2. REGIONAL PERFORMANCE

INTRODUCTION

North Central Texas stands at a pivotal moment in shaping its transportation future. As our region grows, the North Central Texas Council of Governments (NCTCOG) recognizes that mobility, safety, and reliability are essential to keeping people and goods moving. People want options—whether that means driving, taking transit, or safely walking and biking—and they need a system that supports those choices without excessive delays or barriers.

Mobility 2050 is built on data-driven decision-making and performance-based planning to ensure the transportation system functions efficiently. Public input has underscored the need to balance expanding transit options, improving walking and biking conditions, and reducing congestion to make travel more reliable. By integrating federal performance measures with local priorities, Mobility 2050 sets a course for a more connected and adaptable transportation system.

As the region faces rapid growth and technological advancements, Mobility 2050 provides a strategic blueprint to enhance travel choices, improve efficiency, and support long-term economic success.

How We Measure Success

At NCTCOG, we believe in measuring what matters. This chapter explains how we track our region's progress and plan for its future.

Our performance measurement framework rests on three pillars:

Goal-Based Performance: We evaluate our transportation system against nine strategic goals outlined in Mobility 2050. These goals represent our vision for the region's future and guide our decision-making process.

Federal Requirements: We track specific metrics required by the Federal Highway Administration and Federal Transit Administration, as mandated by recent transportation legislation (Moving Ahead for Progress in the 21st Century Act, Fixing America's Surface Transportation Act, Bipartisan Infrastructure Law, etc.).

Additional Metrics: We maintain supplementary performance measures that provide a more complete picture of our transportation system's health. These are included in various other chapters and sections as appropriate.

IN THIS CHAPTER

- Regional Performance
- Federal Performance Measures

DID YOU KNOW?

MORE TIME IN TRAFFIC: The average North Texas commute time is ==27.9 minutes==, up from ==26.8 minutes== a decade ago, reflecting growing congestion and longer trips due to outward expansion in the Dallas-Fort Worth region. Enhancing roadway efficiency and expanding travel options can help manage travel times and improve reliability.

TRANSIT ACCESS: By 2050, the percentage of residents living inside a public transit service area is projected to decline from **47 percent in 2026 to 38 percent**, despite rapid regional growth. Both expanding transit coverage and supporting land uses for transit are key to providing viable travel options in the future.

SAFETY CONCERNS: From 2019 to 2023, there were over **9,400 pedestrian and cyclist crashes** on North Texas roadways. Enhancing roadway safety, as well as walking and biking infrastructure, can help make these modes safer and more viable.

2-1. REGIONAL GOALS: PERFORMANCE AND PROGRESS

This section is being finalized and is expected to be published by April 25, 2025.

2-2. FEDERAL PERFORMANCE MEASURES

OVERVIEW

Metropolitan Planning Organizations (MPOs) like the North Central Texas Council of Governments (NCTCOG) are required by the Moving Ahead for Progress in the 21st Century Act to incorporate a performance-based approach into the transportation planning process. This includes monitoring and setting targets for a specific set of federal performance measures covering various aspects of the transportation system. These requirements were continued by subsequent legislation including the Fixing America's Surface Transportation Act and the Infrastructure Investment and Jobs Act. A series of rulemakings by the Federal Highway Administration and Federal Transit Administration specifically define the measures, calculation procedures, target-setting processes, and reporting requirements.

For these measures, local, regional, and state partners are committed to cooperatively developing and sharing information, including raw transportation performance data, performance targets, and performance reporting.

As appropriate, the Regional Transportation Council (RTC) continues to take target-setting actions for these measures. These measures are a key component of NCTCOG's broader push into performance measurement and performance-based planning and are being incorporated into planning documents like this Metropolitan Transportation Plan and the Transportation Improvement Program, as required.

FEDERAL PERFORMANCE MEASURES

This component of NCTCOG's performance-based planning process has grown over time as federal rulemaking processes established five final performance measurement-related rules relevant to MPOs like NCTCOG. Each final rule lists required measures, data sources, calculation procedures, and target-setting requirements. The final rules include:

- Highway Safety Improvement Program, known as PM1[1]
- Assessing Pavement Condition for the National Highway Performance Program and Bridge Condition for the National Highway Performance Program, known as PM2[2]
- Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and Congestion Mitigation and Air Quality Improvement Program, known as PM3[3]
- Transit Asset Management[4]
- Public Transit Agency Safety Plans[5]

Each of these rules establishes deadlines for target setting and reporting processes. For the measures identified in each rule, MPOs are required to report adopted targets, baseline performance measures, and progress toward the targets in Metropolitan Transportation Plans and Transportation Improvement Program

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[1] 81 FR 13881, 23 CFR 490
[2] 82 FR 5886, 23 CFR 490
[3] 82 FR 5970, 82 FR 22879, 23 CFR 490

[4] 81 FR 48889, 49 CFR 625, 49 CFR 630
[5] 83 FR 34418, 49 CFR 673

projects adopted two years after the effective date of the final rule. Each of the performance measure final rules were established at different times and, therefore, have different target-setting and implementation deadlines, as seen in **Table 2-X**. A more detailed summary table of the currently required measures is provided in the **Regional Performance** appendix.

NCTCOG has adopted targets and established update processes for all five performance measure rules as required. Many of these measures have been incorporated directly into project selection processes and all are used as part of Mobility 2050's performance-based planning process. Updates on these measures, including assessments of progress towards achieving adopted targets, are reported regularly to the RTC and Surface Transportation Technical Committee.

Table 2.X: Implementation and Target-Setting Schedules for Federal Performance Measures

Final Rule	Rule Effective Date	Required to be Included in Metropolitan Transportation Plans Adopted After[6]	Last Target-Setting Action	Next Target-Setting Action (Anticipated)	Target-Setting Schedule
PM1 (Highway Safety)	4/14/2016	4/14/2018	2/09/2023	Early 2028	Annually (targets established as reductions over a five-year period)
PM2 (Pavement and Bridge Condition)	5/20/2017	5/20/2019	3/13/2025	Late 2026	Biennially (four-year performance periods)
PM3 (System Performance, Freight, and Congestion Mitigation and Air Quality Improvement Program)	5/20/2017	5/20/2019	9/12/2024, 3/13/2025	Late 2026	Biennially (four-year performance periods)
Transit Asset Management	10/01/2016	10/01/2018	7/13/2023	Late 2026	Every four years
Public Transportation Agency Safety Plans	07/19/2018	7/20/2021	Mid 2025	Early 2029	Every four years

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[6] 23 CFR 450.340(f)

PM1 (HIGHWAY SAFETY)

The safety performance measure rule includes five measures related to the safety of the transportation system, including:

⮑ The number of traffic fatalities

⮑ The rate of fatalities per 100 million vehicle miles traveled

⮑ The number of serious injuries

⮑ The rate of serious injuries per 100 million vehicle miles traveled

⮑ The number of nonmotorized fatalities and nonmotorized serious injuries

This rule establishes an annual reporting and target-setting schedule. The RTC initially adopted targets for these measures in December 2017. While the RTC has adopted quantitative targets for this measure as required, this has been accompanied by a policy that even one death on the transportation system is unacceptable. Subsequently, the Regional Transportation Council directed NCTCOG staff to work with regional and state partners to develop projects, programs, and policies that assist in eliminating serious injuries and fatalities across all modes of travel. The Transportation Improvement Program has incorporated these measures in project selection processes and includes many projects that may directly lead to improvements in these measures.

