Metropolitan Transportation Commission

Planning Committee

February 10, 2023 **Agenda Item 3b**

Federal Performance Target-Setting Update – February 2023

Subject:

Update on performance measures related to Infrastructure Condition; System Reliability; Freight Movement and Economic Vitality; Congestion Reduction; and Safety, including past performance and near-term targets.

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, while also moving toward a performance-based planning and programming paradigm. Through this 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. Under MTC Resolution No. 4295 adopted in June 2017, the Commission 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.

This memorandum summarizes MTC's target-setting actions for Infrastructure Condition; System Reliability; Freight Movement and Economic Vitality; Congestion Reduction; and Safety and presents the methodology and rationale used to arrive at the targets. This will be the second 4-year performance period for performance measures related to Infrastructure Condition; System Reliability; Freight Movement and Economic Vitality; and Congestion Reduction. It will be the sixth 1-year performance period for performance measures related to Safety.

MTC's approach to setting targets for federally mandated performance measures is to support targets set by the state if state targets align with regional priorities and there is no regulatory requirement for MPOs to establish regional targets. In this cycle, MTC opted to support state targets for Infrastructure Condition; System Reliability; and Freight Movement and Economic

Vitality. MTC established regional targets for Congestion Reduction in partnership with Caltrans as is required under federal rules and established regional targets for Safety to align with Vision Zero principles rather than supporting the state's less ambitious targets.

Issues:

The continued effects of the COVID-19 pandemic on traveler behavior and ensuing reductions in transit operating revenues result in considerable uncertainty regarding near-term transportation system performance. While not unique to the Bay Area, these future uncertainties make it difficult to forecast near-term performance and set attainable regional targets. There are no penalties for MPOs that fail to meet performance targets, and targets are updated on a regular basis as outlined in federal regulations.

Next Steps:

The next round of target-setting for federal performance measures will occur in spring 2023, where MTC will set targets for Transit Safety and Transit State of Good Repair in collaboration with Bay Area transit operators. MTC will continue to monitor regional performance for all federal performance measures.

Attachments:

- Attachment A: List of Federally Required Performance Measures
- Attachment B: 2022 Target-Setting Summary: Infrastructure Condition
- Attachment C: 2025 Targets for Infrastructure Condition
- Attachment D: 2022 Target-Setting Summary: System Reliability and Freight Movement and Economic Vitality
- Attachment E: 2025 Targets for System Reliability and Freight Movement and Economic Vitality
- Attachment F: 2022 Target-Setting Summary: Congestion Reduction
- Attachment G: 2025 Targets for Congestion Reduction
- Attachment H: 2022 Target-Setting Summary: Safety
- Attachment I: 2023 Targets for Safety

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List of Federally Required Performance Measures

FEDERAL GOAL AREA	GENERAL MEASURES IN LAW	FINAL PERFORMANCE MEASURES	TARGET-SETTING FREQUENCY	TARGET-SETTING DUE DATES
Safety	Number of Fatalities on Roads	**1. Total number of road fatalities**	**Annual**	State: **annually in August** MPO: **annually in February**
	Rate of Fatalities on Roads	**2. Road fatalities per 100 Million Vehicle Miles Traveled (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**

FEDERAL GOAL AREA	GENERAL MEASURES IN LAW	FINAL PERFORMANCE MEASURES	TARGET-SETTING FREQUENCY	TARGET-SETTING DUE DATES
	Safety of Public Transit Systems	**6. Total number of reportable transit fatalities** **7. Reportable transit fatalities per revenue vehicle mile (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** **10. Total number of reportable transit safety events** **11. Reportable transit safety events per RVM by mode** **12. Mean distance between major mechanical failures by mode**	**Annual**	Operators: **annually in July** MPO: **annually in January**
Infrastructure Condition	Pavement Condition on the Interstate Highway System	**13. Percentage of pavements on the Interstate Highway System in good condition** **14. Percentage of pavements on the Interstate Highway System in poor condition**	**Every 4 years**	State: **May 2022** MPO: **November 2022**

FEDERAL GOAL AREA	GENERAL MEASURES IN LAW	FINAL PERFORMANCE MEASURES	TARGET-SETTING FREQUENCY	TARGET-SETTING DUE DATES
	Pavement Condition on the National Highway System	**15. Percentage of pavements on the non-Interstate National Highway System in good condition** **16. Percentage of pavements on the non-Interstate National Highway System in poor condition**	**Every 4 years**	State: **May 2022** MPO: **November 2022**
Infrastructure Condition	Bridge Condition on the National Highway System	**17. Percentage of National Highway System bridges by deck area classified in good condition** **18. Percentage of National Highway System 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 useful life benchmark (ULB) by asset class** *(example below)* *a. Motor bus* *b. Light rail vehicle* *c. etc.* **20. Percentage of facilities within a condition rating below fair by asset class** *(example below)* *a. Administrative and maintenance facilities*	**Annual**	Operators: **annually in October** MPO: **annually in April**

FEDERAL GOAL AREA	GENERAL MEASURES IN LAW	FINAL PERFORMANCE MEASURES	TARGET-SETTING FREQUENCY	TARGET-SETTING DUE DATES
		b. Passenger facilities **21. Percentage of guideway directional route-miles with performance restrictions** **22. Percentage of non-revenue vehicles that have met or exceeded their ULB**		
System Performance	Performance of the Interstate Highway System	**23. Percentage of person-miles traveled on the Interstate Highway System that are reliable**	**Every 4 years**	State: **December 2022** MPO: **June 2023**
	Performance of the National Highway System	**24. Percentage of person-miles traveled on the non-Interstate National Highway System that are reliable** **25. ~~Percent change in National Highway System tailpipe CO_2 emissions compared to 2017 baseline~~** *(eliminated by FHWA in spring 2018)*	**Every 4 years**	State: **December 2022** MPO: **June 2023**
Freight Movement and Economic Vitality	Freight Movement on the Interstate Highway	**26. Interstate Highway System truck travel reliability index**	**Every 4 years**	State: **December 2022** MPO: **June 2023**

FEDERAL GOAL AREA	GENERAL MEASURES IN LAW	FINAL PERFORMANCE MEASURES	TARGET-SETTING FREQUENCY	TARGET-SETTING DUE DATES
	System			
Congestion Reduction	Traffic Congestion	**27. Annual hours of peak-hour excessive delay per capita by urbanized area (UA)** a. San Francisco-Oakland UA b. San Jose UA c. Concord UA d. Santa Rosa UA e. Antioch UA **28. Percent of non-single-occupancy vehicle (SOV) travel by urbanized area** a. San Francisco-Oakland UA b. San Jose UA c. Concord UA d. Santa Rosa UA e. Antioch UA	**Every 4 years**	State: **December 2022** MPO: **June 2023** *Note that targets must be fully consistent with state targets; therefore the de facto target-setting deadline for both State and MPO is December 2022.*

FEDERAL GOAL AREA	GENERAL MEASURES IN LAW	FINAL PERFORMANCE MEASURES	TARGET-SETTING FREQUENCY	TARGET-SETTING DUE DATES
Environmental Sustainability	On-Road Mobile Source Emissions	**29. Total emissions reductions from CMAQ-funded projects by pollutant** a. $PM_{2.5}$ b. PM_{10} c. CO d. VOC e. NO_x	**Every 4 years**	State: **December 2022** MPO: **June 2023**
Reduced Project Delivery Delays	*none*	***none*** *(neither MAP-21 nor FAST included performance measures for this goal)*	***N/A***	***N/A***

2022 Target-Setting Summary: Infrastructure Condition

Overview

The final rule from the Federal Highway Administration (FHWA) established six performance measures to assess performance for Infrastructure Condition. The rule contained new requirements for State Departments of Transportation (DOTs) and metropolitan planning organizations (MPOs). The major requirements of the rule related to Infrastructure Condition are:

