Board Action/Information Summary

○ Action ◉ Information	MEAD Number: 203428	Resolution: ○ Yes ◉ No

TITLE:

FY2023/Q2 Metro Performance Report

PRESENTATION SUMMARY:

Highlights from the Second Quarter (Q2) Fiscal Year (FY) 2023 Metro Performance Report.

PURPOSE:

Inform the Board of Metro's FY2023 performance from July 2022 – December 2022 on safety and service reliability key performance indicators (KPIs).

DESCRIPTION:

There are no Interested Parties in this matter.

Key Highlights:

- Ridership is increasing above forecasted levels -- through the first six months of FY2023, customers made 91 million trips using Metrorail, Metrobus and MetroAccess, 13 percent above the budget forecast of 80.8 million

- Customer satisfaction has improved significantly -- Metrorail customer satisfaction increased from 69% to 79% during the first six months of FY2023, a 35 percent increase in train capacity. Bus customer satisfaction has increased from 69 percent to 75 percent during the period

- Most key performance indicators (KPIs) are on track -- 25 of the 29 KPIs met target or have performance trending in the desired direction

Background and History:

The Q2 FY2023 Metro Performance Report describes Metro's performance on a suite of key performance indicators (KPIs) that focus on service quality, security and safety. It provides results for customer satisfaction and ridership,

broken out by mode; Metrobus and Metrorail missed service; Metrobus, Metrorail and MetroAccess on-time performance; Metrobus real-time prediction availability and accuracy; Metrobus and Metrorail crowding; and elevator and escalator availability. The report includes five safety and security measures that align with the safety performance measures established in the Federal Transit Administration's National Public Transportation Safety Plan: crime rate, customer injury rate, major safety event rate, customer and employee assault rate, and employee injury rate. Results for all safety measures are broken out by mode in the report. This report continues efforts since 2010 to transparently report the performance for key operational measures.

The report compares performance for the period of July 2022 – December 2022 to the targets that Metro set for the fiscal year, which were developed following guidance from the Federal Transit Administration. The targets for the crime rate and customer and employee assault rate aim to improve over performance levels achieved in the last 12-24 months, acknowledging the changing nature and incidence of crime since the pandemic. The targets for on-time performance, fleet reliability, elevator and escalator availability, and rail missed trips aim to improve over the average performance over the last three to five years, a period bridging the pandemic. The targets for customer satisfaction, customer injuries, employee injuries, and major safety events aim to meet or improve over the average rates over the last five years. No target was set for bus missed trips, bus prediction availability, and bus prediction accuracy since this is the first year Metro is reporting this information.

Within Metro, this data is used on an ongoing basis to inform decision-making. Safety and Readiness staff utilize multiple datasets to monitor safety activities that impact employees and the riding public. Within Operations, these measures are actively tracked by staff through a series of "Stat" performance review meetings that encourage data-driven analysis and decision-making. These activities all contribute to Metro's performance-based planning and programming approach. Metro is currently updating its Strategic Plan, and the KPI framework will be adjusted in FY2024 to align with the new mission, vision, goals and objectives.

Discussion:

Metrorail customer satisfaction reached 79 percent in Q2 FY2023, a 10-percentage point increase in satisfaction in just six months and meeting the target of 79 percent, which was the average satisfaction over the past five years. This large increase reflects improvements in service frequency and service reliability: Metro increased train capacity by 35 percent over this time period. Customers also noticed less crowding at stations, improved safety when operating trains, and accurate arrival times. Metrobus customer satisfaction remained strong at 75 percent, just below the target and five-year

average performance level of 76 percent. Bus customer satisfaction has also seen big improvements over the past twelve months, rising from a low of 64 percent in Q3 FY2022. Improvements in satisfaction reflect shorter wait times, better reliability, and more accurate arrival times. For both Metrorail and Metrobus, customers have voiced concerns about safety from crime and harassment.

Through the first six months of FY2023, customers made 91 million trips using Metrorail, Metrobus, and MetroAccess, 13 percent above the budget forecast of 80.8 million and a 33 percent increase from the same period in FY2022. About 55 percent of trips occurred on Metrobus, and 45 percent occurred on Metrorail. Tuesdays, Wednesdays, and Thursdays are the busiest across both modes, and about 25 percent of Metrorail ridership occurs at the peak commuting times of 8am and 5pm – similar percentages to pre-pandemic.

Over the first six months of FY2023, Metrorail customers received 96.5 percent of scheduled service, better than the target of 94 percent, with an average of 90 percent of trips completed on-time (within expected wait and train running times), which was below the target of 92 percent. The number of 7000-series trains in service quadrupled during this period, enabling train capacity to increase by 35 percent and wait times to be reduced. Railcar reliability for the legacy fleet continued to meet target during this period. The 7000-series fleet reliability steadily increased over this period, and with railcars in this fleet traveling twice as many miles as the older railcars before experiencing a failure. System-wide, crowding peaked in September but fell between October and December, reflecting seasonal trends as many customers took advantage of long weekends and holidays. Crowding is concentrated on the Orange and Red Lines during rush periods. Elevator availability met target, with 98 percent of the 309 units available on average. Escalator availability also met target, with 93 percent of units available on average (compared to the target of 92.9 percent). During the first two quarters, an average of 45 of the 643 escalators in the system were out of service at any time, about 25 for major rehabilitations or replacements.

Metrobus customers received 98.4 percent of scheduled service, with real-time information provided for over 93 percent of trips. Operator availability was the main reason for missed trips, and Metro is aggressively recruiting bus operators, graduating 100 between October and December. Staff implemented upgrades that removed "ghost buses" from the busETA application, only showing data for trips that are known to be running. When predictions are provided, over 86 percent are accurate. Accuracy improves the closer buses get to the stop. Of the service delivered, 76.5 percent of buses were on-time, just shy of the target of 78 percent but showing improvements through Q2. Buses were more likely to be late than early. Now that traffic has returned to pre-pandemic levels, Metro is working to lengthen bus route running times to match current traffic levels and improve schedule

accuracy.

About 92.4 percent of MetroAccess trips were picked-up within the 30-minute arrival window, meeting the target of 92 percent or higher. Fleet reliability remains strong, with vehicles traveling over 24,000 miles between failures resulting in service interruptions. In Q2, MetroAccess added 50 hybrid sedans to its fleet.

There were just over six Part 1 crimes per million customers in the first half FY2023, better than target. Property crimes – specifically theft on Metrorail – is the most common type of crime. Crimes against persons continue to decrease. Metro Transit Police are working to keep crime low using cameras, compassionate outreach, more patrols, and community partnerships. MTPD onboarded four clinicians to assist customers in crisis or provide other services and referrals as needed, and began a NARCAN program to issue individual doses to treat people experiencing an opioid overdose.

Out of the 91 million trips made by customers this fiscal-year-to-date, 161 – less than a fraction of a percent--resulted in injuries that required medical attention. Sixty-three percent of injuries are due to slips, trips, and falls and 32 percent are related to collisions. Most of the injuries were on Metrobus and were related to hard braking by operators in attempts to avoid collisions. Bus operators receive frequent training and coaching to improve safe driving practices. Both the Metrobus and Metrorail customer injury rates were better than target, while the rate for MetroAccess customer injuries did not meet target. Collisions accounted for 94 percent of Metrobus and MetroAccess major safety events in Q1-Q2 FY2023. The rate of safety events on Metrobus and Metrorail met target, while the rate for MetroAccess did not meet target.

