

Metropolitan Transportation Commission Planning Committee

January 10, 2020

Agenda Item 3b

Federal Road Safety Performance Target-Setting Update – January 2020

Subject: Update on federally-required Road Safety performance targets for the year 2020.

Background: The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) established a Transportation Performance Management program to orient transportation investment decision-making around national transportation goals, thus increasing accountability and transparency of Federal programs while also moving toward a performance-based planning and programming paradigm. This memorandum summarizes MTC target-setting actions for Road Safety and presents the methodology and rationale used to arrive at the targets.

Under MTC Resolution No. 4295, adopted in June 2017, the MTC Planning Committee delegated authority for target-setting to staff, requiring regular consultation with stakeholders through MTC's working groups and semiannual updates to the committee going forward.

Target Setting Methodology

Through the Transportation Performance Management program, State Departments of Transportation (DOTs), Metropolitan Planning Organizations (MPOs), and transit agencies are responsible for setting targets for 28 performance measures covering the following federal goal areas: Safety; Infrastructure Condition; System Reliability; Freight Movement and Economic Vitality; Congestion Reduction; and Environmental Sustainability (**Attachment A**). Federal regulation requires targets to be set on varying performance cycles ranging from once every year to once every four years.

This will be the third round of Road Safety target-setting for Caltrans and MTC. MPOs are required to either support State targets or set regional targets for federally-mandated performance measures for Road Safety by February 2020. As detailed in **Attachment B** and **Attachment C**, staff propose setting targets using a Vision Zero framework, where targets are set based on a linear decline to zero fatalities and zero serious injuries in the year 2030.

Issues: While the region has seen increased numbers of fatalities, serious injuries, and non-motorized fatalities and serious injuries in recent years, current and near-term projects and policies at the local and regional level underscore a commitment to swiftly reversing this trend. On a local level, several jurisdictions, including the region's three largest cities, have adopted Vision Zero policies, affirming their commitment to ending road fatalities and serious injuries. At the regional level, MTC is currently working towards establishing a Regional Safety Program and adopting a Regional Vision Zero policy. As part of this process, MTC has received funding from the Systematic Safety Analysis Report Program (SSARP) to create an integrated Regional Safety Data System and draft a State of Safety in the Region report, a key first step in

targeting future investments to maximize the impacts of safety improvements. Future efforts could also leverage MTC resources to coordinate safety project implementation at the local level, apply for funding from State and Federal sources, and assess regional safety needs for local streets and roads. MTC staff will soon follow up with a presentation to the Commission to provide more detail on staff's efforts to enhance safety in the region.

While more ambitious than the 2019 targets, the 2020 targets reflect MTC's continued commitment to advancing road safety. Progress toward targets will be reviewed during MTC's biannual certification review with the Federal Highway Administration, though there are no ramifications for not meeting regional targets at this time.

Next Steps: Updated Road Safety targets will be posted on Vital Signs, where progress toward achieving targets is updated on an annual basis. The next round of target-setting for federal performance measures will occur in April 2020, where MTC will set its fourth round of targets for State of Good Repair of Transit Assets.

Recommendation: Information

Attachments: Attachment A: List of Federally-Required Performance Measures
Attachment B: February 2020 Target-Setting Summary: Road Safety
Attachment C: 2020 Targets for Road Safety


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List of Federally-Required Performance Measures

FEDERAL GOALS & PROGRAMS	GENERAL MEASURES IN LAW	FINAL PERFORMANCE MEASURES	TARGET-SETTING FREQUENCY	TARGET-SETTING DUE DATES	CURRENT STATUS
Safety HSIP TSOP	Number of Fatalities on Roads	1. Total number of road fatalities	Annual	State: annually in August MPO: annually in February	Caltrans set its 2020 targets in August 2019. MTC must set regional targets by February 2020. Two rounds of target-setting complete.
	Rate of Fatalities on Roads	2. Road fatalities per 100M VMT	Annual	State: annually in August MPO: annually in February	
	Number of Serious Injuries on Roads	3. Total number of serious injuries on roads	Annual	State: annually in August MPO: annually in February	
	Rate of Serious Injuries on Roads	4. Serious injuries on roads per 100M VMT	Annual	State: annually in August MPO: annually in February	
	Non-Motorized Safety on Roads	5. Combined total number of non-motorized fatalities and serious injuries	Annual	State: annually in August MPO: annually in February	
	Safety of Public Transit Systems	6. Total number of reportable transit fatalities	Annual	Operators: annually in July (starting 2020) MPO: annually in January (starting 2021)	The final rule for these performance measures was issued in July 2018 and goes into effect in July 2019. Transit operators must establish a Public Transportation Agency Plan, including safety performance targets, by July 20, 2020. MPOs will have 180 days after the establishment of the Safety Plan to establish regional targets for Safety of Public Transit Systems.
		7. Reportable transit fatalities per RVM by mode (example below) a. Motor bus b. Light rail c. etc.			
		8. Total number of reportable transit injuries			
		9. Reportable transit injuries per RVM by mode (example below) a. Motor bus b. Light rail c. etc.			
		10. Total number of reportable transit safety events			
		11. Reportable transit safety events per RVM by mode (example below) a. Motor bus b. Light rail c. etc.			
		12. Mean distance between major mechanical failures by mode (example below) a. Motor bus b. Light rail c. etc.			

