Metro Strategic Transformation Plan / Service Excellence Report

Performance Measure Definitions

Last updated June 2026

Ridership

= Number of entries on Metrorail or number of boardings on Metrobus / MetroAccess

Ridership data is key to understanding changing patterns of customer behavior and planning for service that best meets current customer needs.

Beginning in January 2023, Metrorail entries are based on faregate SmarTrip transactions, Tap. Ride. Go. Transactions, and other entries as recorded by faregate sensors. Prior to January 2023, Metrorail entries were based only on faregate SmarTrip transactions. Note that Metrorail entries are faregate interactions, not unlinked trips. On Metrobus, boardings are recorded by automated passenger counters at the doors of the buses. On MetroAccess, boardings are counted by the number of customers picked up in MetroAccess vehicles. MetroAccess boardings do not include trips taken on Abilities-Ride, a service that allows MetroAccess to move some of their trips to local taxicab, sedan, van, and national transportation network companies. Ridership for all modes reflects individual trips taken, not unique customers.

Metro has a ridership data portal to give customers, journalists, jurisdictional staff, researchers, the business community, and other stakeholders access to data about Metro's ridership patterns. The portal includes interactive dashboards with detailed information on Metrorail, Metrobus, and parking ridership. The ridership data portal can be accessed at: https://www.wmata.com/initiatives/ridership-portal/. All data is downloadable for independent analysis.

Goal 1: Service Excellence

Customer Satisfaction

= Number of survey respondents (active riders) who marked their last trip on Metrorail / Metrobus / MetroAccess as "very satisfactory" OR the second highest category in a five-point scale ÷ Total number of respondents to that question

Surveying customers about the quality of Metro's service delivery provides a mechanism to continually identify areas of the operation where actions to improve the service can maximize rider satisfaction.

Customer satisfaction is defined as the percent of customer survey respondents who rated their *last trip within a 30-day period* on Metrobus, Metrorail, or MetroAccess as a "5" or "4" in the survey, with "5" denoting "very satisfied" and "1" denoting "very unsatisfied". Metro distributes this survey through address-based sampling on a biweekly basis, and respondents must meet specific criteria to participate. Metro summarizes results quarterly.

Objective 1A: Safety and Security

Part 1 Crime Rate

= Number of Part 1 Crimes ÷ (Total number of riders ÷ 1,000,000)

(In other words, the number of crimes per million passenger trips)

The FBI's Uniform Crime Reporting program classifies the following as Part 1 Crimes: Criminal Homicide, Forcible Rape, Robbery, Aggravated Assault, Burglary, Larceny, Motor Vehicle Theft, and Arson. To calculate Metro's Part 1 Crime Rate, MTPD looks at these crimes committed in the following areas: 1) on buses and at bus stops, 2) on trains and in rail stations, 3) at Metro-owned parking lots, 4) at other Metro Facilities such as rail yards, bus divisions, headquarters, and MetroAccess vehicles, and 5) in non-WMATA locations but involving WMATA or MTPD property.

This measure provides an indicator of security customers experience when traveling the Metro system.

Transit Worker Assault Rate

= Number of transit worker assaults reported to the National Transit Database ÷ (Total vehicle revenue miles ÷ 10 million)

(In other words, the number of reportable assaults per ten million miles driven while vehicles are in revenue service)

The Federal Transit Administration criteria for reporting assaults changed significantly in FY25. The new criteria for reporting assaults includes employees, contractors, and volunteers working on behalf of the agency. Assaults can be physical or non-physical (e.g. verbal) and do not have to result in an injury. These are different criteria than those used by OSHA in the employee injury rate.

Safety and security is the highest priority for Metro. The assault rate is one indicator of how well Metro is meeting this security objective.

Customer Perception/Satisfaction: Safety from Crime

= Number of survey respondents (active riders) who responded to whether they felt safe from crime and harassment on their last Metrorail/Metrobus/MetroAccess trip as a "1" or a "2" in a five-point scale where 1 = "not at all safe" and 5 = "very safe" ÷ Total number of respondents to that question

(In other words, the percent of survey respondents who felt **unsafe** from crime on a Metro vehicle)

Customer satisfaction with safety from crime or harassment is defined as the percent of customer survey respondents who responded whether they felt unsafe from crime or harassment on their *last trip within a 30-day period* on Metrobus, Metrorail, or MetroAccess as a "1" or "2" in the customer satisfaction survey using a five-point scale where a 5 means "Very satisfied" and a 1 means "Very dissatisfied". Metro distributes this survey through address-based sampling on a biweekly basis, and respondents must meet specific criteria to participate. Results are summarized quarterly.