About 340 Metrobus and Metrorail employees were injured during the first six months of FY2023, with collisions, stress, and slips/trips/falls as the three most common types of injuries. Stress cases frequently involve staff witnessing adjacent violence or suicide, in addition to experiencing verbal attacks by customers. The Metrobus employee injury rate met target while the Metrorail employee injury rate did not. Both targets were set to improve over average performance over the past five years.

Performance results are mixed for customer and employee assaults. On Metrorail, the rate of assaults met the target and has been decreasing over the course of the fiscal year. On Metrobus, the assault rate did not meet target and has been increasing over the course of the fiscal year. In both cases, about 80 percent of assaults are between customers.

FUNDING IMPACT:

There is no funding impact from presenting this information to the Board.

TIMELINE:

Previous Actions	October 2022 – Presentation of Q1-Q4 FY2022 Metro Performance Report December 2022 – Presentation of Q1 FY2023 Metro Performance Report
Anticipated actions after	May 2023 – Presentation of Q3 FY2023 Metro Performance Report

FY23 Q2 Metro Performance Report

REPORT SUMMARY

Safety & Operations Committee
February 9, 2023

Summary

Customer satisfaction is improving, reflecting actions taken to improve reliability

- Most measures met target or are trending in the desired direction

- System-wide ridership is above forecast, and rush hour is returning

- Focusing on addressing customer and employee safety through cops, cameras and compassion

See the full FY23 Q2 Metro Performance Report under the "Performance" section of our Public Records page at wmata.com. Please also refer to the new performance measure data tables for additional detail, now included as a downloadable spreadsheet file at the same website location.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

Metro **Performance Results** | FY23 Q1-Q2

target met | **target at risk** | **target missed** | target under development for FY24

FOCUS FOR TODAY'S DISCUSSION:

		FY23 target met?	Trending in the right direction?
Ridership page 5-7		●	✔
Customer Satisfaction page 4	Rail	●	✔
	Bus	●	✔
	Access	●	
On-time Performance page 8-10	Rail	●	
	Bus	●	✔
	Access	●	
Bus Missed Service page 11		●	✔
Part 1 Crime		●	
Bus Assaults		●	
Rail Employee Injuries page 12		●	

APPENDIX WITH ADDITIONAL MEASURES

Measure	FY23 target met?	Trending in the right direction?
Rail Missed Service	●	
Bus Prediction Accuracy	●	
Bus Prediction Availability	●	
Rail Crowding	●	
Bus Crowding	●	
Elevator Availability	●	
Escalator Availability	●	
Rail Assaults	●	✔
Bus Employee Injuries	●	
Rail Safety Event Rate	●	
Bus Safety Event Rate	●	
Access Safety Event Rate	●	
Rail Customer Injury Rate	●	
Bus Customer Injury Rate	●	
Access Customer Injury Rate	●	
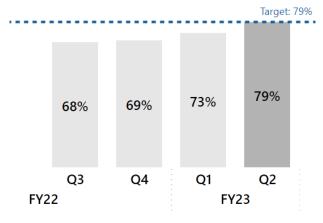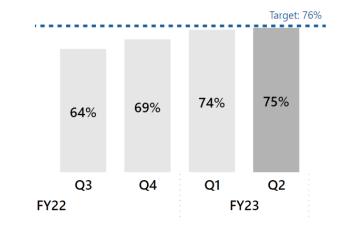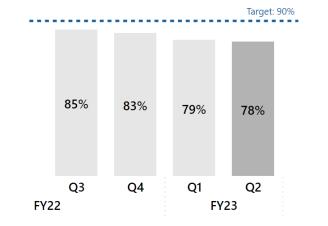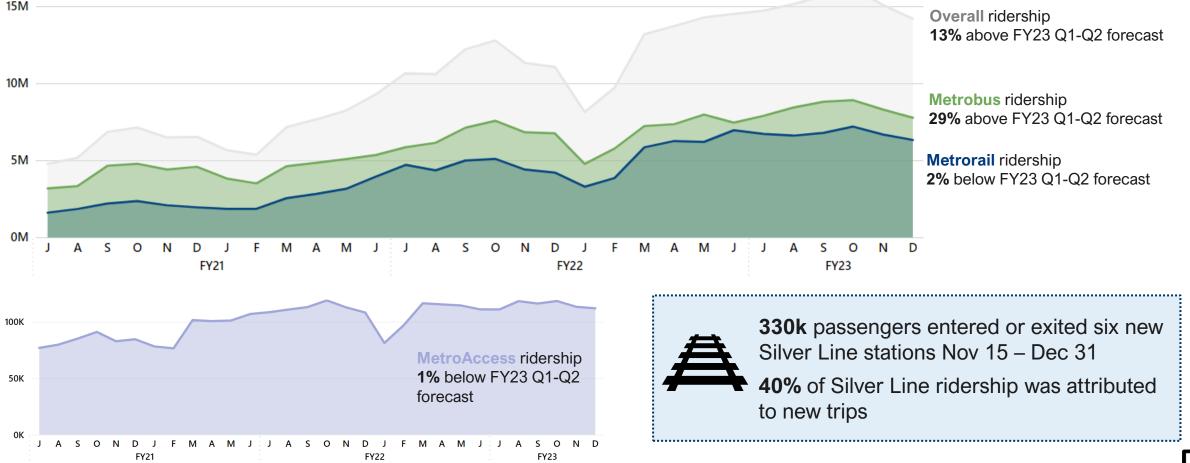
Ridership

Metro ridership is steadily increasing in FY23, carrying on average 50,000 more customers on Bus and 81,000 more customers on Rail per weekday compared to the first two quarters of FY22. On an average Tuesday - Thursday, we carry 625,000 customers.
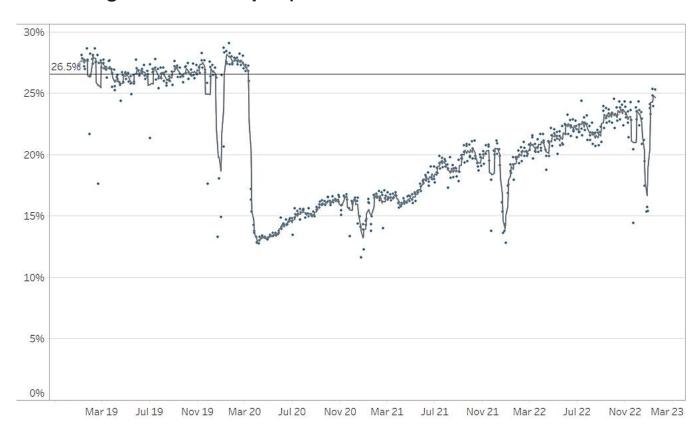
Ridership trend | FY21 through FY23 Q2