FEDERAL GOALS & PROGRAMS	GENERAL MEASURES IN LAW	FINAL PERFORMANCE MEASURES	TARGET-SETTING FREQUENCY	TARGET-SETTING DUE DATES	CURRENT STATUS
Infrastructure Condition NHPP NTAMS	Pavement Condition on the IHS	13. Percentage of pavements on the IHS in good condition 14. Percentage of pavements on the IHS in poor condition	Every 4 years	State: May 2022 MPO: November 2022	MTC supported State targets in 2018. One round of target-setting complete.
	Pavement Condition on the NHS	15. Percentage of pavements on the non-IHS NHS in good condition 16. Percentage of pavements on the non-IHS NHS in poor condition	Every 4 years	State: May 2022 MPO: November 2022	
	Bridge Condition on the NHS	17. Percentage of NHS bridges by deck area classified in good condition 18. Percentage of NHS bridges by deck area classified in poor condition	Every 4 years	State: May 2022 MPO: November 2022	
	State of Good Repair for Public Transit Assets	19. Percentage of revenue vehicles that have met or exceeded their ULB by asset class (example below) <i>a. Motor bus</i> <i>b. Light rail vehicle</i> <i>c. etc.</i> 20. Percentage of facilities within a condition rating below fair by asset class (example below) <i>a. Administrative and maintenance facilities</i> <i>b. Passenger facilities</i> 21. Percentage of guideway directional route-miles with performance restrictions 22. Percentage of non-revenue vehicles that have met or exceeded their ULB	Annual	Operators: annually in October MPO: annually in April	Operators set their 2020 targets in October 2019. MTC must set regional targets by April 2020. Three rounds of target-setting complete.
System Performance NHPP	Performance of the Interstate System	23. Percentage of person-miles traveled on the IHS that are reliable	Every 4 years	State: May 2022 MPO: November 2022	MTC supported State targets in 2018. One round of target-setting complete.
	Performance of the NHS	24. Percentage of person-miles traveled on the non-IHS NHS that are reliable 25. Percent change in NHS tailpipe CO₂ emissions compared to 2017 baseline (eliminated by FHWA in spring 2018)	Every 4 years	State: May 2022 MPO: November 2022	

FEDERAL GOALS & PROGRAMS	GENERAL MEASURES IN LAW	FINAL PERFORMANCE MEASURES	TARGET-SETTING FREQUENCY	TARGET-SETTING DUE DATES	CURRENT STATUS
Freight Movement and Economic Vitality NHFP	Freight Movement on the Interstate System	26. IHS truck travel reliability index	Every 4 years	State: May 2022 MPO: November 2022	MTC supported State targets in 2018. One round of target-setting complete.
Congestion Reduction CMAQ	Traffic Congestion	27. Annual hours of peak-hour excessive delay per capita by urbanized area <ul style="list-style-type: none"> a. San Francisco-Oakland UA b. San Jose UA c. Concord UA** d. Santa Rosa UA** e. Antioch UA** 28. Percent of non-SOV travel by urbanized area <ul style="list-style-type: none"> a. San Francisco-Oakland UA b. San Jose UA c. Concord UA** d. Santa Rosa UA** e. Antioch UA** ** = not required during 1 st target-setting cycle	Every 4 years	State: May 2021 MPO: November 2021 <i>Note that targets must be fully consistent with state targets; therefore the de facto target-setting deadline for both State and MPO is May 2021.</i>	State & MTC agreed upon targets in May 2018 for PHED and non-SOV travel. One round of target-setting complete.
Environmental Sustainability CMAQ	On-Road Mobile Source Emissions	29. Total emissions reductions from CMAQ-funded projects by pollutant <ul style="list-style-type: none"> a. PM_{2.5} b. PM₁₀ c. CO d. VOC e. NO_x 	Every 4 years	State: May 2022 MPO: November 2022	MTC set regional targets for on-road mobile emissions based on EMFAC regional emissions forecasts in 2018. One round of target-setting complete.
Reduced Project Delivery Delays	<i>none</i>	<i>none</i> (neither MAP-21 nor FAST included performance measures for this goal)	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>

