performance Measure	Baseline	2-Year Condition/ Performance	2-Year Targets	4-Year Target	4-Year Target Adjustment
Percentage of Pavements of the Interstate System in Good Condition		61.1%		65.0%	61.0%
Percentage of Pavements of the Interstate System in Poor Condition		0.7%		4.9%	2.0%
Percentage of Pavements of the Non-Interstate NHS in Good Condition	37.6%	39.1%			
Percentage of Pavements of the Non-Interstate NHS in Good Condition (Full Distress + IRI)		24.3%	27.0%	27.0%	21.0%
Percentage of Pavements of the Non-Interstate NHS in Poor Condition	19.4%	19.4%			
Percentage of Pavements of the Non-Interstate NHS in Poor Condition (Full Distress + IRI)		8.6%	6.0%	6.0%	9.0%
Percentage of NHS Bridges Classified as in Good Condition	29.1%	26.2%	28.0%	27.0%	23.5%
Percentage of NHS Bridges Classified as in Poor Condition	11.6%	13.3%	13.0%	14.0%	15.5%
Percent of the Person-Miles Traveled on the Interstate That Are Reliable	80.8%	79.3%	79.0%	77.0%	
Percent of the Person-Miles Traveled on the Non-Interstate NHS That Are Reliable		89.6%		83.3%	
Truck Travel Time Reliability (TTTR) Index	1.30	1.33	1.34	1.37	

Board of Directors Action Required

That a member of the Board of Directors makes one of the following motions:

“Move to approve a resolution supporting the statewide targets established by MoDOT, IDOT, and the CGCTA.”

OR

“Move to recommend that the Board of Directors approve the targets with the following considerations...”