Overall ridership
13% above FY23 Q1-Q2 forecast

Metrobus ridership
29% above FY23 Q1-Q2 forecast

Metrorail ridership
2% below FY23 Q1-Q2 forecast

MetroAccess ridership
1% below FY23 Q1-Q2 forecast

330k passengers entered or exited six new Silver Line stations Nov 15 – Dec 31

40% of Silver Line ridership was attributed to new trips

New Metrorail Ridership Patterns

Tuesday, Wednesday, Thursday are highest, with over a quarter of ridership occurring at 8am and 5pm

Percent of Tuesday, Wednesday and Thursday Metrorail Ridership Occurring at 8am and 5pm | March 2019 - December 2022

- 10-20% more daily trips on Tuesdays, Wednesdays, and Thursdays compared to Mondays and Fridays

- Commute trips as a share of total trips is approaching pre-pandemic levels

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Evening and Weekend Ridership Patterns
Customers are using the system for entertainment, shopping and commuting

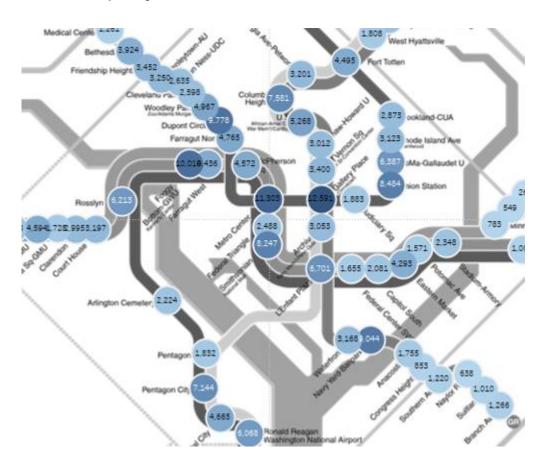**Average weekend entries and exits at Metrorail stations** | July 2022- December 2022

- Highest weekend ridership Metrorail stations and Metrobus Routes are destinations for night life, sports, concerts, museums shopping or hospitals

Top 10 Metrobus Routes by Average Saturday Ridership | July 2022- December 2022

Bus Route(s)	Name	Avg. Saturday Ridership
52,54	14th Street	8,000
X2	Benning Road-H Street	7,700
90,92	U Street-Garfield	6,300
31,33	Wisconsin Avenue	6,200
C2,4	Greenbelt-Twinbrook	5,800
70	Georgia Avenue-7th Street	4,800
W4	Deanwood-Alabama Avenue	4,700
K6	New Hampshire Avenue-Maryland	4,700
V2,4	Capitol Heights - Minnesota Ave.	4,500
28A	Leesburg Pike	4,400
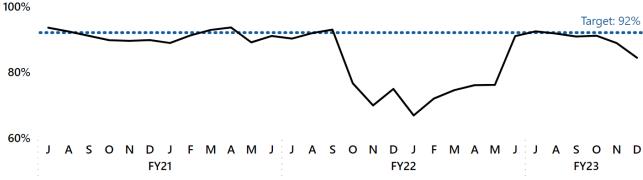
Metrorail On-Time Performance
Average wait times fell 2-3 minutes

🔵 **90%** customers trips were on-time

- Average wait times fell 2-3 minutes between July and December as more 7000-series trains returned to service

- Decrease in on-time trips in November and December due to more disruptions; trains held by police more than doubled

Percentage of Rail Customer Trips On-Time | FY21 through FY23 Q2

Target: 92%

100%

80%

60%

J A S O N D J F M A M J   J A S O N D J F M A M J   J A S O N D

FY21   FY22   FY23
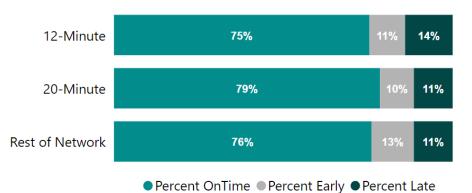
Hire **24** Customer Experience Liaisons to help wayfinding, improve response to disruptions

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🔵 **Target met**   🟠 Target at risk   🔴 **Target missed**

Metrobus On-Time Performance
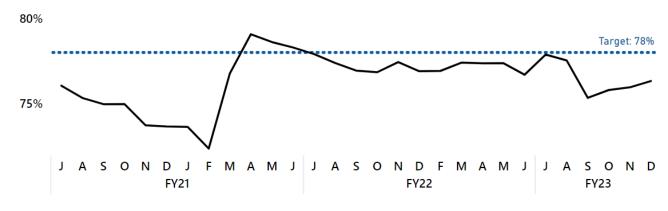
● **76.5%** of bus service on-time, missing target of no less than **78%**

OTP by service frequency | FY23 Q1-Q2

- 12-Minute: 75% | 11% | 14%
- 20-Minute: 79% | 10% | 11%
- Rest of Network: 76% | 13% | 11%

● Percent OnTime ● Percent Early ● Percent Late

OTP (Timepoints delivered no more than 2 min early or 7 min late) | FY21 through FY23 Q2

80%

Target: 78%

75%

J A S O N D J F M A M J   J A S O N D F M A M J   J A S O N D
FY21   FY22   FY23

Improve accuracy of schedules for **17** routes to reflect traffic patterns

Monitor on-time departure from depot of **over 1,800** scheduled buses each weekday + ensure GPS is enabled

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● **Target met**   ● **Target at risk**   ● **Target missed**

MetroAccess On-Time Pick-up Performance

● **92.4%** of Access customers picked up on-time, meeting target of no less than **92%**
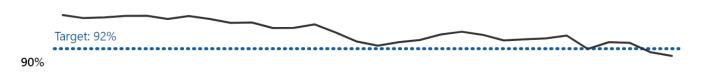
Monitor and address trips projected to be late:

- Re-assign to a taxi or alternative resource

- Re-assign to new operators

Percentage of vehicles that arrive at the pick-up locations within the scheduled 30-min pick-up window

OCC contractor onboarded **5 new Dispatch Supervisors** and recruit up to **12** more dispatch staff.

Service delivery providers utilizing **incentives to operators** who cover all their scheduled routes; offer financial incentives to work some overtime; and continue to recruit new operators.

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● **Target met**   ● Target at risk   ● **Target missed**
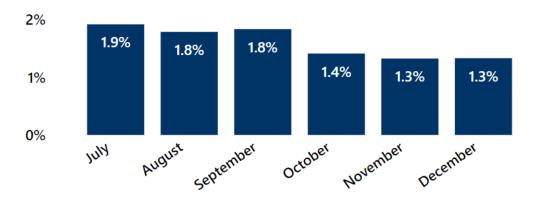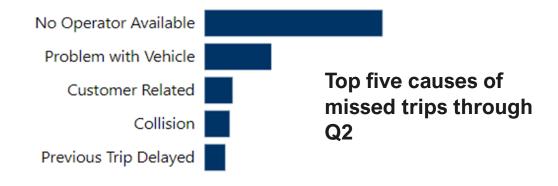
Bus Missed Trips

Missed trips are decreasing and well below industry average of 5-15%. In December, Metro missed fewer than 175 out of over 13,000 trips each day

1.6% of scheduled bus service was missed (no target in FY23; lower performance is better)

Top five causes of missed trips through Q2

Hire **11** new instructors to train bus operators; **2** started in Q2.