February 2020 Target-Setting Summary: Roadway Safety

Overview

The final rule from FHWA established five performance measures to assess performance for Road Safety. The rule contained new requirements for State DOTs and MPOs. The major requirements of the rule related to safety are:

- 1) **Safety Targets** – The final rule established five performance measures to assess progress towards the safety goal, defined as such:

Measure	Definition
Number of fatalities	The number of people involved in a crash with the outcome fatal injury.
Rate of fatalities per 100 million vehicle miles traveled	The number of people involved in a crash with the outcome fatal injury, divided by the number of vehicle miles traveled on roads within the jurisdiction in hundreds of millions of miles.
Number of serious injuries	The number of people involved in a crash with the outcome suspected serious injury.
Rate of serious injuries per 100 million vehicle miles traveled	The number of people involved in a crash with the outcome suspected serious injury, divided by the number of vehicle miles traveled on roads within the jurisdiction in hundreds of millions of miles.
Number of non-motorized fatalities and non-motorized serious injuries	The number of pedestrians or cyclists involved in a crash with the outcome fatal injury or suspected serious injury.

State DOTs must set numerical targets and MPOs must support State targets or set numerical regional targets annually for each of the five safety targets to comply with the regulation.

- 2) **Reporting** – State DOTs must submit a report at the start of each performance period summarizing baseline conditions and targets. Additionally, State DOTs must submit progress reports at the midpoint and end of the performance period. MPOs and State DOTs must agree on reporting process as part of their Metropolitan Planning Agreements, though federal regulation does not require separate reports to be submitted to FHWA.
- 3) **Evaluation** – A State DOTs is said to have made “significant progress” if it meets four out of five safety performance targets or if performance is better than baseline data for four out of five safety performance targets. FHWA will assess an MPO’s progress as part of ongoing transportation planning process reviews. If an MPO does not meet or achieved its targets, the MPO is encouraged to develop a statement that describes how the MPO will work with the State and other partners to meet targets during the next performance period.

MPOs are required to establish their 2020 targets for safety by February 27, 2020, 180 days after the state DOT requirement.

Target-Setting Approach and Rationale

The Healthy and Safe Communities goal of Plan Bay Area 2040 established road safety as one of MTC's primary emphasis areas. At present, the agency is currently working toward establishing a Regional Safety Program and adopting a regional Vision Zero policy. Given these efforts and direction from the Commission to actively pursue reductions in road fatalities and injuries, MTC set regional targets for Road Safety based on a Vision Zero framework, aiming to eliminate fatalities and serious injuries on the region's roads by the year 2030 (Figures 1, 2, and 3). Regional targets were set using 2016 as a baseline, in line with the methodology used by Caltrans.