1) **Infrastructure Condition Targets** – The final rule established six performance measures to assess progress towards the Infrastructure Condition goal, defined as such:

Measure	Definition
Percentage of pavements on the Interstate Highway System (IHS) in good condition	The area of IHS pavement where cracking, roughness, and rutting/faulting (in the case of asphalt and jointed concrete) metrics are all rated "good" divided by the total area of IHS pavement.
Percentage of pavements on the IHS in poor condition	The area of IHS pavement where cracking, roughness, and rutting/faulting (in the case of asphalt and jointed concrete) metrics are all rated "poor" divided by the total area of IHS pavement.
Percentage of pavements on the non-Interstate National Highway System (NHS) in good condition	The area of NHS Highway System pavement where cracking, roughness, and rutting/faulting (in the case of asphalt and jointed concrete) metrics are all rated "good" divided by the total area of NHS highway pavement.
Percentage of pavements on the non-Interstate NHS in poor condition	The area of NHS pavement where cracking, roughness, and rutting/faulting (in the case of asphalt and jointed concrete) metrics are all rated "poor" divided by the total area of NHS pavement.

Measure	Definition
Percentage of NHS bridges by deck area classified as in good condition	The share of NHS deck area with a National Bridge Inventory (NBI) condition rating greater than or equal to 7. Bridges are rated on deck, superstructure, substructure, and culvert, and the NBI rating is the lowest of these items.
Percentage of NHS bridges by deck area classified as in poor condition	The share of NHS deck area with an NBI condition rating less than or equal to 4. Bridges are rated on deck, superstructure, substructure, and culvert, and the NBI rating is the lowest of these items.

State DOTs must establish two-year and four-year numerical targets for pavement condition on the Interstate and the non-Interstate NHS and for bridge condition on the NHS. MPOs must support the four-year State targets or set their own regional targets.

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 are expected to report baseline conditions and targets to their State DOT in their Regional Transportation Plans.
3) **Evaluation –** State DOTs are evaluated on whether or not they have made "significant progress" based on an analysis of estimated condition/performance and measured condition/performance of the targets. Significant progress is made when actual performance is better than baseline performance or actual performance is equal to or better than the established target.

MPOs were required to support State targets for 2025 or establish their own 2025 targets for Infrastructure Condition by November 22, 2022, 180 days after the state DOT requirement. State and MPO targets are set every 4 years; States are allowed to adjust the 4-year targets (e.g., 2025 targets for this round) at the halfway point of the four-year cycle (Spring 2024).

Target-Setting Approach

Caltrans established targets for 2023 and 2025 based on an inventory of existing pavement and bridge condition on the IHS and non-Interstate NHS. Taking into account the sustained infusion of funds from Senate Bill 1 and local tax measures, Caltrans projected either small decreases in

performance (in the case of Interstate pavement assessed as "good" or "poor" and NHS pavement assessed as "poor") or small increases in performance over the four-year performance period. Additionally, Caltrans acknowledged that the full benefits of such funding programs may not manifest until more than four years from now.

The Bay Area generally underperforms the State averages in pavement and bridge condition (Table 1). Highway pavement condition within the Bay Area has been stagnant since the early 2000s, while bridge condition has been improving, due in part to toll revenue expenditures to improve resilience to seismic events. However, considerable variation in bridge condition remains between Bay Area counties, due in part to differing asset ages and maintenance budgets.

Table 1: Baseline Data and State Targets for Infrastructure Condition

	Bay Area	**State**		
	Baseline*	Baseline*	2023 Target	2025 Target
Percentage of pavements on the IHS in good condition	Data pending	47.9%	47.2%	49.2%
Percentage of pavements on the IHS in poor condition	Data pending	1.9%	1.9%	1.7%
Percentage of pavements on the non-Interstate NHS in good condition	1.7%	23.8%	21.7%	28.2%
Percentage of pavements on the non-Interstate NHS in poor condition	12.5%	9.9%	10.5%	9.0%
Percentage of NHS bridges by deck area classified as in good condition	26.6%	48.5%	49.1%	47.3%
Percentage of NHS bridges by deck area classified as in poor condition	19.8%	5.4%	5.9%	4.4%

Data source: Federal Highway Administration Highway Performance Monitoring System and National Bridge Inventory

***** = *based upon most recently available data (2019). Note that Caltrans has not yet released MPO-level interstate pavement condition data.*

The targets set by the State in this cycle aim for either an improvement in pavement and bridge condition or a mitigation of decline in condition. These targets mesh with MTC's own goals for pavement and bridge condition in our region. While the forecasted changes in infrastructure condition over the upcoming performance period are small, staff emphasize that achieving larger improvements to conditions over a short time period is likely not possible. Over the longer term, funding from sources like Senate Bill 1 may result in more meaningful improvements in performance for these measures. As such, MTC will support State targets for 2023 and 2025, as opposed to setting numerical regional targets.

2025 Targets for Infrastructure Condition

General Information

Goal	Infrastructure Condition
Performance Measure(s)	• Percentage of pavements on the Interstate Highway System (IHS) in good condition • Percentage of pavements on the IHS in poor condition • Percentage of pavements on the non-Interstate National Highway System (NHS) in good condition • Percentage of pavements on the non-Interstate NHS in poor condition • Percentage of NHS bridges by deck area classified as in good condition • Percentage of NHS bridges by deck area classified as in poor condition
Target(s) for Year	2023 and 2025
Target(s) Submission Date	November 22, 2022

Current Conditions and Regional Targets

Measure	Baseline*	Target (2023)	Target (2025)	Measure ID
Percentage of pavements on the IHS in good condition	Data pending	N/A	Support State target	*13*
Percentage of pavements on the IHS in poor condition	Data pending	N/A	Support State target	*14*
Percentage of pavements on the non-Interstate NHS in good condition	1.7%	N/A	Support State target	*15*
Percentage of pavements on the non-Interstate NHS in poor condition	12.5%	N/A	Support State target	*16*
Percentage of NHS bridges by	26.6%	N/A	Support State	*17*

Measure	Baseline*	Target (2023)	Target (2025)	Measure ID
deck area classified as in good condition			target	
Percentage of NHS bridges by deck area classified as in poor condition	19.8%	N/A	Support State target	*18*

***** = *based upon most recently available data (2019). Note that Caltrans has not yet released MPO-level interstate pavement condition data.*

2022 Target-Setting Summary: System Reliability and Freight Movement and Economic Vitality

Overview

The final rule from the Federal Highway Administration (FHWA) established three performance measures to assess performance for system performance as it relates to the reliability of passenger and freight movement. The rule contained new requirements for State Departments of Transportation (DOTs) and metropolitan planning organizations (MPOs). The major requirements of the rule related to system performance are:

1) **System Reliability and Freight Movement and Economic Vitality Targets** – The final rule established two performance measures to assess progress towards the System Reliability goal and one performance measure to assess progress towards Freight Movement and Economic Vitality goal, defined as such:

Measure	Definition
Percent of the person-miles traveled on the Interstate Highway System (IHS) that are reliable	Percent of person-miles traveled on the Interstate that are reliable, where reliable is defined as a Level of Travel Time Reliability (LOTTR) metric of below 1.50 during all time periods for a given segment. LOTTR is calculated as the 80th percentile travel time in seconds divided by the 50th percentile travel time in seconds.
Percent of person-miles traveled on the non-Interstate National Highway System (NHS) that are reliable	Percent of person-miles traveled on the non-Interstate NHS that are reliable, where reliable is defined in the same way as described above.
Truck travel time reliability index	The sum of the maximum truck travel time reliability index score for each segment, divided by the total IHS miles. Truck travel time reliability index is calculated as the 95th percentile of truck travel time in seconds divided by the 50th percentile travel time in seconds.