Over **100** new bus operators graduated from training and began driving in Q2.

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● **Target met**   ● Target at risk   ● **Target missed**

Safety and Security are Important to Customer Satisfaction

⬤ **6.1 Part 1 Crimes per million passengers** in FY23, Q1-Q2

to **zero**

FY23 target: 6.5

Chart axis values: 20, 15, 10, 5, 0

Months: J A S O N D J F M A M J (FY19) | J A S O N D J F M A M J (FY20) | J A S O N D J F M A M J (FY21) | J A S O N D J F M A M J (FY22) | J J A S O N D (FY22)
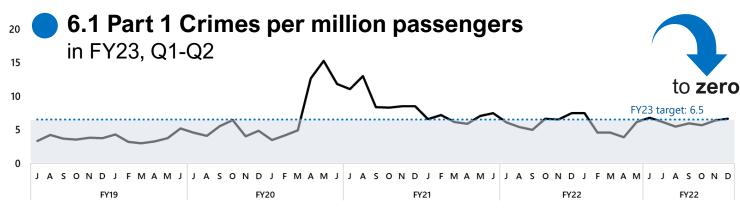
⬤ **Bus customer and employee assaults**

12.5 assaults per 10 million vehicle revenue miles
24 assaults during last Q1-Q2 of FY23, 70% more than same period last year, mostly due to assaults between customers (21 of 24)

⬤ **Rail employee injuries**

3.9 injuries per 200,000 hours worked
102 employee injuries during first 6 months of FY23. Uptick in December due to increase in assault injuries and stress injuries related to witnessing violence and attempted suicides

- Operation HelpingHands: **2,700+** employees engaged, **1,100+** train cars inspected, **670+** buses inspected
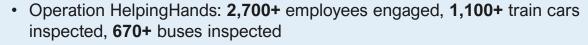
- **4** live-feed monitors installed at station entrances; expand cameras on buses and trains

- **4** Crisis Intervention Specialists recruited, **75+** pop-up outreach events since July, **3-4** community events per month

- Partnering with local police to quickly investigate and solve crimes. Responded to **51,600+** calls for service in 2022

- **All 585** Station Managers and Rail Operations Supervisors have completed de-escalation training

- Provide **counseling services** to all Metro employees

⬤ **Target met**   ⬤ **Target at risk**   ⬤ **Target missed**

Coming Soon: Detailed Customer Dashboard

M metro **Metrobus Customer Dashboard**

On the following day(s): [Date(s)] ▽

For the following route(s): [Route] ▽

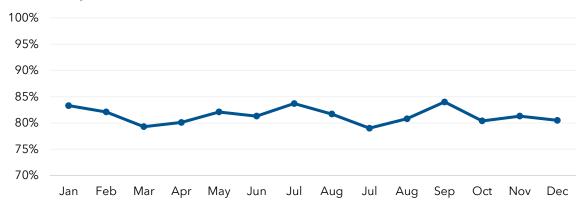**During this time of day:** [Service period] ▽

KEY STATS

98% of scheduled bus trips occurred

85% of these buses were on time

95% of had real-time predictions available

90% of these predictions were accurate

On-time performance over time

Click here for crowding info

Click here for ridership

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Appendix

Rail Missed Service

● **3.5%** of scheduled rail service missed, meeting target of no more than **6%**

- Disruptions are top cause for missed service, and have increased over last 6 months

- Only about 13% of missed service due to lack of operators or trains

Target: 6%

5%

0%

J A S O N D J F M A M J   J A S O N D J F M A M J   J A S O N D
FY21   FY22   FY23

Certify **15-30** new train operators each month. **39** graduated between October and December.

Metro hired **24** Customer Experience Liaisons, who will be available to assist during public-related incidents, enabling faster resolution.
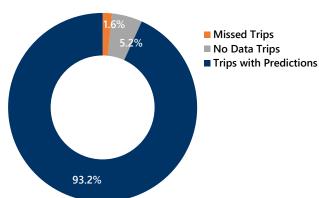
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● **Target met** ● Target at risk ● **Target missed**

Ⓜ metro

Bus Prediction Availability

⬤ **93.2%** of scheduled bus trips with real-time prediction data (no target in FY23; higher values are better)
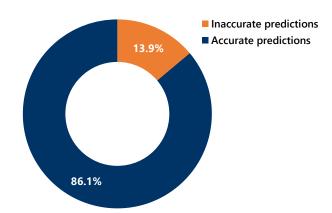
Bus Prediction Availability in FY23 Q1-Q2

1.6%
5.2%
93.2%

■ Missed Trips
■ No Data Trips
■ Trips with Predictions

Routes with lowest prediction availability in FY23

B27	78.2%
X3	78.4%
U4	79.6%
11C	80.8%
A31	83.8%
S35	83.8%
W6	84.5%
W8	84.7%
18J	85.0%
W2	85.3%

Eliminated "ghost" buses from busETA

Repaired GPS units on **41** vehicles through Q2 FY23

Bus Prediction Accuracy

⬤ **86.1%** of real-time predictions were accurate
(no target in FY23; higher values are better)

Bus Prediction Accuracy in FY23 Q1-Q2

13.9%
86.1%

■ Inaccurate predictions
■ Accurate predictions

Routes with lowest prediction accuracy in FY23

D34	63.7%
D31	67.1%
3Y	67.4%
3F	71.5%
W47	72.0%
W5	72.6%
X3	76.0%
S41	76.7%
74	77.5%
D33	77.9%

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⬤ **Target met**　⬤ **Target at risk**　⬤ **Target missed**

Ⓜ metro

Metrorail Crowding

Metrorail crowding began to decrease in Q2, with 0.6% of passenger time in crowded conditions (>100 passengers per car) **across FY23 through Q2**

35% more train trips to increase capacity and alleviate the crowding that occurs during peak times since June

Usual seasonal dip in November and December

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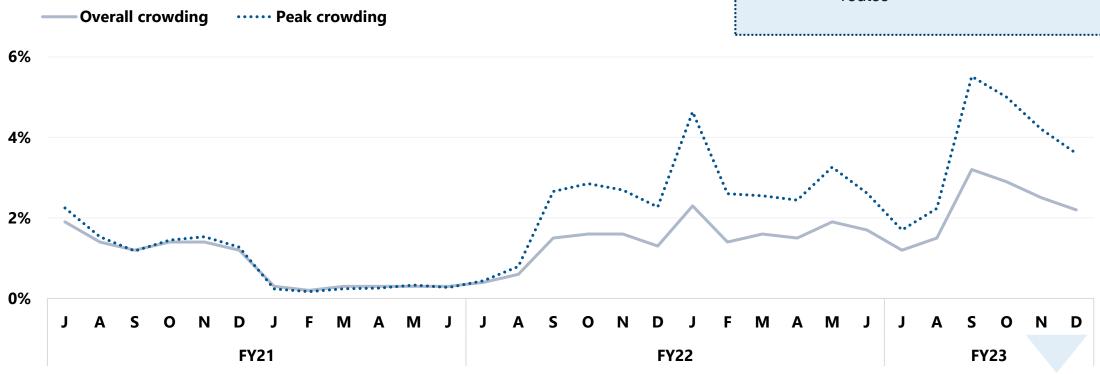
Metrobus Crowding