In 2019, the Texas Transportation Commission directed the Texas Department of Transportation (TxDOT) to work toward a similar goal of reducing traffic fatalities by 50 percent by 2035 and zero fatalities by 2050. Due to this goal, TxDOT has updated its fatality performance measures to be in line with this vision zero goal. This more

aspirational target may be difficult to achieve, but the best way to achieve aspirational goals is to first set them. NCTCOG will support TxDOT's targets for 2023-2027 by adopting the same 50 percent reduction in the number of fatalities by 2035 and to zero for fatalities by 2050. For serious injuries, both TxDOT and NCTCOG adopted a 2 percent reduction from the trendline each year. The serious injury target is less aggressive than the fatality targets due to the assumption that if a fatal injury is prevented, that same crash may instead produce a serious injury. For the bike and pedestrian combined fatal and serious injury target, fatalities are calculated using the 50 percent reduction by 2035 methodology, and serious injuries are calculated using the 2 percent reduction from the trendline each year methodology. Reduction schedules are listed in **Table 2-X.**

Table 2-X: Growth Reduction Percentages for PM1 Measures

Year	Fatality Rate	Serious Injury Rate
2023	3.40%	2.00%
2024	3.60%	2.00%
2025	3.70%	2.00%
2026	3.80%	2.00%
2027	4.00%	2.00%

Number of Traffic Fatalities

The 2024 target seeks to reduce the number of fatalities through 2027. This target expressed as a five-year rolling average would reduce the projected number of fatalities in the region to 653.3 as shown in **Table 2-X.**

Table 2-X:

Year	Source	Number of Fatalities
2020	FARS	631
2021	FARS	726
2022	FARS	644
2023	Target	640
2024	Target	646.5*
**2024 Target expressed as 5-year average	653.3

* Based on a 50% reduction in fatalities by 2035. 2020-2022 data is observed, and 2023-2024 data is projected.
** Calculated by applying a 50% reduction trendline from 2020 to 2035 for projected data for 2023 and 2024.
FARS: National Highway Traffic Safety Administration Fatality Analysis Reporting System

Rate of Fatalities per 100 Million Vehicle Miles Traveled

The 2024 target seeks to reduce the expected increase in deaths per 100 million vehicles miles traveled (MVMT) in 2024 to not more than 0.840 per 100 MVMT regionwide, expressed as a five-year rolling average. The regional target is less than one death per 100 MVMT. The 2024 target expressed as a five-year rolling average is shown in **Table 2-X.**

Table 2-X: Five-Year Rolling Average for the Rate of Fatalities

Year	Source	Fatality Rate
2020	FARS	0.825
2021	FARS	0.9088
2022	FARS	0.769
2023	Target	0.863*
2024	Target	0.835*
**2024 Target expressed as 5-year average	0.840

* Based on a 50% reduction in fatalities by 2035. 2020–2022 data is observed and 2023–2024 data is projected.
** Calculated by applying a 50% reduction trendline from 2020 to 2035 for projected data for 2023 and 2024.
FARS: National Highway Traffic Safety Administration Fatality Analysis Reporting System

Number of Serious Injuries

The 2024 target seeks to reduce the expected increase in serious injuries to not more than 3,959.1 at the regional level expressed as a five-year rolling average. The 2024 target expressed as a five-year rolling average is shown in **Table 2-X.**

Table 2-X: Five-Year Rolling Average for the Number of Serious Injuries

Year	Source	Number of Serious Injuries
2020	CRIS	3,104
2021	CRIS	4,356
2022	CRIS	4,037
2023	Target	3,916*
2024	Target	4,382.5*
**2024 Target expressed as 5-year average		3,959.1

* Based upon linear trend analysis from 2020-2022 CRIS data. 2020–2022 data is observed and 2023–2024 data is projected.
** Calculated by applying a 2% reduction to regional projection or actual data 5-year average.
CRIS: TxDOT Crash Records Information System

Rate of Serious Injuries per 100 Million Vehicle Miles Traveled

The 2024 target seeks to reduce the expected increase in the rate of serious injuries per 100 MVMT in 2024 regionwide to 4.970 expressed as a five-year rolling average. The 2024 target expressed as a five-year rolling average is shown in **Table 2-X.**

Table 2-X: Five-Year Rolling Average for the Rate of Serious Injuries

Year	Source	Regional Actual or Target Data
2020	CRIS	4.110
2021	CRIS	5.449
2022	CRIS	4.818
2023	Target	5.189*
2024	Target	5.2824*
**2024 Target expressed as 5-year average		4.970

* Based upon linear trend analysis from 2020-2022 CRIS data. 2020–2022 data is observed and 2023–2024 data is projected.
** Calculated by applying a 2% reduction to regional projection or actual data 5-year average.
CRIS: TxDOT Crash Records Information System

Number of Nonmotorized Fatalities and Nonmotorized Serious Injuries

The 2024 target seeks to reduce the expected increase in nonmotorized fatalities and serious injuries in 2024. The target expressed as a five-year rolling average would reduce the regionwide nonmotorized fatalities and serious injuries to 674.4. The 2024 targets expressed as a five-year rolling average are shown in **Table 2-X.**

Table 2.X: Five-Year Rolling Average for the Number of Nonmotorized Fatalities and Serious Injuries

Year	Source	Regional Actual or Target Data		
		Fatalities	Serious Injuries	Combined Fatalities and Serious Injuries
2020	FARS-CRIS	191	379	570
2021	FARS-CRIS	190	453	643
2022	CRIS	208	480	688
2023	Target	208	498	706
2024	Target	216.5	548.5	765
**2024 Target expressed as 5-year average	202.7	471.7	674.4

* Based upon linear trend analysis from 2020-2022 CRIS data. 2020–2022 data is observed and 2023–2024 data is projected.
** Calculated by applying a 2% reduction to regional projection or actual data 5-year average.
FARS: National Highway Traffic Safety Administration Fatality Analysis Reporting System
CRIS: TxDOT Crash Records Information System

Addressing Highway Safety in Mobility 2050

Mobility 2050 directly addresses many of the measures in the PM1 rulemaking and has recommended policies, programs, and projects using criteria that improve the safety of the region's transportation system for many years. When conducting project evaluation and selection, safety is one of the major considerations. Safety criteria (total crash rate and fatal/incapacitating crash rate) are part of quantitative project selection components in Mobility 2050 and the region's 10-Year Plan (and eventually the Transportation Improvement

Program). Additionally, Mobility 2050 includes a number of safety-related policies, notably including policies in support of the state's Toward Zero Deaths initiative.