State DOTs are required to establish two-year and four-year numerical targets for reliability of passenger travel on the IHS and non-Interstate NHS and freight travel on the NHS. MPOs must support the four-year State targets or set their own regional targets.

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 are expected to report baseline conditions and targets to their State DOT in their Regional Transportation Plans.
3) **Evaluation –** State DOTs are evaluated on whether or not they have made "significant progress" based on an analysis of estimated condition/performance and measured condition/performance of the targets. Significant progress is made when actual performance is better than baseline performance or actual performance is equal to or better than the established target.

MPOs are required to support State targets for 2025 or establish their own 2025 targets for System Reliability and Freight Movement and Economic Vitality by June 14, 2023, 180 days after the state DOT requirement. State and MPO targets are set every 4 years; States are allowed to adjust the 4-year targets (e.g., 2025 targets for this round) at the halfway point of the four-year cycle (Winter 2024).

Target-Setting Approach

Caltrans established targets for 2023 and 2025 based on an assessment of existing passenger and truck travel reliability data made available through the National Performance Management Research Dataset. Taking into account the sustained infusion of funds from Senate Bill 1 and local tax measures, Caltrans expects to see small improvements in passenger reliability and a continuation of existing trends for freight reliability in the coming years. As with performance related to the Infrastructure Condition goal area, Caltrans acknowledged that the full benefits of such funding programs may not be fully realized within the upcoming four-year performance period. While reliability for passenger and freight travel in the 2021 baseline was better than in past years likely due to reduced travel demand following the onset of the COVID-19 pandemic in 2020, the state remains committed to further building on that improvement in performance by setting targets that represent an improvement over the baseline.

The Bay Area generally underperforms the state average in both passenger and freight reliability (Table 2), though in 2021, travel on the Bay Area portion of the IHS was slightly more reliable than the state average. This may reflect a slower recovery of vehicular traffic on the Bay Area portion of the IHS when compared to trends at the state level, likely due to higher rates of telecommuting in the Bay Area. In terms of the truck travel time reliability index, in which larger numbers indicate lower levels of reliability, Bay Area roads are also slightly less reliable than the state average.

Table 2: Baseline Data and State Targets for System Reliability and Freight Movement and Economic Vitality

	Bay Area	**State**		
	Baseline*	Baseline*	2023 Target	2025 Target
Percent of the person-miles traveled on the IHS that are reliable	76.3%	73.8%	74.3%	74.8%
Percent of person-miles traveled on the non-Interstate NHS that are reliable	82.0%	83.7%	84.2%	84.7%
Truck travel time reliability index	1.9	1.6	1.6	1.6

Data source: National Performance Management Research Dataset

***** = *based upon most recently available data (2021)*

The targets set by the State in this round of target-setting aim for increased reliability for passenger transportation and a continuation of current trends for freight reliability. Overall, these targets are in sync with MTC's own goals for reliability in our region. While the envisioned improvements are small, achieving larger improvements to reliability over such a small time scale (four years) is not likely to occur. As such, MTC will support State targets for 2023 and 2025, as opposed to setting numerical regional targets.

2025 Targets for System Reliability and Freight Movement and Economic Vitality

General Information

Goals	System Reliability and Freight Movement and Economic Vitality
Performance Measure(s)	• Percent of the person-miles traveled on the Interstate that are reliable • Percent of the person-miles traveled on the non-Interstate NHS that are reliable • Truck travel time reliability index
Target(s) for Year	2023 and 2025
Target(s) Submission Date	June 14, 2023

Current Conditions and Regional Targets

Measure	Bay Area Baseline* (2021)	Target (2023)	Target (2025)	Measure ID
Percent of the person-miles traveled on the Interstate that are reliable	76.3%	Support State target	Support State target	*23*
Percent of person-miles traveled on the non-Interstate NHS that are reliable	82.0%	Support State target	Support State target	*24*
Truck travel time reliability index	1.9	Support State target	Support State target	*26*

***** = *based upon most recently available data (2021)*

2022 Target-Setting Summary: Congestion Reduction

Overview

The final rule from the Federal Highway Administration (FHWA) established two performance measures to assess performance for Congestion Reduction, which are required for regions receiving Congestion Mitigation and Air Quality (CMAQ) funding, in accordance with MAP-21. The rule contained new requirements for State Departments of Transportation (DOTs) and metropolitan planning organizations (MPOs). The major requirements of the rule related to congestion reduction are:

1) **Congestion Reduction Targets** – The final rule established two performance measures to assess progress towards the Congestion Reduction goal, defined as such:

Measure	Definition
Annual hours of peak-hour excessive delay per capita by urbanized area	The number of person-hours per year for which people experience excess delay – defined as travel times below 20 mph or 60 percent of the posted speed limit during peak periods – on the National Highway System, divided by the population of the applicable urbanized area.
Percent of non-single-occupancy vehicle (SOV) travel by urbanized area	Share of commute trips for which the primary mode is not a single-occupant vehicle as defined by the U.S. Census Bureau, including travel avoided by telecommuting.

State DOTs and MPOs must set two-year and four-year numerical targets every four years for each CMAQ measure to comply with the regulation. Unlike most other targets, the state DOT and MPO targets for each urbanized area must be fully consistent.

2) **Reporting** – MTC must report progress on these measures in future Regional Transportation Plans (RTPs) and Transportation Improvement Programs (TIPs), as well as through the CMAQ Performance Plan requirement. FHWA will review MPO performance as part of the triennial review process.

3) **Evaluation –** State DOTs and MPOs are not subject to "significant progress" determinations for targets under the CMAQ program. Instead, state DOTs will be evaluated for making progress towards the related Congestion Reduction targets.

MPOs are required to establish their 2023 and 2025 targets for traffic congestion and mode shift by June 14, 2023, 180 days after the state DOT sets its targets. However, because the state DOT and MPO targets must be fully consistent for these measures, the *de facto* deadline for target-setting was December 16, 2022. These targets are set every 4 years; adjustments to the 4-year targets (e.g., 2025 targets for this round) are allowed at the halfway point of the four-year cycle (Winter 2024).

Per federal guidelines, baseline and target performance for non-SOV mode share are both reported as 5-year rolling averages, meaning baseline performance represents the average of the years 2017-2021, 2-year targets represent the average of the years 2022-2023, and 4-year targets represent the average of the years 2022-2025. Targets must be set for urbanized areas with a population of more than 200,000.

Target-Setting Framework

In compliance with federal performance management rules, state and regional performance targets for congestion and mode shift must be fully consistent with those set by Caltrans. Caltrans held several workshops across the state with MPO partners to determine the appropriate approach for setting targets. There was significant discussion regarding the tradeoffs between setting ambitious or achievable targets, especially given uncertainties regarding transportation patterns stemming from the COVID-19 pandemic and near-term funding challenges for transit operations.