Metrobus crowding has declined since September 2022—mirroring a slight decline in ridership—with 2.3% of passenger time in crowded conditions*

6 of the **10** most crowded routes are school routes

Usual seasonal dip in November and December
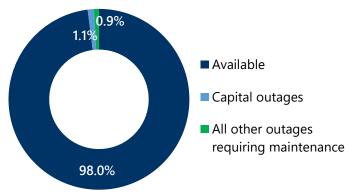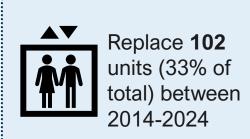
Crowding is defined as >40 passengers per bus for a 40-foot bus, which is when all seats are occupied on the vehicle. During weekday peak periods, crowding is defined as >120% of seated capacity (48 people) for BRT, framework, and coverage routes.

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Elevator Availability

🔵 **98.0%** of elevators were available on average, meeting target of at least **97.5%**
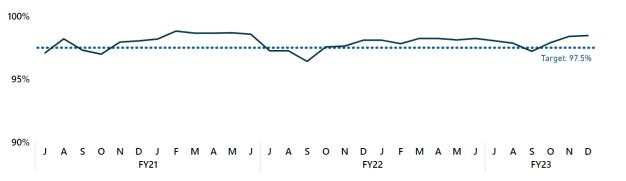
Escalator Availability
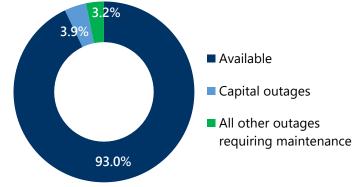
🔵 **93.0%** of escalators were available on average, meeting target of at least **92.9%**

Elevator Availability Breakdown | FY23 Q1-Q2

- Available — 98.0%
- Capital outages — 1.1%
- All other outages requiring maintenance — 0.9%

Replace **102** units (33% of total) between 2014-2024

Escalator Availability Breakdown | FY23 Q1-Q2

- Available — 93.0%
- Capital outages — 3.9%
- All other outages requiring maintenance — 3.2%

Replace **130** units and rehabilitate **86**

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🔵 **Target met** 🟠 **Target at risk** 🔴 **Target missed**

Bus employee injuries
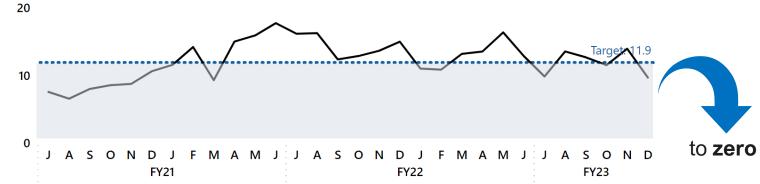
● **11.9** Bus employee injuries per 200,000 hours worked, meeting target of no more than **11.9**

- 228 bus employees injuries during first 6 months of FY23
  - 69 collision-related
  - 61 stress
  - 33 slips/trips/falls
- 9% decrease from same time in FY22

to **zero**
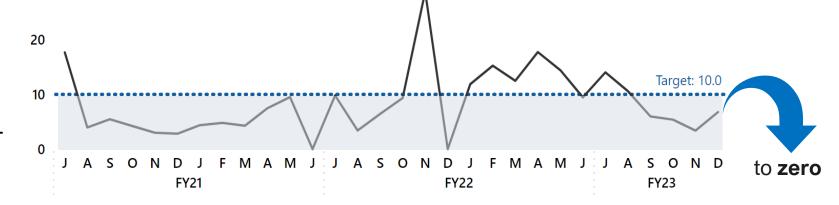
Partner with Local 689 Labor Union to increase proactive identification of safety hazards and collaborate to find solutions

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● **Target met**   ● Target at risk   ● **Target missed**

Metrorail Customer and Employee Assault Rate

🔵 **7.3** Rail customer and employee assaults per 10 million vehicle revenue miles, meeting target of no more than **10**

- 23 total assaults in first 6 months of FY23: 5 employee and 18 customer
- 15% decrease in number of assaults from same time in FY22, with 4 fewer employee assaults

Target: 10.0

J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
FY21   FY22   FY23

to **zero**

All 585 Station Managers and Rail Operations Supervisors have completed de-escalation training

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🔵 **Target met**   🟠 Target at risk   🔴 **Target missed**

Ⓜ metro

Metrorail System Safety Event Rate
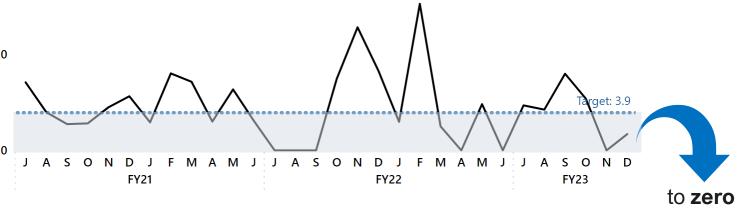
🔵 **3.8** Rail safety events per 10 million vehicle revenue miles, meeting target of no more than **3.9**

12 events during first 6 months of FY23:

- 4 maintenance vehicle derailments
- 4 persons struck by trains
- 3 smoke/fire incidents (1 arcing/burning cable)
- 1 gas leak

11 events during same period in FY22

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

🔵 **Target met**   🟠 Target at risk   🔴 **Target missed**

Metrobus Safety Event Rate

🔵 **48.2** Bus safety events per 10 million vehicle revenue miles, meeting target of no more than **53.0**

- 92 safety events: 87 collisions, three fires, two other
- 63% of all events were non-preventable collisions

Target: 53.0

to **zero**

With labor union, visit **4** collision "hot spots" in Q2 to raise awareness and strategize safety mitigations

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

🔵 **Target met**   🟠 **Target at risk**   🔴 **Target missed**

MetroAccess Safety Event Rate

🔴 **36.8** Access safety events per 10 million revenue miles, missing target of no more than **19.5**

- Overall safety events down 11% in Q2 compared to Q1

- 35 major safety events in total, compared to 33 through Q2 of FY22

- 33 of 35 are collisions, one smoking vehicle, one passenger assistance incident

In December, broadcast daily safety messages over the radio in December, and include on **over 650** trip manifest coversheets on weekdays and **200** on weekends
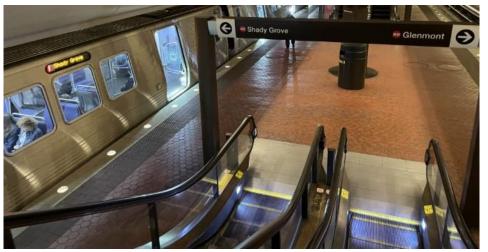
Starting Q2, shift supervisors implemented approximately **25,000 'Ready for Work' checklists** to prevent fatigued operators from driving, reducing the likelihood of a preventable collision.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