PM2 (PAVEMENT AND BRIDGE CONDITION)

The Pavement and Bridge Condition measures (commonly collectively known as PM2) are six measures related to roadway infrastructure condition. As with PM3 (System Performance, Freight, and Congestion Mitigation and Air Quality Improvement Program) measures discussed below, the final rule for these measures establishes a cycle of four-year performance periods, the first of which began on January 1, 2018. Most measures require a target for both the midpoint and end of the performance period. In the case of the current 2022-2026 performance period, the relevant target years are 2024 and 2026. Mobility 2050 incorporates these measures into project selection processes and includes many projects that may directly lead to improvements in these measures.

Measures in this rulemaking include:

⮕ Percentage of Pavements on the Interstate System in "Good" Condition

⮕ Percentage of Pavements on the Interstate System in "Poor" Condition

⮕ Percentage of Pavements on the Non-Interstate National Highway System in "Good" Condition

⮕ Percentage of Pavements on the Non-Interstate National Highway System in "Poor" Condition

⮕ Percentage of Bridge Deck Area on the National Highway System in "Good" Condition

⮕ Percentage of Bridge Deck Area on the National Highway System in "Poor" Condition

"Good" and "Poor" condition are defined using specific infrastructure condition metrics in the rulemaking. With these and most other measures, MPOs have the option to either support the state Departments of Transportation targets or to adopt their own quantitative targets. In 2022, NCTCOG chose to support the state's initial targets for these measures for the current performance period, with policy statements related to certain pavements and bridges in poor condition. In 2024, TxDOT exercised its option to make minor adjustments to its statewide 2026 targets for these measures, after which NCTCOG reaffirmed its support for the state's adjusted targets.

The National Highway System (NHS) network within the 12-county North Central Texas region is the largest among the 25 metropolitan areas in Texas with over 12,000 lane miles of pavement. Approximately 70 percent of the NHS network in this region are state highways under the jurisdiction of TxDOT (i.e., "on-system" roadways) and about 30 percent are county roads, city streets, and non-TxDOT toll roads managed by other agencies (i.e., "off-system" roadways). The NHS network in the region also includes more than 3,600 bridges with about 90 percent maintained by TxDOT and the remainder maintained by other agencies. Managing the condition of these assets is a priority for NCTCOG, TxDOT, local governments, and other agencies that fund and/or maintain the region's transportation system.

Related rulemaking requires each state Department of Transportation (including TxDOT) to develop a risk-based Transportation Asset Management Plan that includes an assessment of existing infrastructure conditions; identification of asset management objectives, measures, and performance gaps; and a lifecycle cost and risk management analysis, financial plan, and identification of investment strategies. In recognition of the importance of holistic asset management planning to the region's transportation system, NCTCOG supports and is working with TxDOT on its asset management process.

Pavement Condition

NCTCOG has chosen to support the pavement performance targets set by TxDOT. To specifically address off-system arterials in Poor condition, NCTCOG also approved a policy statement to work with local governments to focus on the improvement of these facilities. NCTCOG initially adopted this policy statement in 2018 and reaffirmed it in 2020. Changes in the reporting methodology for this measure have since reduced the mileage of off-system arterials that are identified as being in Poor condition significantly, but NCTCOG continues to work with all partners to improve the condition of pavements across the region.

Bridge Condition

NCTCOG has chosen to support the bridge performance targets set by TxDOT. In addition, NCTCOG approved a policy statement to expedite the programming of funding to improve NHS bridges in "poor" condition.

Addressing Pavement and Bridge Condition in Mobility 2050

Many of the roadway projects recommended by Mobility 2050 will improve the condition of the region's roadway infrastructure, reflecting NCTCOG's response to these measures and commitment to holistically managing transportation assets. As previously discussed, most NHS facilities in the region are TxDOT facilities. Staff is seeking to reduce the number of deficient pavement lane miles and bridges on these facilities by incorporating pavement and bridge condition as a criterion in the technical project selection processes for Mobility 2050 and the regional 10-Year Plan. Corridors that have poorer pavement

conditions and/or a lower Bridge Sufficiency Rating are given more priority during project selection. Pavement and bridge conditions are also improved when roadway capacity is increased, and the project includes the reconstruction of existing pavement.

Staff also has pursued other sources of funding to improve pavement and bridge conditions in the region. A specific example is NCTCOG's partnership with Dallas County on the submittal of a Fiscal Year 2024 Rebuilding American Infrastructure with Sustainability and Equity grant application for the Dallas County Inland Port Multimodal Connectivity Project, which involves the reconstruction of pavement and bridges along Belt Line Road, a National Highway System arterial segment within the cities of Lancaster and Wilmer. As a result of this effort, an awarded total of $25 million will be utilized on an $87 million overall project which, in part, will address more than six lane-miles of NHS pavement and two bridges more than 60 years old and recently rated in poor condition.

PM3 (SYSTEM PERFORMANCE, FREIGHT, AND CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM)

The System Performance, Freight, and Congestion Mitigation and Air Quality Improvement Program measures (commonly collectively known as PM3) cover a broad variety of observed measures across multiple modes of the transportation system. As with PM2 (Pavement and Bridge Condition) measures, the final rule for these measures establishes a cycle of four-year performance periods, the second of which began on January 1, 2022. Most measures require a target for both the midpoint and end of the performance period. In the case of the current performance period, the relevant target years are 2024 and

2026. NCTCOG has been monitoring these measures continuously since initial target adoption and exercised its option to revisit 2026 targets for most of these measures in late 2024 and early 2025. With these and most other measures, MPOs have the option to either support the targets adopted by the state Departments of Transportation or adopt their own quantitative targets.