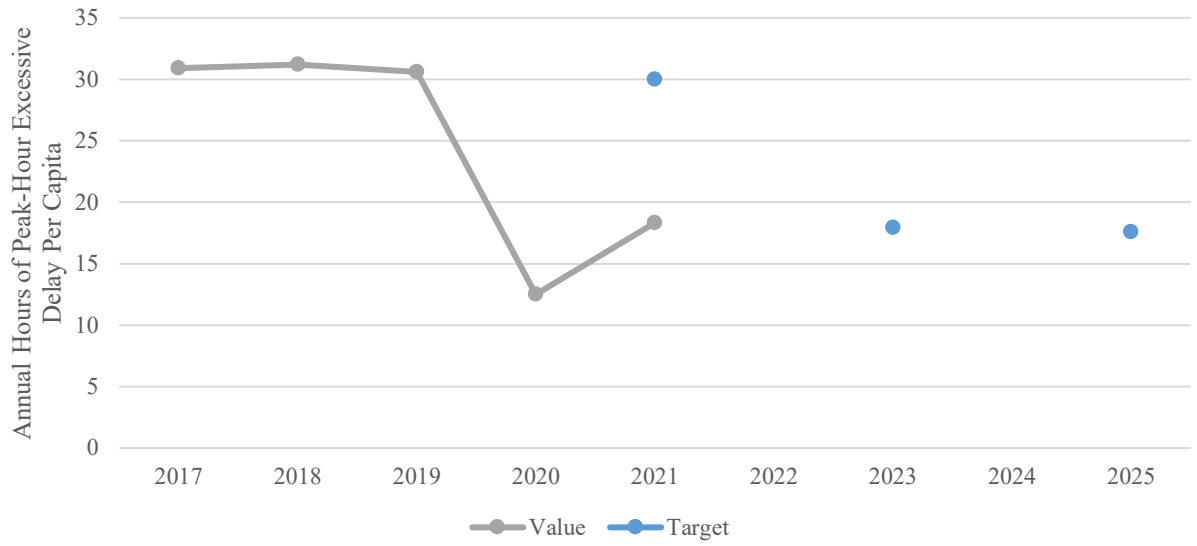
In the prior performance period beginning in 2018, staff sought input from stakeholders on target-setting options through meetings of MTC's Regional Advisory Working Group. Stakeholders noted that the target-setting approach should be consistent across the Bay Area's urbanized areas and aligned with the longer-range trajectory of the Regional Transportation Plan, Plan Bay Area 2040. Non-SOV mode share targets were set based on a 2 percentage point increase over the performance period and delay targets were set based on a 4% decrease over the performance period.

Per guidance from Caltrans, 2-year and 4-year targets were set for non-SOV mode share and 4-year targets were set for delay. In future target-setting cycles, 2-year and 4-year targets will be required for both performance measures. In this target-setting cycle, there were two urbanized areas in the Bay Area that met the eligibility threshold of a population of 1 million or more: San Francisco-Oakland and San Jose.

Delay

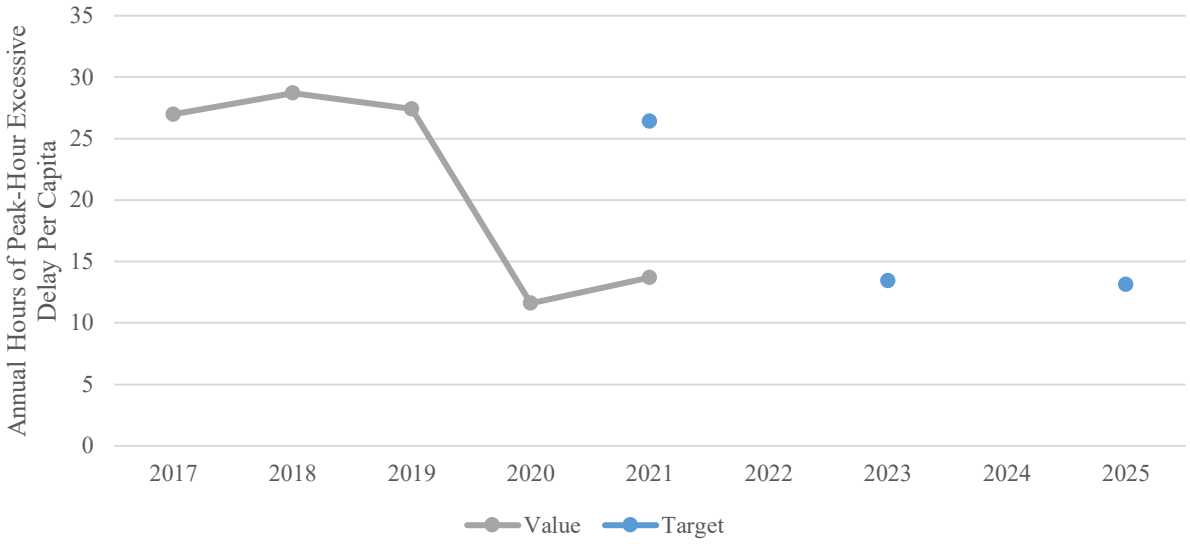
The San Francisco-Oakland UA was on track to meet its 2021 target of 30.0 annual hours of peak-hour excessive delay per capita in 2019. This downward trajectory in delay, experienced across Bay Area UAs, can be attributed in part to efforts by MTC and its partners to address congestion chokepoints such as the Forward commute initiatives. This program of capital and operating investments seeks to reduce delay along key regional corridors ranging from Napa Valley's State Route 29 to the Dumbarton Bridge. Performance improved significantly in 2020 with the onset of the COVID-19 pandemic and associated changes to travel behavior including increases in telecommuting and reductions in discretionary trips (e.g., recreation, errands). While delay ticked up in 2021 as Shelter-in-Place orders were relaxed, the San Francisco-Oakland UA greatly exceeded its target for that year. Targets for 2023 and 2025 aim for a slight improvement over 2021 performance.

Figure 1: Annual Hours of Peak-Hour Excessive Delay Per Capita Performance and Targets (San Francisco-Oakland UA)



The San Jose UA was also within reach of its 2021 target of 26.4 annual hours of peak-hour excessive delay per capita in 2019, and experienced a similar jump in performance in 2020. While delay ticked up in 2021, the San Jose UA greatly exceeded its target for that year. Targets for 2023 and 2025 aim for a slight improvement over 2021 performance.

Figure 2: Annual Hours of Peak-Hour Excessive Delay Per Capita Performance and Targets (San Jose UA)



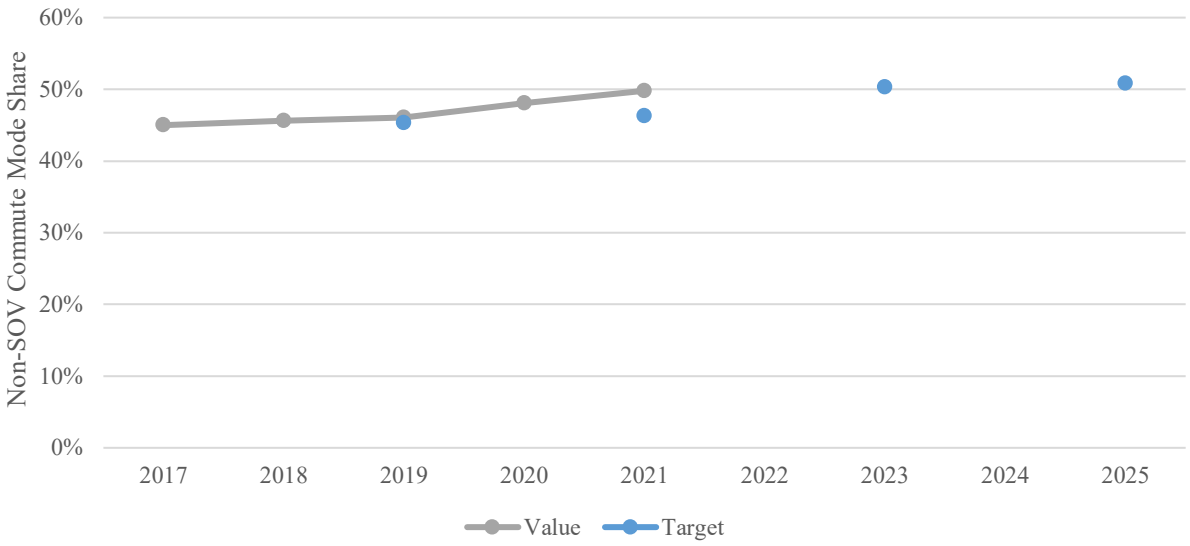
The three less populous UAs (Antioch, Concord, and Santa Rosa) experienced similar trajectories in the period spanning from 2017 to 2021. The Concord UA most closely mirrored the performance of San Francisco-Oakland and San Jose, as Concord has a similar share of residents that are white collar workers, with many residents commuting to workplaces within the San Francisco-Oakland or San Jose UAs. On the other hand, overall delay was much smaller for residents of Antioch and Santa Rosa (around 10 hours in 2019 and around 6 hours in 2021 in both geographies), reflecting that residents of these urbanized areas may be more likely to travel to destinations outside of severely congested routes like the Bay Bridge corridor. Targets for 2023 and 20205 for these three UAs will also be set based on a slight reduction over the 2021 baseline.