● **Target met**   ● Target at risk   ● **Target missed**

Metrorail System Customer Injury Rate

🔵 **12.4** Rail customer injuries per 10 million revenue miles, meeting target of no more than **20.6**

- 39 injuries during first six months of FY23: 37 slip/trip/falls and two passengers struck by trains when they intentionally entered the tracks. Almost two-thirds of slips/trips/falls are on escalators

- Two fewer injuries than same period last year (also mostly slip/trip/falls)

Install Newell end safety signs on **nine escalators**: six at L'Enfant and three at Foggy Bottom

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

🔵 **Target met**   🟠 **Target at risk**   🔴 **Target missed**

Metrobus Customer Injury Rate

🔵 **55.3** Bus customer injuries per 10 million revenue miles, meeting target of no more than **56.4**

106 injuries during first 6 months of FY23:

- 59 slips/trips/falls (many due to hard braking)
- 40 related to collisions
- Seven other

Target: 56.4

J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D

FY21   FY22   FY23

to **zero**

Supervisors conducted **113** "efficiency rides" in Q2, **80% more** than in Q1.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

🔵 **Target met**   🟠 Target at risk   🔴 **Target missed**

M metro

MetroAccess Customer Injury Rate

🟠 **16.8** Access customer injuries per 10 million revenue miles, missing target of no more than **15.6**

- 16 injuries during first 6 months of FY23, two fewer than FY22:
  - 11 related to collisions
  - Five slips/trips/falls (several due to hard braking)

Target: 15.6

to **zero**

📹 Updated DriveCam units on **581** vehicles and activated in-vehicle behavioral recognition and alerting capability.

♿ **Doubled frequency** of operator wheelchair securement recertification to twice annually.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

● **Target met**   ● Target at risk   ● **Target missed**

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

PERFORMANCE REPORT

FY2023 Q2
July – December 2022

Published February 6, 2023

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MESSAGE FROM THE GENERAL MANAGER

Randy Clarke
General Manager & Chief Executive Officer, WMATA

This report provides data for the first six months of fiscal year 2023 (FY23), from July 1 through December 31, 2022. While we still have work to do to provide the consistent, high-quality service that the region deserves, I'm pleased to share that we've made significant progress on two of the most important performance measures: customer satisfaction and ridership.

Thanks to a tremendous amount of customer input and a sense of urgency among our entire team of committed Board Members and staff, Metrorail customer satisfaction jumped from 69 percent at the end of June to 79 percent in December, driven by an increase in train capacity of 35 percent to accommodate returning customers. Since we began a new phase of our return to service plan for our 7000-series railcars, we have more frequent and safe service, with Red, Blue, Orange and Silver Line trains now operating 20 percent more often than just a few months ago. Metrobus customer satisfaction rose six points to 75 percent thanks to shorter wait times, better reliability, and improved cleanliness.

Higher customer satisfaction is leading to higher ridership. Ridership has increased by 33 percent this year compared to this time last year. Between July and December 2022, we carried over 91 million trips, connecting riders to schools, jobs, fellowship, entertainment, and airports, taking them to new adventures. Through the mobility we provide, we help connect the region, drive growth, improve safety, and reach our climate change goals.

This holiday season, Metro further demonstrated our value to the region by giving back to the communities we serve. Here are several of the events organized by our team to provide food, clothing, and gifts to community members:

- Metro Transit Police Department (MTPD) Officers provided a Thanksgiving Day meal to over 200 people at Anacostia Station.

- MTPD provided a special dinner at a local shelter where 30 families received holiday gifts and necessities and took the holiday bus to Amidon-Bowen Elementary, where over 200 children experienced joy and hot cocoa thanks to Starbucks at Capital Plaza.

- MTPD and Rail and Bus Operations teamed up with Mission BBQ-Greenbelt, Amtrak Police Department, and H3 Project DC to provide over 100 people with hot meals and cold weather clothing at a Union Station event.

- Metro transported thousands of customers participating in Wreaths Across America to honor and remember our American heroes laid to rest at Arlington National Cemetery.

- Metro employees raised about $5,000 in cash donations, holiday gifts for children, and daily necessities for those in need. This support was distributed to over 500 people who attended six holiday-decorated bus events between December 19-23.

- As part of our fifth annual food drive, Metro staff and customers raised $14,390 and donated 4,110 pounds of food to the Capital Area Food Bank, enough for 32,205 meals to families facing food insecurities in our region.

In December, we shared with the public our draft strategic plan: #YourMetro, The Way Forward. This plan will provide a long-term strategy and direct Metro's day-to-day decision-making over the next five plus years. The draft plan has four goals to support our vision of being the region's trusted way to move more people safely and sustainably: service excellence, regional opportunity and partnership, sustainability, and talented teams. Each of these goals is supported by objectives, and progress will be tracked through key performance metrics – many of which are already included in this report. The final plan will be announced this spring. In the meantime, we've already started implementing improvements in the areas we know are important, and I'm pleased to include updates here on our progress.

Addressing fare evasion

Fare evasion is a major issue. During the first six months of FY23, we estimate that about 13 percent of Metrorail customers and 30-51 percent of Metrobus customers did not pay their fare. The fare evasion citation program began by MTPD on November 1, 2022, has been having an impact. We estimate that targeted enforcement has resulted in about 7,500 fewer instances of fare evasion. Less than two percent of MTPD engagements on fare evasion result in citation or arrest; in most cases, customer self-correct or leave the station.

In addition, to mitigate the behaviors that have become commonplace, we've installed a prototype faregate at Fort Totten Station to test two new features: saloon door gates (instead of the current paddles) and clear arches on top of faregate cabinets. Both test features are designed to mitigate jumping the faregates, the most common form of fare evasion. We'll seek feedback from our staff and customers and continue refining concepts leading to the possible selection and deployment of a retrofit solution system-wide starting in 2023.

Enhancing real-time customer communications

The majority of our customers rely on real-time information to plan their trips. Metro provided real-time data for over 93 percent of our scheduled bus trips this fiscal year. In mid-December we completed adjustments to our real-time busETA website to eliminate "ghost buses" by only showing information for buses that are verifiably in service. Staff are working on additional upgrades to show departure times at terminal stations rather than the arrival time of the preceding trip, and customers are proactively notified of cancelled trips.

On Metrorail, we added estimated crowding info in the 21 stations with our newest Next Train signs. Shown next to car length, this info is based on previous trends at each stop and helps you determine if you may get a seat or need to spread out. Thanks to our addition of more 8-car trains with over 30 7000-series trains running every day, as well as the additional train trips we've added, crowding generally remains low on Metrorail, with less than one percent of passenger time on average spent in railcars with over 100 passengers.

Expanding the system to connect customers to the region's transportation network

On November 15, 2022, we opened six new stations on the Silver Line. During the first six weeks of service, over 330,000 customers entered or exited these new stations, 40 percent of which were new trips. We have an active marketing campaign with commercials, mailers, and print advertisement to raise awareness and ridership.

We continue to work with our jurisdictional partners to implement improvements at existing stations that make it easier and more comfortable for our customers to make transportation connections. This fall, improvements at Ballston Station were completed that extended the public plaza for pedestrians, implemented dedicated bus bays for faster entry and exit of buses, upgraded bus shelters, and added new signage and lighting.

