



MEMORANDUM

To: Transportation Committee

From: CMAP Staff

Date: December 4, 2020

Re: 2021 Regional Highway Safety Performance Targets

Metropolitan planning organizations (MPOs) contribute to the federal Transportation Performance Management (TPM) process to track national goals at the state and regional level for safety, asset condition, system performance, and congestion mitigation and air quality (CMAQ). Under the federal Safety Performance Management (Safety PM) Rule, State departments of transportation (DOTs) and MPOs are required to establish quantitative highway safety performance targets on an annual basis and use a set of performance measures to track progress toward the long-term goal of eliminating traffic related fatalities and serious injuries.¹ MPOs have the choice to support any or all the state's highway safety targets, develop its own highway safety targets for any or all individual measures. For the past 3 years, CMAP has supported the IDOT's statewide highway safety targets.

Each year, the process begins with State DOTs establishing their highway safety targets as part of their Highway Safety Improvement Program (HSIP) report to Federal Highway Administration (FHWA). MPOs have 180 days, from the date the State DOT submits its targets to FHWA, to set their own regional targets or agree to support the State DOT targets. IDOT set its annual highway safety targets in September 2020 and the MPO Policy Committee and CMAP Board must act by January 2021 to set the region's targets. To meet this requirement, the CMAP Board and the MPO Policy Committee will need to affirm the highway safety targets at their January 2021 meetings.

CMAP staff plan to recommend that the Board and MPO support IDOT's 2021 highway safety targets. By agreeing to support IDOT's highway safety targets, the MPO is not agreeing to any specific share of the decrease in fatalities and serious injuries. Instead it is agreeing to integrate

¹ The safety performance measure (Safety PM) requirements are set out in the Federal Highway Administration's [National Performance Management Measures: Highway Safety Improvement Program](#) final rule.

the targets as goals in the metropolitan planning process and to plan and program projects that help meet the State's targets. The selection of the target does not directly affect the allocation of funding at the MPO level. However, the targets selected for different measures should ultimately reflect funding allocation priorities among other factors.

The remainder of this memo provides background on the safety PM rule, reviews IDOT's 2021 statewide highway safety targets, the staff recommendation to support the state's 2021 highway safety targets, and next steps.

Background on Safety Performance Management Rule

The Safety PM requires state DOTs and MPOs to establish highway safety targets as five-year rolling averages on all public roads for: (1) the number of fatalities, (2) the rate of fatalities per 100 million vehicle miles traveled (VMT), (3) the number of serious injuries, (4) the rate of serious injuries per 100 million VMT, and (5) the number of non-motorized fatalities and non-motorized serious injuries. Thus, the form of the 2021 target is the desired value of the 2017-2021 average for each of the measures. Fatalities and serious injuries from traffic crashes vary considerably from year to year due to numerous factors, and the five-year average is meant to smooth large changes.

The actual target should be set to what the state believes it can achieve;² the rule does not specify or provide guidance for how ambitious the targets are to be. Each year the FHWA evaluates whether states have met, or made significant progress toward meeting, their targets. FHWA will consider states to comply if they have met their targets or improved from the baseline at least four of the five required performance targets. The baseline is defined as the 5-year average ending with the year prior to the establishment of the safety targets. For example, the baseline for the 2021 targets is the 2015-2019 5-year average.

As stated above, MPOs have the option to support any or all the state's highway safety targets, develop its own highway safety targets for any or all individual measures. If the MPO sets its own highway safety target, it is required to document how the MPO is to achieve the target. The MPO is also required to integrate the Safety PM into its planning process by including it in the metropolitan transportation plan (MTP), in CMAP's case, ON TO 2050. In addition, the MPO must show how investments in the transportation improvement program (TIP) help achieve the Safety PM targets.

This is the fourth year of the Safety PM Rule and is the first year that FHWA assessed if State DOT's met or made significant progress toward meeting their 2014-2018 highway safety targets. Unfortunately, IDOT did not meet or make significant progress toward meeting their 2014-2018

² The annual highway safety targets are designed to be interim targets that agencies should use to track their performance toward meeting long-term goals of eliminating traffic related serious injuries and fatalities. According to [FHWA guidance](#), state DOTs and MPOs are strongly discouraged from using aspirational goals, such as Towards Zero Deaths (TZD), when setting highway safety targets. While the FHWA agrees with a zero-fatality goal, and even supports the TZD initiative, the annual safety targets should enable agencies to track progress towards their long-term goals. Setting reasonable targets allows agencies to see how changes in policy or funding influence traffic safety, and if agencies are not meeting goals, allow them to alter how they approach safety.

highway safety targets. The results of FHWA’s assessment of IDOT’s 2014-2018 highway safety targets are in Table 1.

Table 1. Illinois Safety Performance Target Assessment Summary 2014-2018

Performance Measure	2014-2018 Target	2014-2018 Outcome	2012-2016 Baseline	Met Target?	Better Than Baseline?	Met or Made Significant Progress?
Number of Fatalities	951	1,024.2	989.4	No	No	NO
Rate of Fatalities	0.900	0.960	0.940	No	No	
Number of Serious Injuries	11,231.1	11,973.6	12,245.8	No	Yes	
Rate of Serious Injuries	10.830	11.220	11.600	No	Yes	
Number of Non-Motorized Fatalities and Serious Injuries	1,508.6	1,526.4	1,524.4	No	No	

Because IDOT did not meet or make significant progress towards achieving its 2014-2018 highway safety targets, IDOT will have to develop a HSIP Implementation plan and is required to use obligation authority equal to the baseline year HSIP apportionment only for safety projects. IDOT already obligates all its HSIP apportionment only for safety projects.