For most PM3 measures, NCTCOG has chosen to adopt its own targets. The Transportation Improvement Program has incorporated these measures in project selection processes and includes many projects that may directly lead to improvements in these measures.

Measures in this rulemaking include:

⮕ Percent of Person Miles of Travel on the Interstate System that is Reliable (Interstate Reliability)

⮕ Percent of Person Miles of Travel on the Non-Interstate National Highway System that is Reliable (Non-Interstate Reliability)

⮕ Truck Travel Time Reliability

⮕ Percent Non-Single-Occupant Vehicle Travel

⮕ Peak-Hour Excessive Delay

⮕ Total Emissions Reductions (nitrogen oxides and volatile organic compounds)

Interstate and Non-Interstate Reliability

These measures quantify the proportion of travel occurring on Interstate segments and Non-Interstate NHS segments where travel times are reliable throughout the day. Reliable travel is predictable, though it may be consistently congested or consistently free flowing. Unreliable travel is unpredictable; on some days it may be congested, while on others it may be free flowing. Reliability can be influenced by operational inefficiencies, bottlenecks, crashes, weather, and other factors.

As seen in **Figures 2-X** and **2-X**, recent changes to travel behavior due to the COVID-19 pandemic had a substantial impact on these measures. While these measures have, for the most part, returned to pre-pandemic levels, additional monitoring is needed to establish a post-pandemic trend. The latest observed values for these measures and adopted targets are listed in **Table 2-X.**

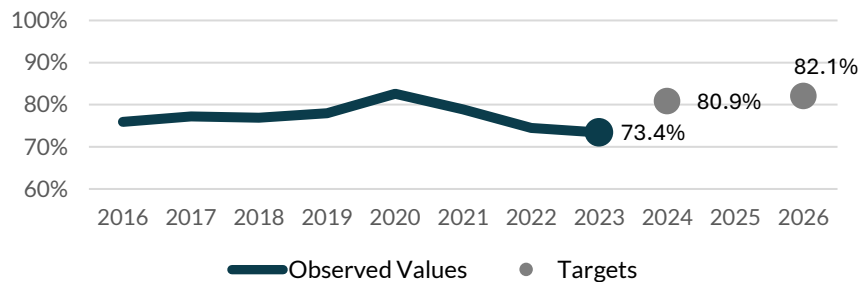Figure 2-X: Observed Data, Trends, and Targets for Interstate Reliability

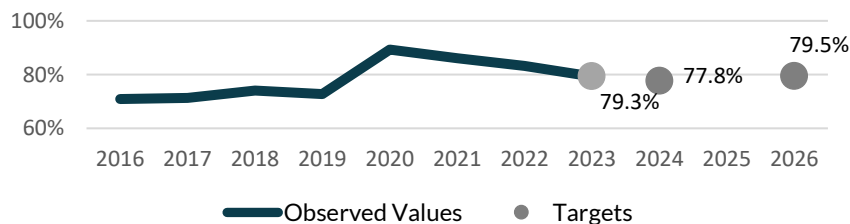Figure 2-X: Observed Data, Trends, and Targets for Non-Interstate Reliability

Table 2-X: Latest Observations and Targets for Interstate and Non-Interstate Reliability

	Latest Observed Value (2023)	2024 Target	2026 Target
Interstate Reliability	73.4%	80.9%	82.1%
Non-Interstate Reliability	79.3%	77.8%	79.5%

While a majority of person miles of travel on both the Interstate System and Non-Interstate NHS are reliable in the region, reliability can be increased by implementing programs and projects that reduce nonrecurring congestion and boost the overall reliability of the system. Improvements in these measures because of changes to traveler behavior in response to the COVID-19 pandemic reflect the strong influence that traveler behavior has on these measures as well. NCTCOG is actively using these performance measures to select programs and projects in Mobility 2050. See *Addressing System Performance, Freight, and CMAQ Measures in Mobility 2050* below for more information.

Truck Travel Time Reliability

Efficient and predictable freight movement in the region is key to the region's economic health. This measure quantifies the reliability of the region's Interstate system for freight movement. It is calculated as an index representing the amount of extra travel time drivers and logistics planners need to factor into trips in the region to consistently arrive on time. Higher values indicate worsening reliability and less predictable travel times. As with the preceding Interstate and Non-Interstate Reliability measures, Truck Travel Time Reliability is influenced by operational inefficiencies, bottlenecks, crashes, and weather, but operational issues for trucks near freight hubs and other freight-specific issues can contribute to this measure.

As seen in **Figure 2-X** and **Table 2-X**, this measure has been worsening in the Metropolitan Planning Area for the time period for which reliable data is available. Recent changes in travel behavior due to the COVID-19 pandemic caused a significant improvement during 2020 and 2021, but this measure has since returned, for the most part, to its pre-pandemic trend.

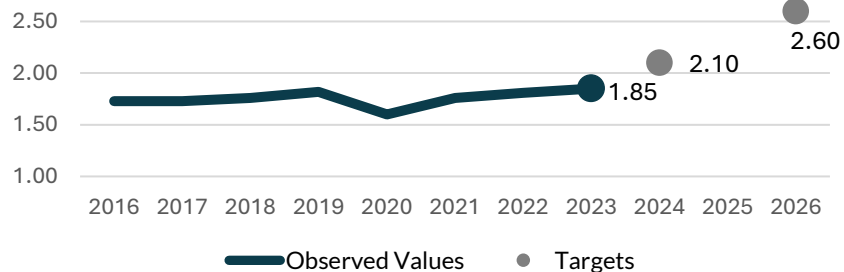Figure 2-X: Latest Observations and Targets for Truck Travel Time Reliability

Table 2-X: Latest Observations and Targets for Truck Travel Time Reliability

Measure	Latest Observed Value (2023)	2024 Target	2026 Target
Truck Travel Time Reliability	1.85	2.10	2.60

This measure will continue to be closely monitored. As one of the few required federal performance measures that show a worsening trend for the region, the Metropolitan Transportation Plan, Transportation Improvement Program, 10-Year Plan, and other planning processes will need to continue to develop, recommend, and program projects and programs that prioritize freight reliability. Freight considerations have been incorporated into Mobility 2050's project selection processes, and the plan's recommendations include many projects that will directly address freight movement on the region's transportation system. See *Addressing System Performance, Freight, and CMAQ Measures in Mobility 2050* below for more information.

Percent Non-Single-Occupant Vehicle Travel

Driving alone is an inefficient use of resources and the transportation system when compared to other modes. This measure quantifies the proportion of commute travel that uses modes other than driving alone in the Dallas-Fort Worth-Arlington, Denton-Lewisville, and McKinney-Frisco Urban Areas. This includes transit, carpooling, telecommuting, bicycling, walking, and other modes.