Working with public and private sector partners to build housing and commercial property near Metro stations is another way that we expand ridership and connect communities. This fall, we had a ground breaking ceremony on a joint development project to build 574 new homes at Grosvenor in Montgomery County.

May 2023 will be a big month for Metro. We will open Potomac Yard, our 98th station, and re-open the Yellow Line. We look forward to providing new rail service to this rapidly growing area that includes a new development with a mix of retail, residential and commercial property, and the new Virginia Tech Innovation Campus.

Delivering more frequent service

I'm proud that despite the difficulty all transit agencies in the United States are facing to recruit and retain operators, we've been able to successfully onboard hundreds of staff and minimize service disruptions due to operator availability. The region relies on us to provide our service as scheduled, and during the first six months of the fiscal year we missed 3.5 percent of rail service and 1.6 percent of bus service. In comparison, some of our peer agencies are missing 15-25 percent of bus or rail trips. Bus missed trips have continued to fall since October as we've been able to train and graduate 100 operators. We will need to continue this pace over the next six to 18 months as we look to continue to improve frequencies on both rail and bus.

On December 5, 2022, we improved frequencies on the Red Line to every eight minutes during the rush hour periods of 6-9 am and 3-7 pm. Gradual service improvements are anticipated this winter and into the spring, as we work with the Washington Metropolitan Safety Commission to execute Phase 3 of our Return to Service plan and add more 7000-series trains.

On December 11, 2022, we rolled out Metrobus improvements to 29 routes that ranged from adjusting running times to improve reliability, adding frequency, extending routes and adding stops, to extending hours of service. Between these improvements, the Better Bus Network Redesign, and ongoing bus priority projects, we hope to raise bus on-time performance above the current level of 76.5 percent, which is below our target of 78 percent.
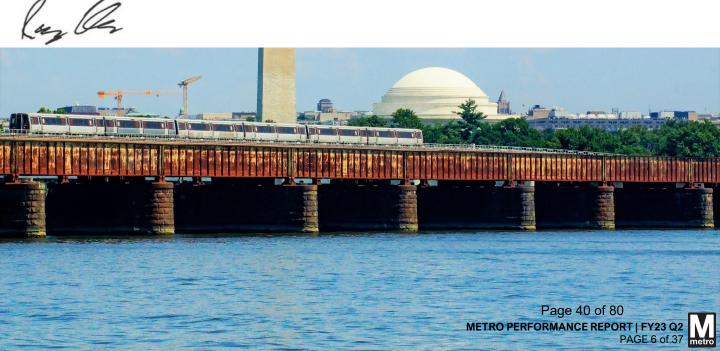
Keeping our employees and customers safe

While the crime rate remains below the average we've seen over the past two fiscal years, it has been rising slightly over the past six months. Unfortunately, Metro is not immune to societal ills, including the increase in gun violence. On February 1, 2023, Metro lost a heroic employee, Robert Cunningham, who intervened on behalf of a customer at Potomac Avenue Station and was a victim of senseless gun violence. The fact that we have more officers deployed in our system allows us to quickly respond, and the hiring of crisis intervention professionals, along with enhanced video surveillance, helps to improve system safety for all of us. However, these senseless acts must be addressed together by our leaders and community.

Upgrading the system to improve reliability and safety

As Metrorail turns 47, our investments in replacing dated equipment to increase safety and reliability are as important as ever. Water leaks in Metrorail tunnels increase the risk of arcing incidents that can lead to fires and disrupt service. This quarter we've been conducting work overnight and on weekends on the Red Line to reduce water infiltration. The curtain grouting process requires drilling several holes in the tunnel concrete lining at regular spacing along the tunnel alignment and injecting a special grout material that will spread outside the tunnel lining and reduce water entering. We are currently conducting this work between Silver Spring and Forest Glen stations and will move between Tenleytown-AU and Friendship Heights stations later this year.

We are honored to service this community and thank you for your continued support. We'll see you on your next ride!

ABOUT THIS REPORT

The Washington Metropolitan Area Transit Authority's (Metro) Performance Report highlights Metro's fiscal-year-to-date performance on a suite of measures that look retrospectively at how well the agency is delivering its mission to provide safe, equitable, reliable, and cost-effective public transit. These measures follow industry standard and align to the safety performance measures established in the Federal Transit Administration's National Public Transportation Safety Plan. Metro updates performance targets for its measures annually, reflecting the priorities, investments, and improvements anticipated for the coming year. The report communicates performance results relative to these targets, shows performance trends over the prior two years, and identifies actions that staff are taking to continuously improve.

Colored indicators throughout the report show each measure's FY results against target:

● **Target met**   ● **Target at risk**   ● **Target missed**

ABOUT METRO

Metro is one of the largest transit organizations in the United States. Formed in 1967 under an interstate compact among the District of Columbia, the State of Maryland, and the Commonwealth of Virginia, the Metro service area is approximately 1,500 square miles, with a population of approximately four million people. Metro provides three core transit functions: Metrorail, Metrobus, and MetroAccess paratransit. Across all three modes, Metro currently carries about 540,000 passenger trips on an average weekday.
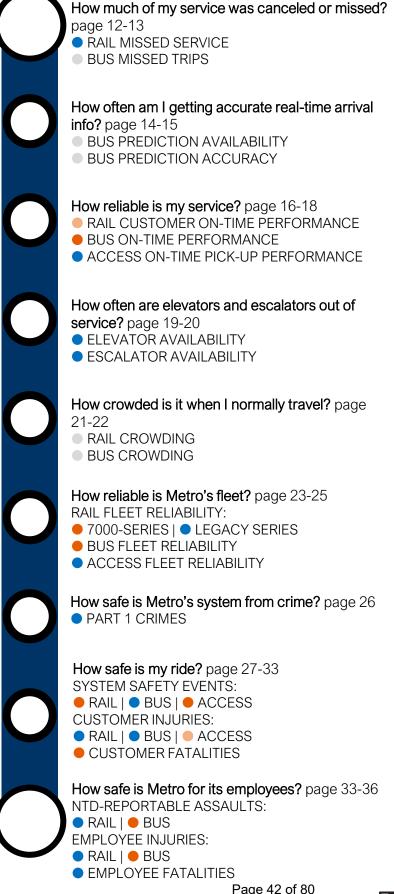
FYTD Scorecard:
The Customer Experience Measured

Through Q2 of FY23, Metro met **14 of the 26 measures** with FY23 targets featured in this report

- 🔵 Target met
- 🟠 Target at risk
- 🔴 Target missed
- ⚪ No target

Metro Ridership | page 9

Metro Customer Satisfaction | page 10-11
- 🔵 RAIL
- 🟠 BUS
- 🔴 ACCESS

How much of my service was canceled or missed? page 12-13
- 🔵 RAIL MISSED SERVICE
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- ⚪ BUS PREDICTION AVAILABILITY
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- 🟠 RAIL CUSTOMER ON-TIME PERFORMANCE
- 🔴 BUS ON-TIME PERFORMANCE
- 🔵 ACCESS ON-TIME PICK-UP PERFORMANCE