Non-SOV Mode Share

The San Francisco-Oakland UA exceeded its 2019 target of 45.3%, with a non-SOV mode share of 46.1%. Improvements in mode share performance are influenced by a number of MTC's activities, including programs to encourage a lower-VMT land use pattern through grants for Priority Development Area planning and investments in transit and active transportation funded through the One Bay Area Grant program.

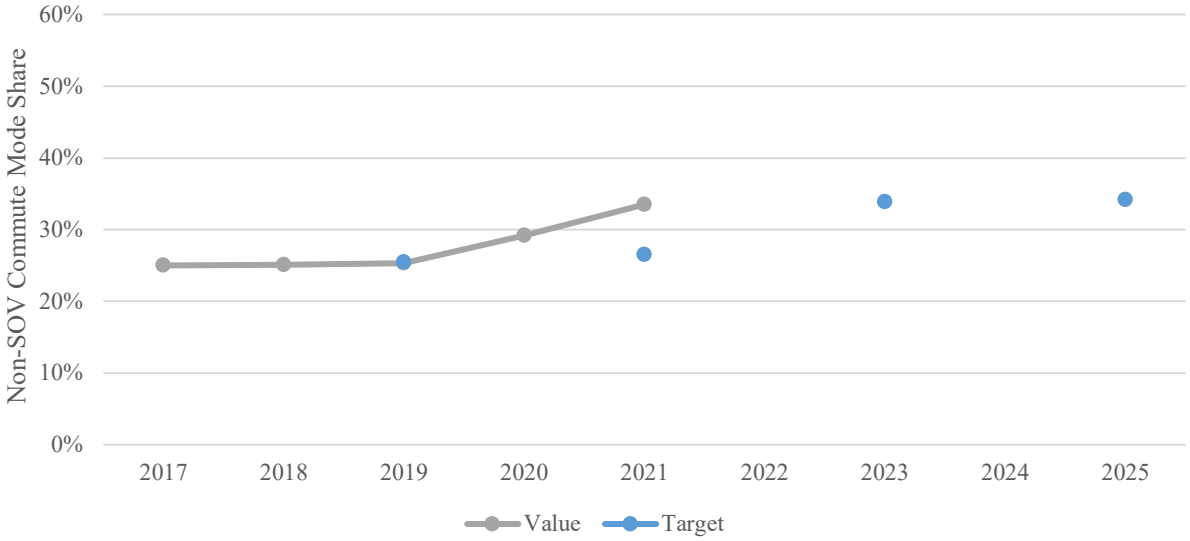
As this performance measure uses a five-year rolling average, changes in 2020 mode share are relatively minor, as they represent the average of 2016 through 2020. Still, non-SOV mode share continued to increase in 2020 and 2021, reaching a new high of just under 50% in 2021. Targets for 2023 and 2025 aim for a slight improvement over 2021 performance.

Figure 3: Percent of Non-SOV Travel Performance and Targets (San Francisco-Oakland UA)



The San Jose UA nearly met its 2019 target of 25.5%, with a non-SOV mode share of 25.3%. Compared with the San Francisco-Oakland UA, increases in non-SOV mode share in the San Jose area were notably larger, with non-SOV mode share increasing by eight percentage points between 2019 and 2021 compared with a three percentage point increase in San Francisco-Oakland. This could be due to the fact that a larger share of office-based workers residing in the San Jose UA commuted to work in single-occupancy vehicles, while office-based workers residing in the San Francisco-Oakland UA tended to commute by transit or active modes. Thus, when many office-based workers shifted to telecommuting in 2020 and 2021, workers in the San Francisco-Oakland UA shifted from one non-SOV mode (e.g., transit, walking) to another (telecommuting), while more workers in the San Jose UA shifted from SOV commuting to non-SOV commuting (telecommuting). Targets for 2023 and 2025 aim for a slight improvement over 2021 performance.

Figure 4: Percent of Non-SOV Travel Performance and Targets (San Jose UA)



The three less populous UAs (Antioch, Concord, and Santa Rosa) experienced more varied trajectories in the period spanning from 2017 to 2021. As with delay, the Concord UA performed similarly to San Francisco-Oakland and San Jose, likely due to the similarities in resident demographics described above. Conversely, the non-SOV mode share in Antioch and Santa Rosa did not change substantially between 2017 and 2021, increasing by 1.3% and 1.7%, respectively. This may be attributed to the types of jobs held by residents of these geographies, which may have been less well-suited to remote work. For instance, the North Bay is home to many agricultural or tourism jobs which cannot be done remotely, so residents of Santa Rosa and the surrounding areas may have been less likely to change their travel behavior toward telecommuting. Similarly, average incomes in Antioch are lower than the Bay Area average, which may indicate that residents are more likely to work service sector jobs that also cannot be done remotely. Targets for 2023 and 2025 for these three UAs will also be set based on a slight improvement over the 2021 baseline.

Target-Setting Approach

For the current performance cycle, Caltrans and MTC reached a consensus to use the same target-setting approach as the prior performance period, setting targets to slightly reduce congestion and slightly increase non-SOV mode share over the next four years across all applicable urbanized areas, given regional and state climate goals. The universe of eligible urbanized areas expanded to include geographies with a population of 200,000 or more, adding Antioch, Concord, and Santa Rosa to the list of eligible Bay Area urbanized areas. While these targets will be challenging to meet given the

aforementioned challenges related to COVID-19 and transit operating revenues, these targets align with state and regional goals to further reduce reliance on SOV travel.

Summary of Targets

Measure and Urbanized Area (UA)	Current*	2023 Target	2025 Target
Annual hours of peak-hour excessive delay per capita *(San Francisco-Oakland UA)*	18.3	17.9	17.6
Annual hours of peak-hour excessive delay per capita *(San Jose UA)*	13.7	13.4	13.2
Annual hours of peak-hour excessive delay per capita *(Concord UA)*	16.0	15.7	15.4
Annual hours of peak-hour excessive delay per capita *(Santa Rosa UA)*	6.6	6.5	6.3
Annual hours of peak-hour excessive delay per capita *(Antioch UA)*	6.5	6.4	6.2
Percent of non-single-occupant vehicle travel *(San Francisco-Oakland UA)*	49.8%	50.8%	51.8%
Percent of non-single-occupant vehicle travel *(San Jose UA)*	33.5%	34.5%	35.5%
Percent of non-single-occupant vehicle travel *(Concord UA)*	39.5%	40.5%	41.5%
Percent of non-single-occupant vehicle travel *(Santa Rosa UA)*	25.1%	26.1%	27.1%
Percent of non-single-occupant vehicle travel *(Antioch UA)*	31.2%	32.2%	33.2%