Before the COVID-19 pandemic, this measure was either steady or slightly improving, as seen **in Figures 2-X**, **2-X**, and **2-X**. However, the changes to traveler behavior due to the COVID-19 pandemic have significantly increased the share of non-single-occupancy vehicle commutes, and some non-single-occupancy vehicle modes like telecommuting are likely to remain higher for many years, due to both lasting impacts of the pandemic and multi-year aggregation of the Census Bureau's American Community Survey data used for this measure. The long-term impacts are still unknown at this time, which is why NCTCOG has chosen to reaffirm its existing 2026 target for now. This measure will be reevaluated in the next performance period. The latest observed value and adopted targets are listed in **Table 2-X**.

Figure 2-X: Latest Observed Data and Targets for Non-Single-Occupancy Vehicle Travel (Dallas-Fort Worth-Arlington)
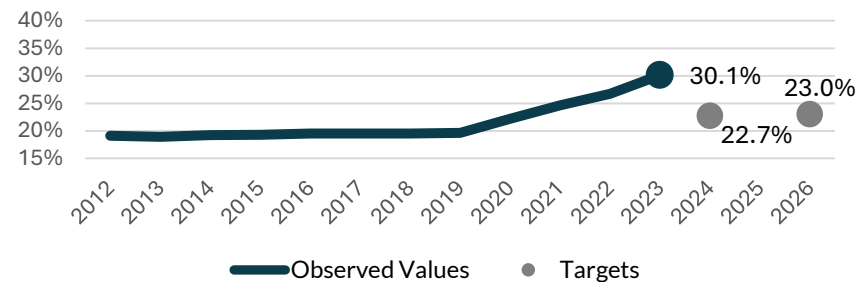
Figure 2-X: Latest Observed Data and Targets for Non-Single-Occupancy Vehicle Travel (Denton-Lewisville)
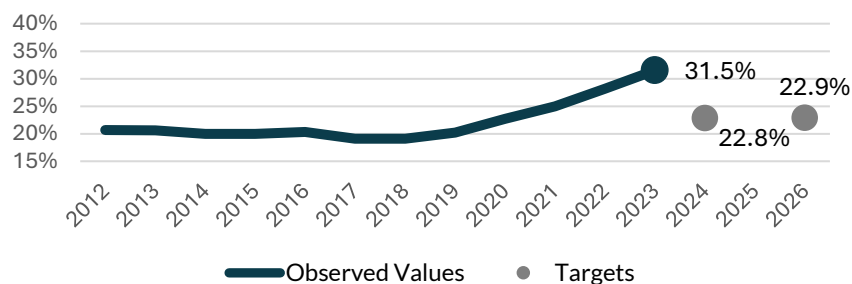

Figure 2-X: Latest Observed Data and Targets for Non-Single-Occupancy Vehicle Travel (McKinney-Frisco)
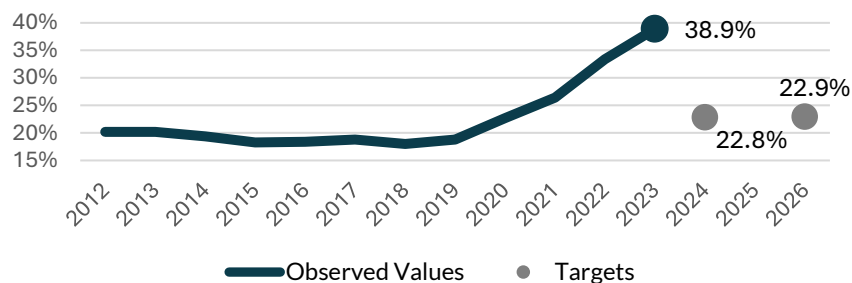

Table 2-X: Latest Observation and Targets for Non-Single-Occupancy Vehicle Travel

Urban Area	Latest Observed Value (2023)	2024 Target	2026 Target
Dallas-Fort Worth-Arlington	30.1%	22.7%	23.0%
Denton-Lewisville	31.5%	22.8%	22.9%
McKinney-Frisco	38.9%	22.8%	22.9%

The improvements seen for this measure during the COVID-19 pandemic can be retained and improved upon by implementing programs and projects that shift mode share to alternative modes. NCTCOG is actively using this performance measure to select programs and projects for Mobility 2050. See *Addressing System Performance, Freight, and CMAQ Measures in Mobility 2050* below for more information.

Peak Hour Excessive Delay

Excessive congestion delay impacts both roadway users and the region's air quality. This measure quantifies excessive delay by calculating the number of hours of delay above an established threshold the average resident of the region experiences in a year during peak travel times on NHS facilities in the Dallas-Fort Worth-Arlington Urbanized Area. This is an absolute measure of congestion that quantifies overall congestion rather than its variability. Variability in congestion, or "non-recurring congestion," is addressed by the reliability measures discussed above.

As seen in **Figures 2-X**, **2-X**, and **2-X**, this measure improved slightly from 2016 to 2019 and improved dramatically in 2020 and 2021 due to significant changes in traveler behavior due to the COVID-19 pandemic. It has since mostly returned to pre-pandemic levels for all urban areas. Currently adopted targets seen in Table 2-X were reaffirmed for this measure to allow more time to assess post-pandemic trends.

Figure 2-X: Observed Data, Trends, and Targets for Peak Hour Excessive Delay (Dallas-Fort Worth-Arlington)
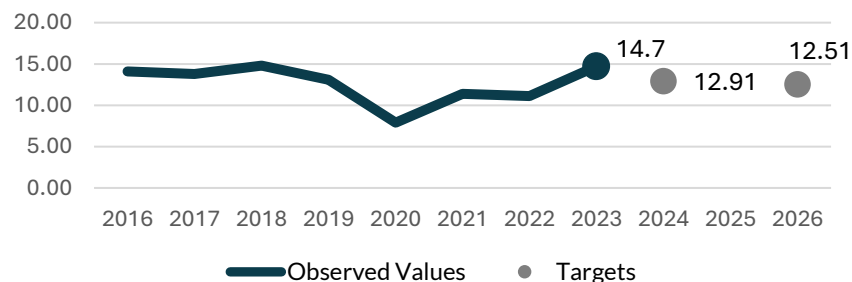
Figure 2-X: Observed Data, Trends, and Targets for Peak Hour Excessive Delay (Denton-Lewisville)
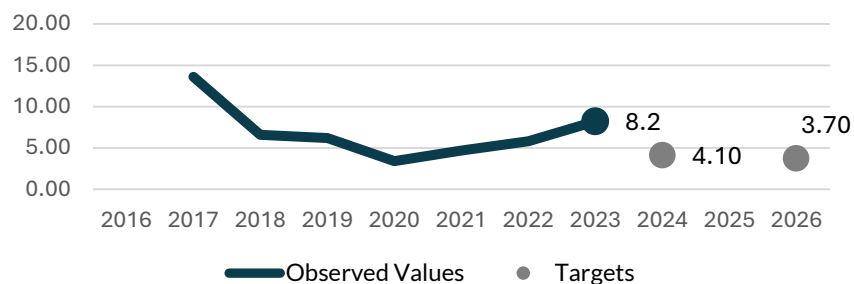

