



MEMORANDUM

TO: TPB Technical Committee
FROM: Jon Schermann, TPB Transportation Planner
SUBJECT: Safety Target Setting Methodology and Update on the Regional Safety Study
DATE: September 27, 2019

This memo provides a review of recent safety trends, an initial assessment of the region’s performance relative to the regional safety targets set in January 2018, an overview of staff’s proposed regional safety target setting methodology for the upcoming round of regional safety targets, and an update on the Regional Safety Study.

REVIEW OF RECENT SAFETY TRENDS

Analysis of preliminary data reveal a modest improvement in the regional safety picture between 2017 and 2018. Table 1 displays annual data for the years 2014 through 2018. Note that 2018 data is preliminary.

Table 1: NCR Safety Trends – with Preliminary 2018 Annual Data

Performance Measure	2014	2015	2016	2017	2018 (prelim)	Change from 2017 to 2018
# of Fatalities	263	263	275	313	305	↓ 2.6 %
Fatality Rate (per 100 MVMT)	0.619	0.610	0.624	0.695	0.677	↓ 2.6 %
# of Serious Injuries	2,856	2,642	2,946	2,596	2,461	↓ 5.2 %
Serious Injury Rate (per 100 MVMT)	6.718	6.132	6.680	5.764	5.465	↓ 5.2 %
# Nonmotorist Fatalities & Serious Injuries	548	526	555	595	558	↓ 6.2 %

Fatalities decreased about 2 ½ percent between 2017 and 2018 which drove the fatality rate (per VMT) lower by a similar proportion over the same period. Both the number and rate of serious injuries fell and the number of nonmotorist fatalities plus serious injuries also dropped between 2017 and 2018.

REGIONAL PERFORMANCE RELATIVE TO THE 2014-2018 TARGETS SET IN JANUARY 2018

The first set of regional safety targets was adopted by the TPB in January 2018. Table 2 below illustrates the status of each of the five targets.

Table 2: 2014-2018 Actual vs. Targets

Performance Measure (5-year rolling average)	2014-2018 Actual*	2014-2018 Target	Status
# of Fatalities	283.8	253.0	Not met
Fatality Rate (per 100 MVMT)	0.677	0.588	Not met
# of Serious Injuries	2,700.2	3,007.3	Met
Serious Injury Rate (per 100 MVMT)	6.519	6.791	Met
# Nonmotorist Fatalities & Serious Injuries	556.4	528.8	Not met

Note: * the 2014-2018 Actual column reflects preliminary data

As shown above, three of the five targets were not met. The modest improvements in the fatality, fatality rate, and nonmotorist fatalities and serious injuries performance measures between 2017 and 2018, were not enough to offset increases in prior years. However, the number of serious injuries and the serious injury rate were well below the adopted targets.

PROPOSED REGIONAL TARGET SETTING METHODOLOGY

This year, a new set of targets for the five safety performance measures will be adopted as per federal Performance Based Planning and Programming (PBPP) requirements. These targets will be for the 2016-2020 period. The methodology staff proposes to develop these targets is the same as the process used last year and leverages the approaches used by our state DOT partners. To account for and incorporate the different target setting approaches used by Maryland, Virginia, and the District of Columbia to develop targets for the entire National Capital Region (NCR), staff will apply the following methodology to develop the proposed draft targets:

- identify a “sub-target” for the Maryland portion of the NCR by applying MDOT’s target setting approach to the NCR safety data;
- identify a “sub-target” for the Virginia portion of the NCR by applying VDOT’s target setting approach to the NCR safety data;
- identify a “sub-target” for the District of Columbia portion of the NCR by directly incorporating DDOT’s targets;
- combine the three sub-targets mathematically into a set of initial regional targets;

- compare each performance measure's sub target with the corresponding target set last year; and select the lower (more aggressive) of the two targets as this year's target.¹

REGIONAL SAFETY TARGET SETTING SCHEDULE

In late May COG signed a contract with Cambridge Systematics, Inc. to conduct the Regional Safety Study. This study will identify the factors driving our observed safety outcomes and recommend projects, policies, strategies, and programs to address those factors.

To date the consultant team has completed the project kickoff meeting, developed a work plan and schedule in coordination with the Technical Advisory Panel, acquired crash data and other relevant data including volume, roadway characteristics, and existing safety analyses. In consultation with the TAP, the consultant team identified and interviewed three peer MPOs:

1. East-West Gateway Council of Governments – St. Louis, MO, IL;
2. Metropolitan Transportation Commission – San Francisco, CA; and
3. Delaware Valley Regional Planning Commission – Philadelphia, PA, NJ.

A draft memo highlighting the types of activities, programs, policies these MPOs are implementing to improve safety and summarizing the resulting recommendations has been completed and is currently under review.

The consultant team is currently conducting an analysis of the regional crash data which includes identifying regional and jurisdictional crash trends, quantifying contributing factors for the region and by jurisdiction, determining the crash types that are over-represented in the region and by jurisdiction, and developing maps to illustrate the results. They have also proposed a network screening methodology that is under review by the Technical Advisory Panel.

By mid-October the consultant team plans to finalize recommendations based on the peer MPO interviews and complete the initial crash analysis. They will be providing an update to the Transportation Safety Subcommittee on October 8. Presentations to the Technical Committee and the Transportation Planning Board will be scheduled over the coming months.

Later this year the consultant team will complete a more detailed crash data analysis, including network screening, and develop recommendations based on the analysis and research findings for the TPB and/or member jurisdictions to address the region's safety challenges.

¹ This ensures that none of this year's safety targets will be higher than the targets that were adopted by the TPB last year.