***** = based upon most recently available data; 2021 data are used for congestion (peak-hour delay) and mode share. For mode share, American Community Survey 5-year estimates (2017-2021) are used in accordance with federal guidelines.*

2025 Targets for Congestion Reduction

General Information

Goal	Congestion Reduction
Performance Measure(s)	• Annual hours of peak-hour excessive delay per capita *(by urbanized area)* • Percent of non-single-occupant vehicle (non-SOV) travel *(by urbanized area)*
Target(s) for Year	2023 and 2025
Target(s) Submission Date	December 16, 2022 *(concurrence with Caltrans; de facto deadline)* June 14, 2023 *(official deadline)*

Past Targets & Past Performance

Measure and Urbanized Area	Target (2019)	Actual (2019)	Target Met?	Target (2021)	Actual (2021)	Target Met?
Annual hours of peak-hour excessive delay per capita *(San Francisco-Oakland UA)**	N/A	30.6	N/A	30.0	18.3	Yes
Annual hours of peak-hour excessive delay per capita *(San Jose UA)**	N/A	11.6	N/A	26.4	13.7	Yes
Annual hours of peak-hour excessive delay per capita *(Concord UA)***	N/A	N/A	N/A	N/A	N/A	N/A
Annual hours of peak-hour excessive delay per capita *(Santa Rosa UA)***	N/A	N/A	N/A	N/A	N/A	N/A
Annual hours of peak-hour excessive delay per capita *(Antioch UA)***	N/A	N/A	N/A	N/A	N/A	N/A
Percent of non-single-occupant vehicle travel *(San Francisco-Oakland UA)*	45.3%	47.2%	Yes	46.3%	55.4%	Yes

Measure and Urbanized Area	Target (2019)	Actual (2019)	Target Met?	Target (2021)	Actual (2021)	Target Met?
Percent of non-single-occupant vehicle travel *(San Jose UA)*	25.5%	25.5%	Yes	26.5%	48.6%	Yes
Percent of non-single-occupant vehicle travel *(Concord UA)***	N/A	N/A	N/A	N/A	N/A	N/A
Percent of non-single-occupant vehicle travel *(Santa Rosa UA)***	N/A	N/A	N/A	N/A	N/A	N/A
Percent of non-single-occupant vehicle travel *(Antioch UA)***	N/A	N/A	N/A	N/A	N/A	N/A

** =2-year targets not required for the first performance period*

*** = Targets for these urbanized areas not required for the first performance period*

Current Conditions and Targets

Measure and Urbanized Area	Current*	Target (2023)	Target (2025)	Measure ID
Annual hours of peak-hour excessive delay per capita (*San Francisco-Oakland UA*)	18.3	17.9	17.6	*US-27a*
Annual hours of peak-hour excessive delay per capita (*San Jose UA*)	13.7	13.4	13.2	*US-27b*
Annual hours of peak-hour excessive delay per capita (*Concord UA*)	16.0	15.7	15.4	*US-27c*
Annual hours of peak-hour excessive delay per capita (*Santa Rosa UA*)	6.6	6.5	6.3	*US-27d*
Annual hours of peak-hour excessive delay per capita (*Antioch UA*)	6.5	6.4	6.2	*US-27e*
Percent of non-single-occupant vehicle	49.8%	50.8%	51.8%	*US-28a*

Measure and Urbanized Area	**Current***	**Target (2023)**	**Target (2025)**	**Measure ID**
travel (*San Francisco-Oakland UA*)				
Percent of non-single-occupant vehicle travel (*San Jose UA*)	33.5%	34.5%	35.5%	*US-28b*
Percent of non-single-occupant vehicle travel (*Concord UA*)	39.5%	40.5%	41.5%	*US-28c*
Percent of non-single-occupant vehicle travel (*Santa Rosa UA*)	25.1%	26.1%	27.1%	*US-28d*
Percent of non-single-occupant vehicle travel (*Antioch UA*)	31.2%	32.2%	33.2%	*US-28e*

***** = *based upon most recently available data; 2021 data are used for congestion (peak-hour delay) and mode share. For mode share, American Community Survey 5-year estimates (2017-2021) are used in accordance with federal guidelines.*

2022 Target-Setting Summary: Safety

Overview

The final rule from the Federal Highway Administration (FHWA) established five performance measures to assess performance for Safety. The rule contained new requirements for State Departments of Transportation (DOTs) and metropolitan planning organizations (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 or confirmed serious injury.
Rate of serious injuries per 100 million vehicle miles traveled	The number of people involved in a crash with the outcome suspected or confirmed 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 DOT 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 measures. 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 2023 targets for safety by February 27, 2023, 180 days after the state DOT sets its targets.

Per federal guidelines, baseline and target performance are both reported as 5-year rolling averages, meaning baseline performance represents the average of the years 2016-2020 and the targets represent the years 2019-2023.

Target-Setting Approach

Given the Bay Area's commitment to advancing road safety and the ongoing initiatives that seek to bend the curve of fatalities and serious injuries toward zero, MTC opted to set aspirational targets in line with Vision Zero, an approach the agency has taken over the past four target-setting cycles. Such initiatives include the adoption of MTC Resolution No. 4400, establishing a Regional Safety/Vision Zero Policy, the initiation of the development of a regional safety data system, and ongoing work to support local jurisdictions through technical assistance and information-sharing networks. Under MTC's Vision Zero-based target-setting methodology, road safety targets were set based on a linear decline toward zero fatalities and serious injuries in the year 2030 starting in 2021.

This methodology differs from the methodology used by Caltrans to set targets at the state level, which sets targets based on the observed trends in fatalities and serious injuries. Under the Caltrans framework, the percentage change in statewide reported fatalities or serious injuries over the past several years is used to forecast the expected number or rate of fatalities or serious injuries in 2023. For example, the state target for the number of fatalities is based on the average annual decline between 2017 and 2020, calculated as a 0.3% reduction each year between 2021 and 2023. The state target for the number of

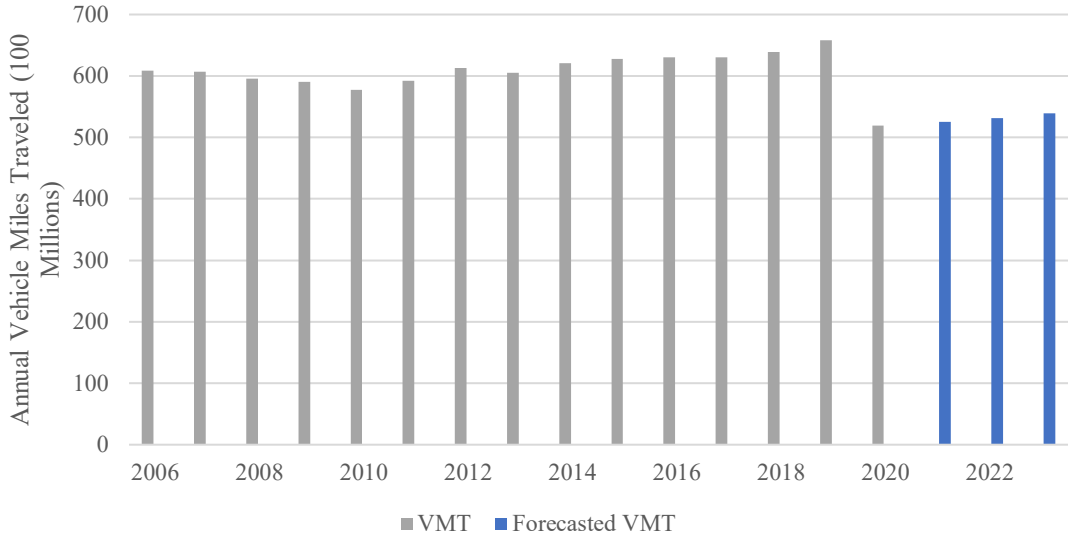
serious injuries is based on a continuation of the trend between 2018 and 2020, or an annual decrease in number of serious injuries of 2.3% statewide, which is then applied to years 2021, 2022, and 2023. In comparison, targets for the Bay Area were set based on an annual decline of 10% of the 2020 value for fatalities, serious injuries, and non-motorized fatalities and serious injuries.