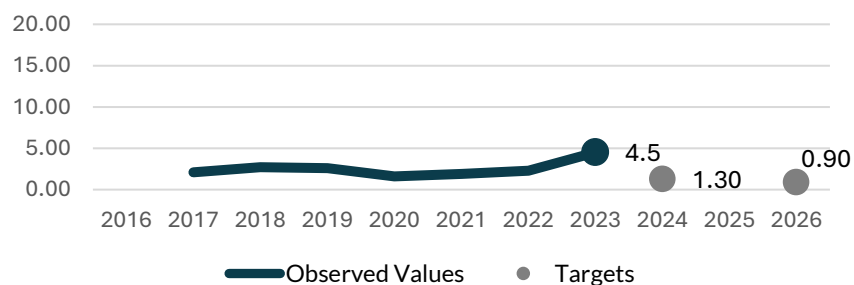Figure 2-X: Observed Data, Trends, and Targets for Peak Hour Excessive Delay (McKinney-Frisco)

Table 2-X: Latest Observations and Targets for Peak Hour Excessive Delay

Urban Area	Latest Observed Value (2023)	2024 Target	2026 Target
Dallas-Fort Worth-Arlington	14.70 hours	12.91 hours	12.51 hours
Denton-Lewisville	8.20 hours	4.10 hours	3.70 hours
McKinney-Frisco	4.50 hours	1.30 hours	0.90 hours

This measure can be improved by implementing programs and projects that reduce recurring congestion and retain the improvements seen during the pandemic. NCTCOG is actively using this performance measure to select programs and projects for Mobility 2050. See *Addressing System Performance, Freight, and CMAQ Measures in Mobility 2050* below for more information.

Total Emissions Reductions

The on-road mobile source emissions performance measure is the total emissions reduction (two- and four-year cumulative estimated emissions reductions) for all Congestion Mitigation and Air Quality Improvement Program (CMAQ), or air quality funded projects of each applicable criteria pollutant and precursor. For the Dallas-Fort Worth nonattainment area, the pollutants measured are nitrogen oxides (NO_X)and volatile organic compounds (VOC).

NCTCOG staff developed a new baseline and targets for the second performance measure reporting period by comparing existing local Transportation Improvement Program projects from 2021 to 2024 with projects included in the Federal Highway Administration's Public Access System for that same time period. Based on the results, the percentage of the emissions benefits reported in the Transportation Improvement Program for NO_X and VOC were applied to determine the new baseline and future targets.

NCTCOG coordinates with local stakeholders and TxDOT in the selection of CMAQ projects for deployment in the Dallas-Fort Worth ozone nonattainment area. These projects were selected to meet the program goals of reducing congestion and/or reducing emissions of ozone precursor pollutants. Emissions estimates for these projects are calculated by NCTCOG using methodologies developed as part of the Texas Guide to Accepted Mobile Source Emission Reduction Strategies (MOSERS). In cases where no practical MOSERS methodology exists, verified past emission reduction performance is used to create an emissions reduction estimate.

To establish targets for these measures, staff analyzed the behavior of emission factors over time and applied percentage reductions to the baseline to better correlate with potential future reductions. This measure remains unaffected by the pandemic, and the cumulative values, reported in the 2022 and 2023 CMAQ annual reports for NO_X, have met the 2026 target and VOC is on track. The latest values observed and adopted targets are shown in **Table 2-X.**

Table 2-X: Emissions Reductions Measures and Targets

Pollutant	Latest Observed Value (2022 and 2023 Combined)	2024 Target	2026 Target
Nitrogen Oxide (kg/day)	4,929.94	2,330.64	4,195.15
Volatile Organic Compound (kg/day)	865.80	599.90	1,035.83

Addressing PM3 (System Performance, Freight, and Congestion Mitigation and Air Quality Improvement Program) Measures in Mobility 2050

Mobility 2050 directly addresses many of the measures in the PM3 rulemaking and has selected policies, programs, and projects using similar criteria for many years. Many of the measures in this rulemaking have been incorporated as appropriate into the plan's project selection processes (see *Project Selection/Prioritization Processes* below), and all measures are considered when developing the plan's suite of recommendations. Upon implementation, these recommendations will directly address congestion, reliability, freight movement, and therefore lead to improvements in these measures and achievement of targets.

Some examples of specific programs and projects included in Mobility 2050 that are anticipated to address the PM3 measures are listed in **Table 2-X**.

Table 2-X: PM3 Performance Impacts of Selected Programs and Projects

Program/Project Name	PM3 Measures Addressed	Potential Impact
Signal Retiming Program	Interstate Reliability, Non-Interstate Reliability, Peak-Hour Excessive Delay, Total Emission Reductions	Retiming signals on the region's arterials lead to more efficient utilization of the system and higher Interstate and Non-Interstate Reliability with resulting air quality benefits as well.
SH 360 from IH 30 to SH 183 Asset Optimization Project	Interstate Reliability, Truck Travel Time Reliability, Peak-Hour Excessive Delay	Strategically adding capacity and operational improvements to this corridor are anticipated to improve Interstate Reliability and Truck Travel Time Reliability.
Southeast Connector Corridor Project on US 287/IH 820/IH 20 in Tarrant County	Interstate Reliability, Truck Travel Time Reliability, Peak-Hour Excessive Delay	Adding capacity to this key transportation corridor is anticipated to alleviate recurring congestion and improve the reliability of the system.
Regional Veloweb Trail in Grand Prairie, Cotton Belt Trail, South Clark Road Trail	Non-Single-Occupancy Vehicle Travel, Total Emission Reductions	Completing these portions of the Regional Veloweb enables more of the region's population to switch to nonmotorized commutes.