IDOT 2021 safety performance targets

IDOT evaluated two methods to set the state’s targets, a least-squares trend line which approximates the actual trends, and a policy-based 2 percent annual reduction in the 5-year average. IDOT selected the method that returns the greatest decrease in the rolling 5-year average for each measure. Because of a back log for processing crash data, IDOT had to estimate the 2015-2019 five-year rolling average for serious injuries and non-motorized serious injuries. For 2021, all targets use the policy-based 2 percent annual reduction in the 5-year rolling average.

Table 2. IDOT Statewide Safety Performance Measures and 2021 Safety Targets

Performance Measure	5-year average					2021 target
	2011-2015	2012-2016	2013-2017	2014-2018	2015-2019 ¹	2017-2021 ²
Number of Fatalities	957.4	989.4	1,016.2	1,024.2	1,041.2	1,000.0
Rate of Fatalities	0.910	0.938	0.957	0.960	0.971	0.930
Number of Serious Injuries ¹	12,220.4	12,184.4	12,124.6	11,956.0	12,032.9	11,556.4
Rate of Serious Injuries ¹	11.678	11.553	11.425	11.212	11.227	10.790
Number of Non-Motorized Fatalities and Serious Injuries ¹	1,515.4	1,498.8	1,528.4	1,561.0	1,580.2	1,517.6

¹ - 2015-2019 average estimated for serious injuries and non-motorized serious injuries.

² - 2% annual reduction in 5-year average.

Because of its outsized share of the state’s population and multimodal transportation system, the CMAP region greatly influences the safety performance trends at the statewide level. The region accounts for 45 percent and 53 percent of the state’s 5-year average for fatalities and serious injuries, respectively. When it comes to non-motorized fatalities and serious injuries, the CMAP region accounts for roughly 78 percent of the state’s total. This is due to the high number of pedestrians and pedal-cyclists compared to the rest of the state.

Table 3. CMAP Region’s Safety Performance Measures and 2021 Safety Targets

Performance Measure	5-year average					CMAP Region 2021 Target
	2011-2015	2012-2016	2013-2017	2014-2018	2015-2019 ¹	2017-2021 ²
Number of Fatalities	405.8	426.2	443.8	453.2	471.6	452.9
Rate of Fatalities	0.694	0.722	0.746	0.759	0.784	0.753
Number of Serious Injuries¹	6,642.8	6,662.8	6,720.8	6,613.2	6,431.6	6,176.9
Rate of Serious Injuries¹	11.362	11.306	11.325	11.104	10.718	10.293
Number of Non-Motorized Fatalities and Serious Injuries¹	1,158.8	1,149.0	1,182.0	1,215.0	1,231.8	1,183.0

¹ - 2015-2019 average estimated for serious injuries and non-motorized serious injuries.

² - 2% annual reduction in 5-year average.

Recommendation for 2021 safety performance targets

Staff recommends that the MPO support IDOT’s policy-driven 2021 highway safety targets. IDOT’s aggressive highway safety targets reflect the need for, and a commitment to, reducing fatal and serious injury crashes. The region has made progress in reducing fatalities and serious injuries through engineering, education, and technology, but the region still faces significant challenges to reduce the number of traffic related serious injuries and fatalities. By supporting IDOT’s targets, the region will have a unified goal that supports making all roads in the region safer for all users. Given that the targets are set annually, CMAP can readily revisit target selection methodology each year.

In the coming years, CMAP would like to work with IDOT and the region to take a more analytical approach to setting highway safety targets. IDOT’s policy-based 2% reduction target does not directly correspond with its policies and programs. Other state DOT’s have taken a more analytical approach to setting safety targets. For example, the Virginia DOT uses crash trends and the expected impact of programmed projects when setting safety targets. This type of analysis can enable the DOT to draw empirically based connections to its safety impacts of the program and accordingly calibrate targets the DOT can achieve.

CMAP is initiating several traffic safety efforts to support IDOT’s annual safety targets. These are described in the attachment below.

Next steps

Following discussion and approval by the Transportation Committee, the recommended 2021 highway safety targets will be brought to the CMAP Board and MPO Policy Committee in January for approval. If the safety targets are approved, staff will prepare a memo informing IDOT that the CMAP MPO agrees to support the 2021 statewide highway safety targets.

ACTION REQUESTED: Approval

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ATTACHMENT: CMAP Safety Efforts

To facilitate progress on state highway safety targets, CMAP has incorporated highway safety into its programming decisions and work plan. The CMAQ and STP-L Shared Fund programs now incorporate safety into project evaluations and many of the eleven Council of Mayors STP project evaluation to included safety as a measure.

In addition to programming activities, CMAP staff are engaged in many safety initiatives with partner agencies and are committed to advancing transportation safety in the region through the Traffic Safety Action Agenda, which is one item in CMAP's work plan for FY21. The safety action agenda will help guide CMAP's safety work in the coming years. This project is expected to produce implementation-oriented products that will help advance traffic safety in the region. CMAP plans to convene a resource group of transportation safety experts from around the region to provide input on the direction of CMAP's safety action agenda. Initial topics may include speed management and bicycle and pedestrian safety. The project will build off prior analysis, including CMAP's 2017 Traffic Safety White paper. The project will also explore opportunities to establish regional traffic safety targets linked to policies and infrastructure improvement programs.

Other ongoing transportation safety initiatives at CMAP include incorporating traffic safety in more of CMAP's local technical assistance work. CMAP has initiated a project with the Village of Flossmoor to complete a local road safety plan. One goal of this project is to better understand how CMAP can support local governments in achieving safety improvements.