A substantial time lag exists in the publishing of crash data due to the time-intensive process of collecting data from various reporting agencies and preparing data for public consumption. Final data for fatalities and serious injuries are available through 2020 from the Fatality Analysis Reporting System (FARS) and the Statewide Integrated Traffic Records System (SWITRS), respectively. While some data on the number of serious injuries for 2021 are available from SWITRS, they are considered provisional, and fatality data for 2021 are not yet available from FARS. As such, the regional targets are set using 2020 as a baseline, in line with the methodology used by Caltrans.

Annual vehicle miles traveled (VMT) data are used to set targets for the rate of fatalities and serious injuries per 100 million VMT. As finalized regional VMT data for years 2021 through 2023 are not yet available, MTC must make assumptions about what future VMT would look like. There is considerable uncertainty around how VMT may diverge from observed trends in this period given the impacts of Shelter-in-Place orders and general changes to traveler behavior stemming from the COVID-19 pandemic.

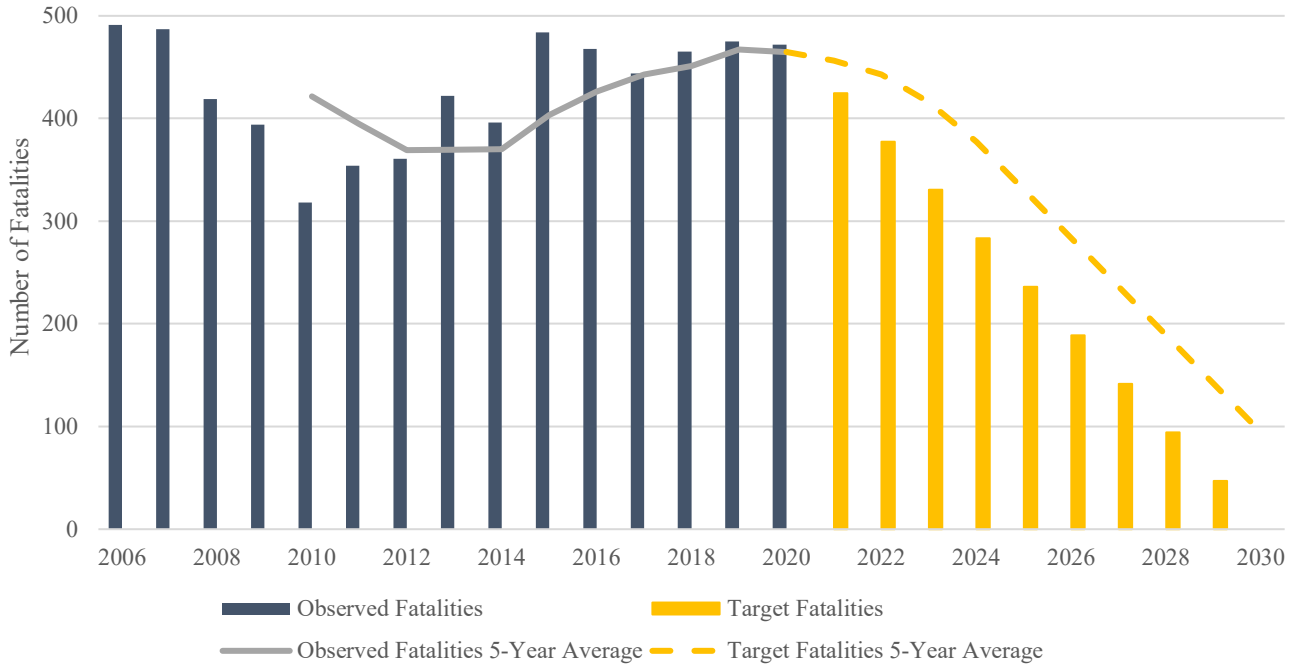
For the years 2021 through 2023, VMT in the Bay Area was assumed to increase at a rate on par with that observed in recent years prior to the onset of the COVID-19 pandemic. The average annual increase starting with 2014 to 2015 and ending with 2018 to 2019 was calculated, ranging from an increase of less than 1% to an increase of 3%. The average of the five time periods was an increase of 1.2%. VMT was anticipated to increase by this factor each year beginning in 2021.

Figure 5: MTC Observed and Forecasted Vehicle Miles Traveled for Target-Setting



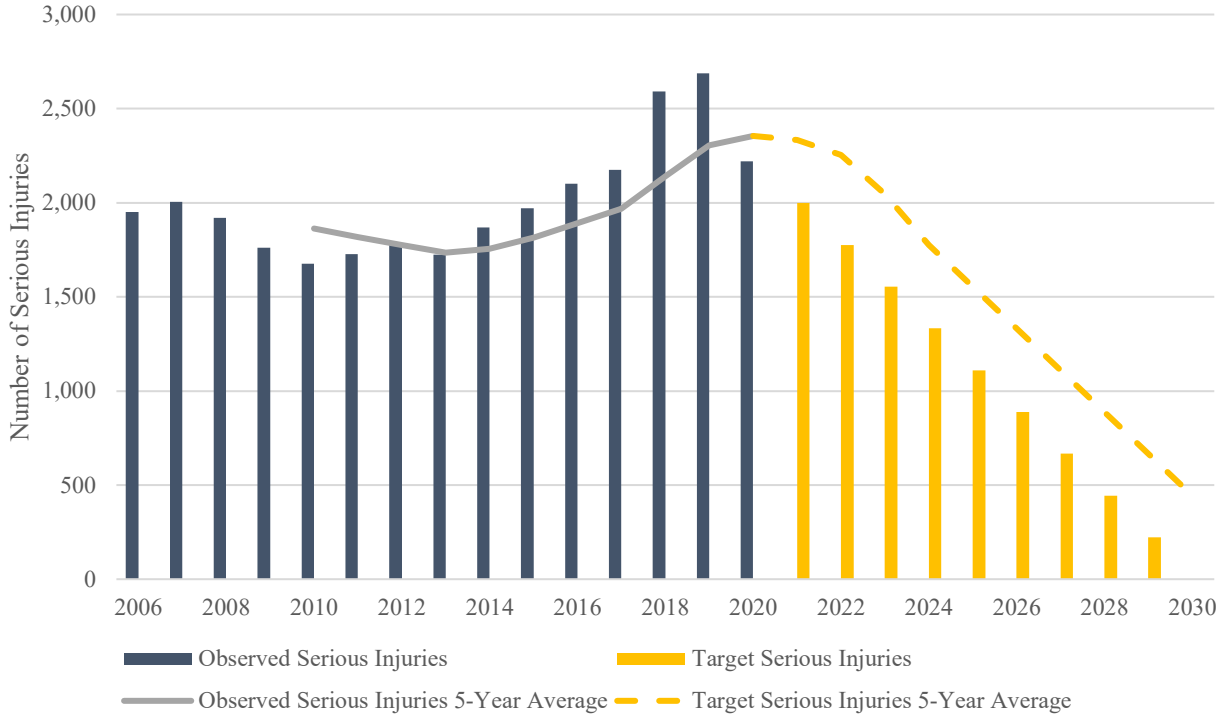
Figures 6 through 8 summarize the Bay Area's past performance and estimated future performance, upon which the targets are based, for number of fatalities, number of serious injuries, and number of non-motorized fatalities and serious injuries. The target number of fatalities or serious injuries is then divided by VMT (Figure 1) to calculate performance and targets for rate of fatalities and serious injuries per 100 million annual VMT.