TRANSIT ASSET MANAGEMENT

Public transportation provides thousands of people in North Central Texas with daily access to essential life opportunities. It is critical to have well-maintained, reliable transit assets to help ensure safe, dependable, and accessible transit services. The North Central Texas region has a variety of transit assets. The three major transit authorities—Dallas Area Rapid Transit (DART), Trinity Metro, the Denton County Transportation Authority (DCTA)—and smaller transit providers have transit assets, including nearly 2,000 buses and vans, and over 250 commuter, light rail, and trolley vehicles covering almost 300 miles of track. Transit agency assets also include support vehicles like service trucks and police cars, infrastructure such as rail stations, park-and-ride locations, and maintenance facilities. Transit asset management (TAM) is a business model that prioritizes funding based on the condition of transit assets to achieve or maintain transit networks in a state of good repair. TAM supports a series of practices to achieve a transit state of good repair, including, but not limited to:

- Regular maintenance
- Inspections
- Tracking asset condition over time
- Planning for maintenance and replacement costs
- Replacing each asset at the appropriate time

The TAM final rule establishes four performance measures related to the condition of transit assets. MPOs are required to coordinate with transit providers to report on these measures, establish regional targets, and integrate individual transit providers' performance targets and TAM plans into planning documents. NCTCOG coordinated with all transit providers in the region, requesting transit asset data and agency-level metrics and targets. Based on the data received, the RTC established initial regional targets for the four transit asset categories

in December 2017. These targets have been reaffirmed regularly since that time, and updated targets were developed and adopted by the RTC in September 2022. These targets cover Fiscal Years 2023 to 2026.

In addition to adopting updated targets, NCTCOG has shifted its approach to the regional targets by setting distinct targets for the three large transit authorities (DART, Trinity Metro, and DCTA) and the rest of the region's transit providers. This new approach was adopted to ensure that differences in operating environments, asset procurement options, and other impacts from the COVID-19 pandemic are considered in the target-setting and performance measurement process, while still providing an aspirational goal to guide regional coordination and assistance in keeping critical transit assets and infrastructure in a state of good repair. **Tables 2-X** and **2-X** list the measures and targets adopted for the large agencies and small providers, respectively.

Table 2-X: Large Agency Transit Asset Management Targets for Fiscal Year 2023-2026

Asset Category	Target	Metric
Rolling Stock (transit vehicles)	0%	Vehicles that meet or exceed the industry standard, defined as the Federal Transit Administration's Default Useful Life Benchmark*
Infrastructure (rail track)	0%	Rail track segments with performance restrictions
Equipment (transit support vehicles)	25%	Vehicles that meet or exceed the industry standard, defined as the Federal Transit Administration's Default Useful Life Benchmark*
Facilities (buildings, stations, park-and-rides)	0%	Transit facilities rated below "Adequate" (3.0) on the industry standard Transit Economic Requirements Model scale

* These vehicles are as old as or older than the industry standard.

Table 2-X: Small Provider Transit Asset Management Targets for Fiscal Year 2023-2026

Asset Category	Target	Metric
Rolling Stock (transit vehicles)	5%	Vehicles that meet or exceed the industry standard, defined as the Federal Transit Administration's Default Useful Life Benchmark*
Infrastructure (rail track)	0%	Rail track segments with performance restrictions
Equipment (transit support vehicles)	25%	Vehicles that meet or exceed the industry standard, defined as the Federal Transit Administration's Default Useful Life Benchmark*
Facilities (buildings, stations, park-and-rides)	0%	Transit facilities rated below "Adequate" (3.0) on the industry standard Transit Economic Requirements Model scale

* These vehicles are as old as or older than the industry standard.

Rolling Stock: Percentage of Revenue Vehicles Met or Exceeded Useful Life Benchmark

This measure assesses the percentage of rolling stock revenue vehicles, such as buses and paratransit vehicles, a transit provider operates that have met or exceeded the Useful Life Benchmark (ULB). The ULB is the expected lifecycle of a capital asset for a particular transit provider's operating environment, based on recommended mileage or the acceptable period of use in service. NCTCOG has set the regional target for this measure with the goal that the percentage of revenue vehicles that have met or exceeded their ULB does not exceed the target percentage. **Table 2-X** summarizes the targets and comparative performance in Fiscal Years 2021 to 2023 for rolling stock revenue vehicles in the region.

Table 2-X: Rolling Stock Performance Compared to Targets

	Percent of revenue vehicles that have met or exceeded their useful life benchmark				
Asset Type[1]	FY2021	FY2022	FY2023	Large Agency Target	Small Provider Target
Bus	2%	4%	1%	0%	5%
Small Bus	24%	24%	16%	0%	5%
Light Rail Vehicle	0%	0%	0%	0%	5%
Commuter Rail Locomotive	0%	44%	0%	0%	5%
Commuter Rail Passenger Car	0%	0%	0%	0%	5%
Articulated Bus	0%	0%	0%	0%	5%
Commuter Rail Passenger Coach[2]	0%	48%	0%	0%	5%

[1] Rolling stock assets include a small number of vehicles reported to the National Transit Database as "inactive."
[2] Includes assets rebuilt near the end of their useful life with the assumption of a minimum useful life extension of 10 years, which may be too conservative (i.e., vehicles may be in better condition than expected based on completed rebuild activities).

NCTCOG is actively using this performance measure to select programs and projects for Mobility 2050. See *Addressing Transit Asset Management in Mobility 2050* below for more information.

Infrastructure: Percentage of Track Segments with Performance Restrictions

This measure assesses the performance of rail infrastructure operated by transit providers in the region by measuring the percentage of track segment with performance restrictions. A performance restriction exists on a segment of rail fixed guideway when the maximum permissible speed of transit vehicles is set to a value that is below the guideway's full-service speed. These restrictions are often referred to as "slow zones." NCTCOG has set the regional target for this measure with the goal that the percentage of track segments with performance restrictions does not exceed the target percentage. **Table 2-X** summarizes the targets and comparative performance in Fiscal Years 2021 to 2023 for rail infrastructure.

Table 2-X: Infrastructure Performance Compared to Targets

Rail Mode	FY2021 Performance	FY2022 Performance	FY2023 Performance	Large Agency/ Small Provider Target
Light Rail	0.20%	0%	0%	0%
Commuter Rail	12.55%	0%	0%	0%
Streetcar Rail	0%	0%	0%	0%
Hybrid Rail	0%	0%	0%	0%

Equipment: Percentage of Non-Revenue Vehicles Met or Exceeded Useful Life Benchmark

This measure assesses the percentage of non-revenue vehicles, including transit service and maintenance vehicles, which have met or exceeded their ULB. NCTCOG has set the regional target for this measure with the goal that the percentage of revenue vehicles that have met or exceeded their ULB does not exceed the target percentage. **Table 2-X** below summarizes the target and comparative performance in Fiscal Years 2021 to 2023 for non-revenue equipment.