This measure provides insight into how customers perceive their safety from crime within the Metro system.

Customer Injury Rate

= Number of customer injuries reported to the National Transit Database ÷ (Total vehicle revenue miles ÷ 10 million)

(In other words, the number of customer injuries per ten million miles driven while vehicles are in revenue service)

Customer injury rate is based on National Transit Database (NTD) reporting criteria. It includes customers injured during Metro operations where the injury requires immediate medical attention away from the scene.

Customer safety is the highest priority for Metro and a key measure of quality service. Customers expect a safe and reliable ride each day. Customer injury rate is an indicator of how well service is meeting this safety objective.

Employee Injury Rate

= Number of employee injuries reported to the Department of Labor ÷ (Total work hours ÷ 200,000)

200,000 hours is equivalent to 100 employees working full-time for one year. In other words: the number of employees injured per 100 employees.

An employee injury is recorded based on OSHA 1904 Recordkeeping Criteria, when the injury is (a) work-related and (b) one or more of the following happens to the employee: 1) fatality, 2) injury or illness that results in loss of consciousness, days away from work, restricted work, or job transfer 3) medical treatment received above first aid, 4) diagnosed case of cancer, chronic irreversible diseases, fractured or cracked bones or teeth, and punctured eardrums, 5) special cases involving needlesticks and sharps injuries, medical removal, hearing loss, and tuberculosis.

Per the Occupational Safety and Health Act, employers are obligated to provide a workplace free of recognized hazards which may cause employee death or serious injury. OSHA-recordable injuries are a key indicator of how safe employees are in the workplace.

Metro Rail Crowding

= Number of crowded passenger minutes ÷ Total number of passenger minutes

Crowding is a key driver of customer satisfaction with Metrorail service. This measure calculates the percentage of passenger time spent on vehicles that exceed crowding guidelines per WMATA service standards of 100 passengers per train car during the weekday rush and 65 passengers per car during all other times.

Crowding informs decision making regarding asset investments, service plans and scheduling. Factors that can affect crowding include: service reliability, missed trips, insufficient schedule, or unusual demand.

Metro Bus Crowding

= Number of crowded passenger minutes ÷ Total number of passenger minutes

Crowding is a key driver of customer satisfaction with Metrobus service. The measure calculates the percentage of passenger time spent on vehicles that exceed crowding guidelines per WMATA service standards of 120% of seated capacity during peak for Activity Tier 1 Bus Rapid Transit, framework, and coverage routes (see pages 5-6 of the Metrobus Service Guidelines for explanations of these route types), 100% off-peak, and at all times on all other routes.

Crowding informs decision making regarding asset investments, service plans and scheduling. Factors that can affect crowding include: service reliability, missed trips insufficient schedule, or unusual demand.

Collision Rate

= Number of Metro Bus and Metro Access collisions reported to the National Transit Database ÷ (Total vehicle revenue miles ÷ 10 million)

(In other words, the number of reportable collisions per ten million miles driven while vehicles are in revenue service)

This collision rate is based on National Transit Database criteria, which includes if any person was transported from the scene for medical attention, at least $25,000 in damage to a vehicle, an evacuation, a vehicle being towed, or a fatality. Essentially, this measure attempts to capture only serious collisions, and would not include collisions like a mirror-to-mirror collision or a bus hitting a tree branch.

Safety is Metro's highest priority and Metro has continuous campaigns to reduce collisions as they cause injuries as well as disruptions to service.

Fare Evasion

= Number of untapped trips / total trips

Fare evasion measures how many customers are tapping their cards when boarding the train or bus. The measure calculates the percent of customers who tap their cards, and can be calculated from the data tables by calculating the percent of tapped trips (tapped trips divided by total trips) and subtracting it from 100%. Note that for bus, shuttles are not included in the calculation because customers do not have to pay for shuttles.

Calculating fare evasion informs decision making about fare enforcement campaigns and budget planning. Factors that can affect fare evasion include: regional economic trends, whether faregate technology is functioning well, eligible customers enrolling in reduced fare programs, other regional providers having different fare policies, changes to Metro's fare policy, and fare enforcement campaigns.