Figure 1: MTC Target-Setting Methodology for Number of Fatalities

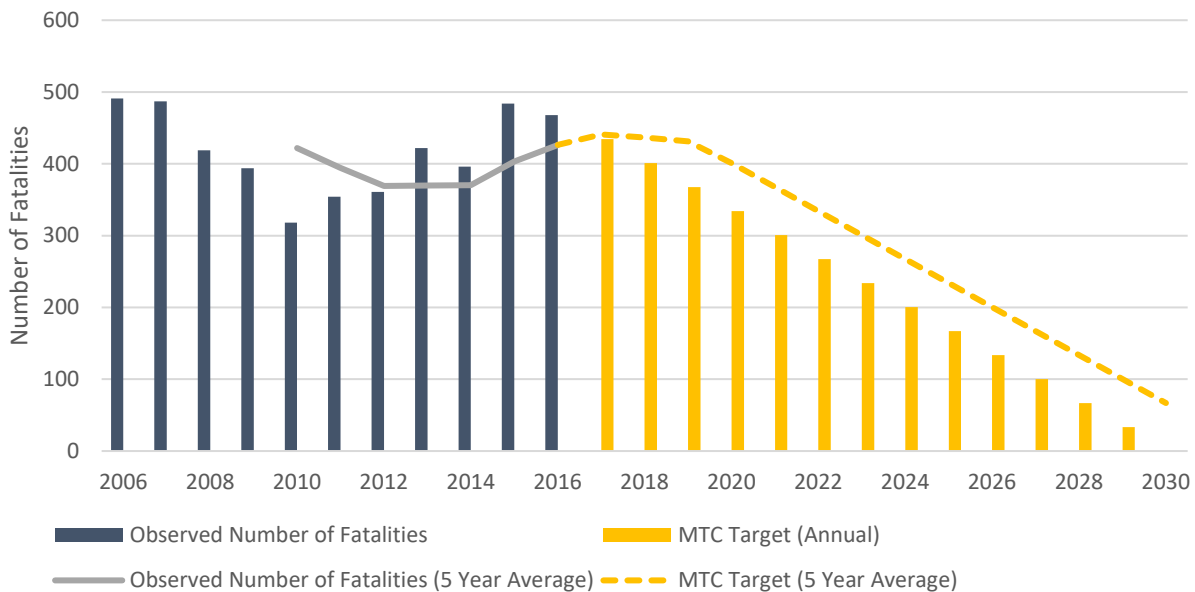


Figure 2: MTC Target-Setting Methodology for Number of Serious Injuries

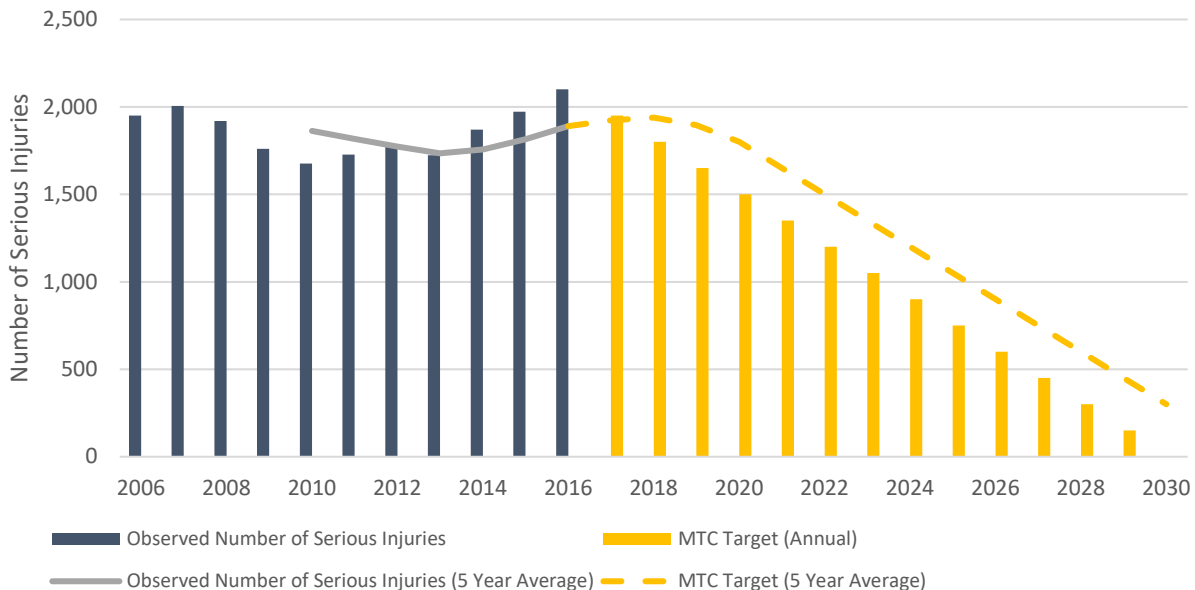
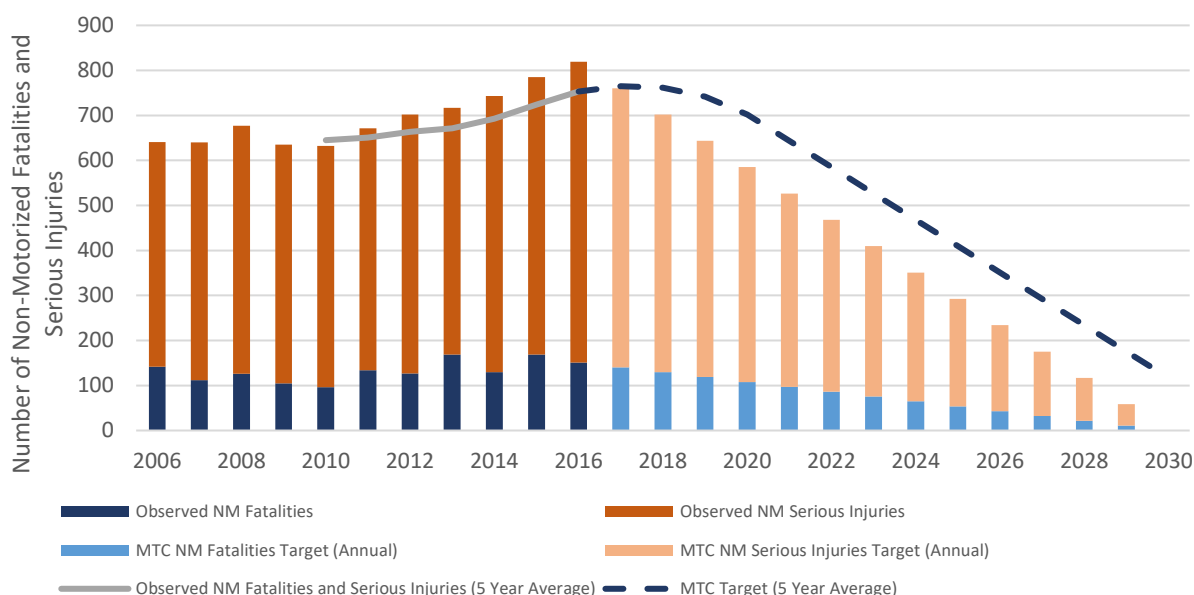