Table 2-X: Equipment Performance Compared to Targets

Asset Type	FY2021 Performance	FY2022 Performance	FY2023 Performance	Large Agency/ Small Provider Target
Automobiles	57%	57%	76%	25%
Steel Wheel Vehicles	33%	33%	50%	25%
Trucks & Other Rubber Tire Vehicles	69%	69%	64%	25%

Facilities: Percentage of Facilities Assets with Condition Rating below 3.0 on Federal Transit Administration Transit Economic Requirements Model

This measure tracks the percentage of facility assets, such as maintenance, administrative, passenger, and parking facilities, with a condition rating below 3.0 on the Federal Transit Administration Transit Economic Requirements Model scale. NCTCOG set the regional target for this measure with the goal that the percentage of facilities with a condition rating below 3.0 on the Transit Economic Requirements Model scale does not exceed the target percentage., **Table 2-X** below summarizes the target and comparative performance in Fiscal Years 2021 to 2023 for this measure.

Table 2-X: Facilities Performance Compared to Targets

Asset Type	Fiscal Year 2021 Performance	Fiscal Year 2022 Performance	Fiscal Year 2023 Performance	Large Agency/ Small Provider Target
Administrative/ Maintenance	13%	13%	21%	0%
Passenger/Parking	2%	0%	1%	0%

Addressing Transit Asset Management in Mobility 2050

Mobility 2050 directly addresses many of the measures in the TAM rulemaking and projects are selected with TAM principles in mind. Given the goal of TAM to achieve and maintain transit fleets, non-revenue vehicles, rail infrastructure, and facilities in a state of good repair, NCTCOG has advanced several policies and programs that center on planning, procurement, and implementation of projects that would further the maintenance or replacement of transit assets. Beginning in Fiscal Year 2021, TAM has been addressed in the

Transportation Improvement Program through regular maintenance of transit assets and the purchasing of new vehicles in cooperation with the region's transit agencies and NCTCOG's subrecipients using the Federal Transit Administration 5307 (Urbanized Area Formula) and 5339 (Bus and Bus Facilities) funds.

Staff are undertaking a Cooperative Vehicle Procurement (CVP) on behalf of small transit providers, nonprofits, and health and human service agencies. Through this CVP, NCTCOG will ensure compliance with federal procurement requirements, deliver savings and efficiencies to regional partners, and continue efforts to implement regional transit vehicle standards. The CVP will help meet the regional targets for the rolling stock performance measure.

A summary of specific programs and projects included in the Transportation Improvement Program that will help address the TAM measures are listed in **Table 2-X**. The current transit listings will be updated each cycle as the Federal Transit Administration releases additional funds for each fiscal year.

Table 2-X: Summary of Transportation Improvement Program Projects that Address TAM Performance Measures

Project Description	Performance Measures
Purchase Replacement Vehicles	Rolling Stock, Equipment
Bus Preventive Maintenance	Rolling Stock
Preventive Maintenance	All
System Preventive Maintenance	All
Rail Preventive Maintenance	Infrastructure
Purchase Replacement Vehicles – Trinity Railway Express Service	Equipment
Acquisition of Security Equipment	Equipment

PUBLIC TRANSPORTATION AGENCY SAFETY PLANS

Public Transit Agency Safety Plans are a means for transit providers and MPOs to monitor and improve the agency of transit systems under their jurisdiction. A core component of the process is monitoring and establishing targets for four required performance measures:

- Fatalities (total number of reportable fatalities and rate per total vehicle revenue miles by mode)
- Injuries (total number of reportable injuries and rate per total vehicle revenue miles by mode)
- Safety Events (total number of reportable events and rate per total vehicle revenue miles by mode)
- System Reliability (mean distance between major mechanical failures by mode)

Transit provider targets are established annually. Regional targets will be updated every four years. Regional transit providers establish and publish their safety targets for each of the required performance measures in their agency safety plans. NCTCOG assesses each of these agency safety plans and coordinates with the transit providers, TxDOT, and the Federal Transit Administration Public Transit Agency Safety Plans Technical Assistance Center to determine the method and overall goal for the regional safety targets. **Table 2-X** below summarizes NCTCOG's regional safety targets for each of the seven performance measures and provides the most recent regional performance data. While individual providers create targets for each mode they operate, the regional safety performance data is aggregated for the regional baseline average performance and safety targets to ensure consistency and applicability across the region. The overall goal of the targets is to achieve a 5 percent improvement over the regional baseline average performance by Fiscal Year 2025. However, fatality

targets are set to zero, in line with the regional safety position that, "Even one death in the transportation system is unacceptable." These targets were approved by the RTC in 2021 and will be updated again by the end of Fiscal Year 2025. The update will include additional performance measures that the Federal Transit Administration added to the regulations in April 2024.

Table 2-X: Public Transit Agency Safety Plans Baseline Average Performance and Regional Safety Targets

Performance Measure	Baseline Average	FY2023 Performance	Regional Safety Target
Fatalities – Total Number	6.00	5.00	0.00
Fatalities – Rate per 100k Miles	0.01	0.007	0.00
Injuries – Total Number	150.50	396	142.98
Injuries – Rate per 100k Miles	0.23	0.52	0.22
Safety Events – Total Number	516.00	303	490.20
Safety Events – Rate per 100k Miles	0.81	0.40	0.77
System Reliability – Average Miles Between Major Mechanical Failures	18,896	26,544	19,841

Addressing Public Transportation Agency Safety Plans in Mobility 2050

The safety of the transit system is of important regional value and many policies, programs, and projects that are included in Mobility 2050 directly or indirectly address the safety of the transit systems. An example project is the construction of safety walls along the Silver Line/Cotton Belt rail corridor near schools in Dallas and Plano. Double

projects, such as ongoing efforts on the Trinity Railway Express corridor, represent added capacity to the rail system, but they also provide important safety functions. The rail will be reconstructed, allowing for higher speeds, on a previously speed-restricted corridor. In addition, by allowing the trains to pass one another on separate tracks, potential conflicts are reduced, thereby increasing safety across the system. Many more safety-related projects will be implemented through programs like the Transit Enhancements and Mobility Improvements Program.

CONCLUSION

Tracking the performance of the region's transportation system relative to the goals of previous and current federal legislation is a required component of the plan development process. However, data and insights gleaned from the federal performance measures can be applied in useful ways as there is overlap between Mobility 2050 goals and federal emphasis areas. During the period Mobility 2050 is in effect, these measures will continue to be tracked and updated as new data is available, generally on an annual basis.