Objective 1B: Reliability

Metro Rail On-Time Performance

= Number of journeys completed on time ÷ Total number of journeys

Rail Customer On-Time Performance (OTP) communicates the reliability of rail service, a key driver of customer satisfaction and ridership. OTP measures the percentage of customers who complete their journey within the maximum amount of time it should take per WMATA service standards. The maximum time is equal to the train run-time + a headway (scheduled train frequency) + several minutes to walk between the fare gates and platform + time it takes to transfer lines at a transfer station. These standards vary by line, time of day, and day of the week. Actual journey time is calculated from the time a customer taps a SmarTrip® or credit card to enter the system to the time when the customer taps to exit.

Factors that can affect OTP include: railcar availability, fare gate availability, elevator and escalator availability, infrastructure conditions, speed restrictions, single-tracking around scheduled track work, railcar delays (e.g., doors), or delays caused by sick passengers or crime investigations.

Metro Bus On-Time Performance

= Number of timepoints delivered on-time based on a window of 2 minutes early and 7 minutes late ÷ Total number of timepoints delivered

"Timepoints": major stops on a bus route that are used to create bus schedules.

Bus on-time performance (OTP) communicates the reliability of bus service, a key driver of customer satisfaction and ridership. Factors that can affect OTP include: traffic congestion, detours, inclement weather, scheduling, vehicle reliability, operational behavior, or delays caused by the public (crime, protests, medical emergencies, etc.).

Note that this measure only includes service delivered; it does not include bus trips that were missed.

Metro Access On-Time Performance

= Number of vehicle arrivals at the pick-up location within the 30-minute on-time widow ÷ Total stops

This measure illustrates how closely MetroAccess adheres to customer pick-up windows on a system-wide basis. MetroAccess customers schedule trips at least one day in advance and are given a 30-minute pick-up window. MetroAccess on-time pick-up performance is essential to delivering quality service to the customer.

Metro Rail Percent of Planned Service Delivered

= Number of train stops delivered ÷ Number of budgeted stops

This measure communicates whether Metro is meeting the level of service committed to customers through the budget and scheduling process. Similar to scheduled service delivered, it is also a key measure of reliability and customer satisfaction; when trips are missed, customers experience much longer wait times than expected and overall confidence in the system falls. Monitoring whether service was delivered helps Metro identify issues with staffing, planning and scheduling, railcar availability and reliability, and service interruptions.

Metro Bus Percent of Planned Service Delivered

= Number of scheduled trips delivered ÷ Number of scheduled trips

This measure communicates whether Metro is meeting the level of service committed to customers through the budget and scheduling process. It is also a key measure of reliability and customer satisfaction; when trips are missed, customers experience much longer wait times than expected and overall confidence in the system falls. Monitoring whether service was delivered helps Metro identify issues with staffing, planning and scheduling, bus availability and reliability, and service interruptions.

Metro Access Service Delivered

= Number of completed trips ÷ (number of missed trips + number of completed trips)

Complete Trips are trips that the customer took. Missed Trips are trips that a customer does not take if a vehicle arrives past its designated pick-up window, *or* trips where the driver does not dwell the minimum required time. Trips that were cancelled by the customer are excluded from this calculation.

Elevator/Escalator Availability

= Hours in service ÷ Revenue operating hours

Hours in service = Operating hours – Hours out of service
Revenue operating hours = Operating hours per unit * number of units

(In other words, the percentage of time that Metrorail escalators or elevators in stations and parking garages are in service during operating hours)

Escalator/elevator availability is a key component of customer satisfaction with Metrorail service. This measure communicates system-wide escalator and elevator performance (at all stations over the course of the day) and will vary from an individual customer's experience.

Customers access Metrorail stations via escalators to the train platform, while elevators provide an accessible path of travel for persons with disabilities, seniors, customers with strollers, and travelers carrying luggage. An out-of-service escalator requires walking up or down a stopped escalator, which can add to travel time and may make stations inaccessible to some customers. When an elevator is out of service, Metro is required to provide alternative services which may include shuttle bus service to another station.

Mean Distance Between Failure

= Number of miles driven / number of mechanical breakdowns

(In other words, the average number of miles driven between mechanical breakdowns on transit vehicles)

Mean distance between failure is a key metric of how well Metro's transit vehicle fleets are maintained and providing reliable service without disruption. This measure is used to identify poor-performing subsystems to target for engineering modifications or changes in maintenance practices. It is also used to monitor the effectiveness of maintenance and engineering interventions.

Metro follows the National Transit Database (NTD) definition of a mechanical breakdown: a failure of a mechanical element on the revenue vehicle that prevents the vehicle from completing a scheduled revenue trip or from starting the next scheduled revenue trip because actual movement is limited or because of safety concerns.