Figure 6: MTC Regional Performance and Targets for Number of Fatalities



Road fatalities in the Bay Area have historically been linked with VMT – which historically has peaked during periods of high economic activity. In turn, this pattern has the potential to translate to more fatalities if safety measures are not implemented. While VMT was reduced in 2020 as people opted to take fewer discretionary trips and telecommute when possible, this did not translate to a significant dip in fatalities. The number of fatalities on Bay Area roads remained roughly steady at 472 in 2020, compared with 475 in 2019. In order to arrive at zero fatalities on Bay Area roads by the year 2030, the region would need to eliminate 47 fatalities each year.

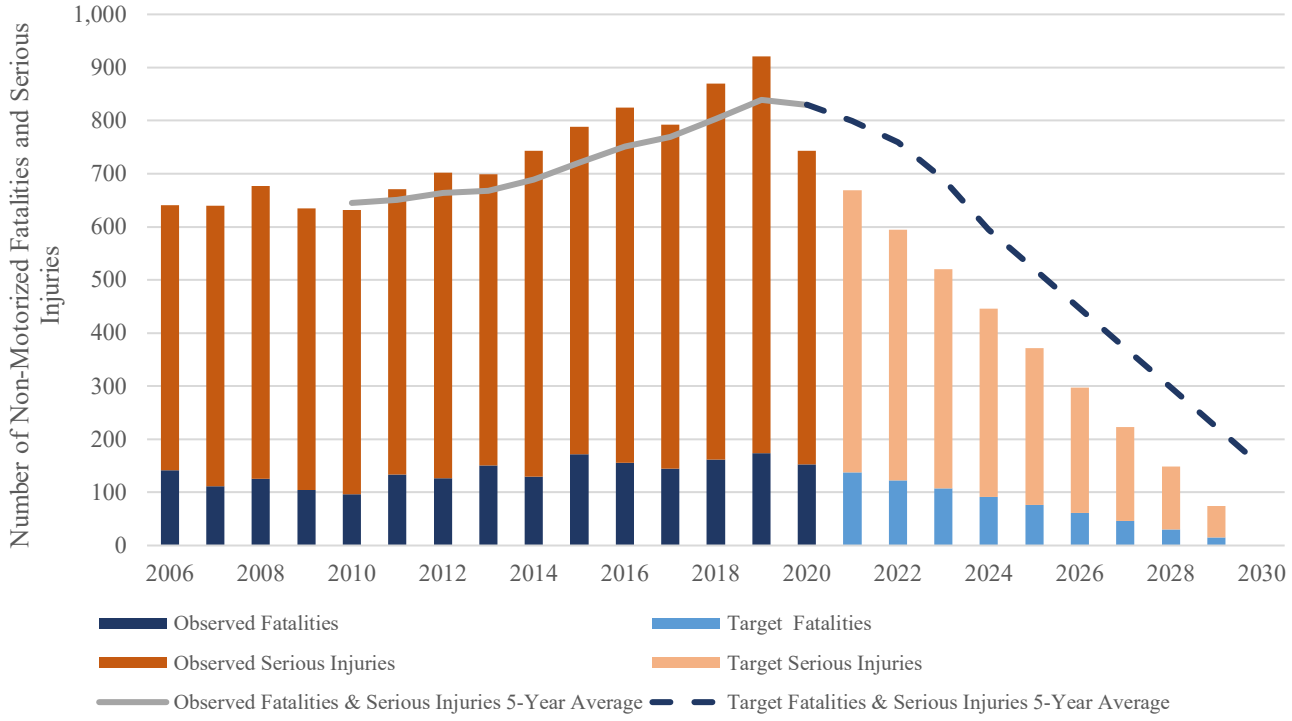
Figure 7: MTC Regional Performance and Targets for Number of Serious Injuries



As with fatalities, the number of serious injuries increased as the region recovered from the Great Recession in the early 2010s, reaching consecutive new highs every year between 2016 and 2019 with over 2,600 serious injuries occurring on the region's roads in 2019. The spike in serious injuries in 2018 and 2019 can be attributed in part to a change in the way serious injuries are quantified. In mid-2017, the definition of serious injuries was revised to include suspected serious injuries, making 2018 the first full year of this expanded definition.

Unlike fatalities, the number of serious injuries in the Bay Area decreased between 2019 and 2020, falling to 2,220. In order to arrive at zero serious injuries on Bay Area roads by the year 2030, the region would need to eliminate 220 serious injuries each year.

Figure 8: MTC Regional Performance and Targets for Number of Non-Motorized Fatalities and Serious Injuries



Pedestrians, cyclists, and those using other non-auto personal mobility options such as scooters or skateboards, referred to as "non-motorized" travelers in the context of target-setting, face a higher risk of fatality or serious injury in the event of a collision. The number of non-motorized fatalities has generally increased at a slow but steady pace, peaking in 2019 at just over 900 fatalities and serious injuries. In 2020, there was a sizeable decrease in the number of non-motorized serious injuries and a smaller reduction in the number of non-motorized fatalities, with the number of these adverse outcomes falling to the lowest number since 2014. The reduction in VMT is likely a factor, as most collisions resulting in a fatality or serious injury involve a vehicle. Additionally, local street closures such as the Slow Streets program in various Bay Area jurisdictions, which provided spaces for people to walk, bike, and roll with minimal auto traffic, could have also improved safety conditions. In order to arrive at zero non-motorized fatalities and serious injuries by the year 2030, the region would need to eliminate 15 non-motorized fatalities and 59 non-motorized serious injuries each year.

Summary of Regional Targets

Staff propose the following targets for Safety for the 5-year performance period ending in 2023. The regional targets for this performance period are set based on a linear decrease in fatalities, serious injuries, and non-motorized fatalities and serious injuries to zero in the year 2030, in line with the Vision Zero framework.

Measure	Baseline*	2023 Target
Number of fatalities	464.8	416.0
Rate of fatalities per 100 million vehicle miles traveled	0.761	0.753
Number of serious injuries	2,354.8	2,047.2
Rate of serious injuries per 100 million vehicle miles traveled	3.840	3.678
Number of non-motorized fatalities and non-motorized serious injuries	830.0	689.4

***** = *based upon most recently available data (2020); uses five-year rolling average (2016-2020).*

2023 Targets for Safety

General Information

Goal	Safety
Performance Measure(s)	• 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	2023
Target(s) Deadline for MTC Approval	February 27, 2023

Past Targets & Past Performance

Measure	Target (2016-2020)	Actual (2016-2020)*	Target Achieved?	Measure ID
Number of fatalities	401.1	464.8	No	*1*
Rate of fatalities per 100 million vehicle miles traveled	0.622	0.761	No	*2*
Number of serious injuries	1,800.9	2,354.8	No	*3*
Rate of serious injuries per 100 million vehicle miles traveled	2.793	3.840	No	*4*
Number of non-motorized fatalities and non-motorized serious injuries	702.0	830.0	No	*5*

Current Conditions and Regional Targets

Measure	Baseline (2016-2020)	Target (2019-2023)	Measure ID
Number of fatalities	464.8	416.0	*1*
Rate of fatalities per 100 million vehicle miles traveled	0.761	0.753	*2*
Number of serious injuries	2,354.8	2,047.2	*3*
Rate of serious injuries per 100 million vehicle miles traveled	3.840	3.678	*4*
Number of non-motorized fatalities and non-motorized serious injuries	830.0	689.4	*5*