Figure 3: MTC Target-Setting Methodology for Number of Non-Motorized Fatalities and Serious Injuries



Annual vehicle miles traveled, used to set targets for the rate of fatalities and serious injuries per 100 million VMT, were calculated by averaging the year over year increase in VMT in the nine-county Bay Area. Targets were set based on the assumption of a 1.2% annual increase in regional VMT, a rate slightly above the state assumption of 1%.

Review of Past Performance

Leading up to the baseline performance period (2012-2016), the total number of fatalities, serious injuries, and non-motorized fatalities and serious injuries has increased over time. This can be attributed in large part to an increase in vehicle miles traveled occurring alongside a period of economic growth. Meanwhile, the rate of both fatalities and serious injuries per 100 million vehicle miles traveled has fallen since the early 2000s, though both remain higher than the lows registered during the late 2000s. Performance has been particularly poor for non-motorized fatalities and serious injuries in recent years. In the period between 2012 and 2016, an average of 750 cyclists and pedestrians were seriously injured or killed each year, with a record high of over 800 non-motorized fatalities or serious injuries occurring in 2016 alone.

Summary of Proposed Targets

As presented in detail in **Attachment C**, staff propose the following targets for Road Safety for the 5-year performance period ending in 2020.

Summary of Proposed Regional Targets

Measure	Baseline*	2020 Target
Number of fatalities	426.2	401.1
Rate of fatalities per 100 million vehicle miles traveled	0.688	0.622
Number of serious injuries	1,890.2	1,800.9
Rate of serious injuries per 100 million vehicle miles traveled	3.050	2.793
Number of non-motorized fatalities and non-motorized serious injuries	753.2	702.0

* = based upon most recently available data (2016); uses five-year rolling average (2012-2016).

Proposed 2020 Targets for Roadway Safety

General Information

Goal	Road Safety
Performance Measure(s)	<ul style="list-style-type: none"> Number of fatalities Rate of fatalities per 100 million vehicle miles traveled Number of serious injuries Rate of serious injuries per 100 million vehicle miles traveled Number of non-motorized fatalities and non-motorized serious injuries
Target(s) for Year	2020
Target(s) Deadline for MTC Approval	February 27, 2020

Past Targets & Past Performance

Measure	Target (2018)	Actual (2018)	Target Achieved?	Measure ID
Number of fatalities	Support State target	Data unavailable	N/A	1
Rate of fatalities per 100 million vehicle miles traveled				2
Number of serious injuries				3
Rate of serious injuries per 100 million vehicle miles traveled				4
Number of non-motorized fatalities and non-motorized serious injuries				5

Current Conditions and Proposed Regional Targets

Measure	Baseline (2012-2016)*	Target (2015-2019)	Target (2016-2020)	Measure ID
Number of fatalities	426.2	447.9	401.1	1
Rate of fatalities per 100 million vehicle miles traveled	0.688	0.702	0.622	2
Number of serious injuries	1,890.2	2,037.4	1,800.9	3
Rate of serious injuries per 100 million vehicle miles traveled	3.050	3.190	2.793	4
Number of non-motorized fatalities and non-motorized serious injuries	753.2	736.9	702.0	5

* = based upon most recently available data (2016); uses five-year rolling average (2012-2016)