Objective 1C: Convenience

Metro Rail and Metro Bus Accuracy of Real-Time Arrival Information

= Number of accurate predictions ÷ Number of predictions

Rail and Bus Prediction Accuracy measure the quality of Metro's real time arrival prediction data that customers use to plan their trips through Metro's online platform and other third-party trip planning applications. The predictions are compared to the actual time the vehicle (either train or bus) arrived at the stop according to Metro internal records. Both Bus and Rail Prediction Accuracy use the same principles, methods, and standards.

Which predictions are evaluated? To make the measure as customer focused as possible, this measure only evaluates the most meaningful predictions; vehicles begin making predictions well before they begin service on a particular trip and can make predictions for stops well before they are scheduled to arrive. Customers typically only use prediction information to plan in the very near term and are mostly only looking for the next arrival. To account for this, this measure excludes predictions made well in advance and evaluates only predictions made within 30 minutes of the vehicle's arrival.

What is considered accurate? Prediction Accuracy compares the predicted time of a vehicle's arrival to the actual time of its arrival. A perfect prediction is when the predicted arrival time and the actual arrival time match exactly—but it is rare for a predicted and actual arrival to match to the second. The goal is not to be perfect, but to provide customers with enough good information so they can effectively plan their trips and are not waiting long periods of time. Therefore, the measure creates a range of allowable error within which a prediction is considered accurate. If the prediction falls outside that range, it is considered inaccurate.

The accuracy range follows two key principles:

1. *Predictions should become increasingly more accurate as a vehicle gets closer to its stop*. Errors have greater impacts on customer as a vehicle gets closer to its stop. Customers are more likely to use these predictions, and a two-minute difference has a greater impact if the vehicle is five minutes away than when the vehicle is 25 minutes away

2. *A vehicle arriving before its predicted arrival (Early) is worse than a vehicle arriving after its predicted arrival (Late)*. If customers follow predictions exactly, they will miss their trip if the vehicle was earlier than its prediction.

Using these principles, this measure uses the following time ranges to determine whether a prediction is accurate. Prediction Accuracy is essentially the number of predictions that fall within these ranges out of all predictions made within 30 minutes of a vehicle's arrival.

Time before arrival	Lower Bound (Early)	Upper Bound (Late)
0-3 mins	-1 min	1 min
3-6 mins	-1.5 mins	2 mins
6-12 mins	-2.5 mins	3.5 mins
12-30 mins	-4 mins	6 mins

Customer Perception/Satisfaction: Cleanliness of Train / Bus

= Number of survey respondents (active riders) who rated their satisfaction with cleanliness of trains / buses as "very satisfactory" OR the second highest category in a five-point scale ÷ Total number of respondents to that question

Customer satisfaction with cleanliness of trains / buses is defined as the percent of customer survey respondents who responded whether they were satisfied with the cleanliness of the train or bus on their *last trip within a 30-day period* on Metrorail or Metrobus as a "5" or "4" in the customer satisfaction survey, with "5" denoting "very satisfied" and "1" denoting "very unsatisfied". Metro distributes this survey through address-based sampling on a biweekly basis, and respondents must meet specific criteria to participate. Results are summarized quarterly.

This measure provides insight into how customers perceive the cleanliness of the Metro service vehicles.

Fatalities

= Count of fatalities on Metro property

Metro reports fatalities in accordance with the criteria outlined by the National Transit Database: the measure includes all fatalities in the Metro system except those due to customer individual illness. This includes suicides, homicides, and fatalities of people in vehicles that collide with Metro vehicles, as well as any fatality that occurs due to Metro operations.

Metro's aim is always for there to be no fatalities.

Safety Event Rate

= Number of safety events reported to the National Transit Database ÷ (Total vehicle revenue miles ÷ 10 million)

(In other words, the number of safety events per ten million miles driven while vehicles are in revenue service)

Metro reports safety events in accordance with National Transit Database criteria. This includes collisions, smoke/fire incidents, evacuations, derailments, hazardous material spills, and other serious incidents. To be included in the measure, the incident must be on Metro property and meet National Transit Database criteria, including an injury or fatality, major damage to a transit vehicle or property, an evacuation, a vehicle being towed, and a few other criteria.

By looking at trends in the total NTD-reportable safety events, Metro can monitor its comprehensive safety performance over time and identify mitigations for safety hazards.