How often are elevators and escalators out of service? page 19-20
- 🔵 ELEVATOR AVAILABILITY
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How crowded is it when I normally travel? page 21-22
- ⚪ RAIL CROWDING
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How reliable is Metro's fleet? page 23-25
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- 🔴 7000-SERIES | 🔵 LEGACY SERIES
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How safe is Metro's system from crime? page 26
- 🔵 PART 1 CRIMES

How safe is my ride? page 27-33
SYSTEM SAFETY EVENTS:
- 🔴 RAIL | 🔵 BUS | 🔴 ACCESS
CUSTOMER INJURIES:
- 🔵 RAIL | 🔵 BUS | 🟠 ACCESS
- 🔴 CUSTOMER FATALITIES

How safe is Metro for its employees? page 33-36
NTD-REPORTABLE ASSAULTS:
- 🔵 RAIL | 🔴 BUS
EMPLOYEE INJURIES:
- 🔵 RAIL | 🔴 BUS
- 🔵 EMPLOYEE FATALITIES

RIDERSHIP

Rounded to the nearest ten thousand

Total

Budget | 80,830,000

Actual | **91,060,000**

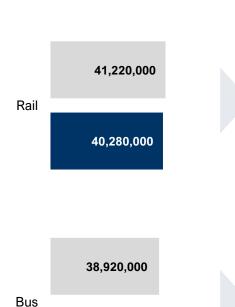**Metro carried 91 million riders across Rail, Bus, and Access in the first half of FY23, 13 percent above the budget forecast of 80.8 million and a 33 percent increase from the same period in FY22.** Metrobus ridership accounted for 55 percent of total ridership, exceeding Metrorail ridership by about 10 million riders.

Rail

41,220,000

40,280,000

Metrorail
In the first half of FY23, Metrorail ridership was 40.3 million, two percent below the forecast, but a 45 percent increase over the same period in FY22. Within the first six weeks of the Silver Line extension opening on November 15, about 330,000 passengers entered or exited one of the six new stations. Forty percent of Silver Line ridership during this time was attributed to new trips.

Average weekday ridership through Q2 FY23 was 252.1 thousand and average weekend ridership was 146.7 thousand, an increase of 49 percent and 32 percent respectively from the same period in FY22. Rush hour ridership, especially the stronger demand around 8 am and 5 pm on Tuesday, Wednesday and Thursday, has been steadily returning.

Bus

38,920,000

50,090,000

Metrobus
In the first half of FY23 over 50 million passengers rode Metrobus, 29 percent over the forecast and a 24 percent increase over the same period in FY22. Ridership decreased during the holiday season, which is a common seasonal trend.

Average weekday ridership in Q2 of FY23 was 282.8 thousand and average weekend ridership was 139.7 thousand, both an increase from the same time period last year.

Access

693,200

688,900

MetroAccess
In the first half of FY23, MetroAccess ridership was 689 thousand, one percent under the forecast and three percent more than the same period in FY22. Ridership remained stable in the first half of FY23, ranging between 111 thousand and 118 thousand passengers per month. Pre-pandemic ridership was around 200 thousand passengers per month.

Metro's **Ridership Data Portal** provides ridership data since 2010, including during the pandemic. Engage with the data through interactive dashboards using the Data Viewers (**Rail**, **Bus**, **Parking**)

Average weekday ridership through December of FY23 was 4.6 thousand, about the same as the first half of FY22.

CUSTOMER SATISFACTION

● **79%** customer satisfaction for Metrorail in Q2, meeting target of **79%** or better
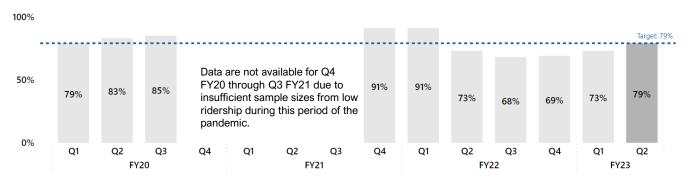
Metrorail customer satisfaction continued its steady climb, jumping from 69 percent at the end of June to 79 percent by the end of December. This reflects a 35 percent increase in train capacity over this time period which led to lower wait times and more 8-car trains for customers. Concerns about safety and crime remain at the forefront for many customers.

Measure Details: What and Why
Customer satisfaction is a gauge of Metro's service quality and a key driver of ridership. It helps Metro leadership understand the impact of its service improvement efforts, and overall public sentiment of Metro. FY23 targets were set to achieve the 5-year average satisfaction level, which would be an increase of 10 percentage points for Metrorail and seven percentage points for Metrobus compared to FY22 year-end performance results.

Customer Satisfaction against **dotted line target**
Y: % of customers who were satisfied with their last Metrorail trip | X: quarter
Direction of desired performance: up ↑

Target: 79%

Data are not available for Q4 FY20 through Q3 FY21 due to insufficient sample sizes from low ridership during this period of the pandemic.

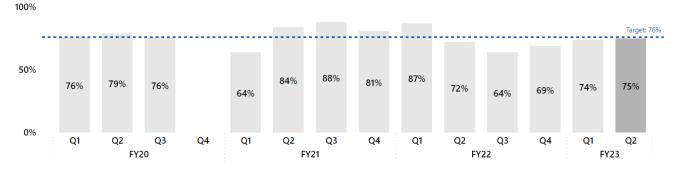|	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
	79%	83%	85%					91%	91%	73%	68%	69%	73%	79%
		FY20				FY21				FY22				FY23

● **75%** customer satisfaction for Metrobus in Q2, just missing target of **76%** or better

Bus customer satisfaction continued to improve, approaching pre-pandemic satisfaction rates (Q1-Q3 of FY20). There were slight improvements in customers' feelings of safety from accidents or accidental injury. However, customers perceived small increases in crowding on buses. Similar to rail, passengers are concerned about safety from crime and harassment.

Customer Satisfaction against **dotted line target**
Y: % of customers who were satisfied with their last Metrobus trip | X: quarter
Direction of desired performance: up ↑

Target: 76%

	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
	76%	79%	76%		64%	84%	88%	81%	87%	72%	64%	69%	74%	75%
		FY20				FY21				FY22				FY23

● **78%** customer satisfaction for MetroAccess in Q2, missing target of no less than **90%**
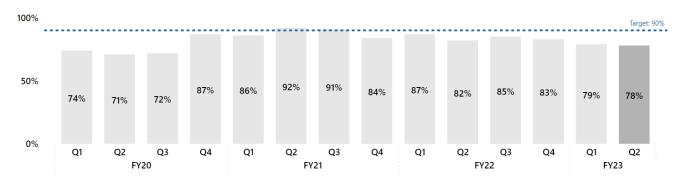
MetroAccess customer satisfaction remained flat in Q2, returning to levels seen pre-pandemic. Satisfaction rose in the pandemic as MetroAccess suspended shared rides in order to enable social distancing.

Measure Details: What and Why
Customer satisfaction is a gauge of Metro's service quality and a key driver of ridership. It helps Metro leadership understand the impact of its service improvement efforts, and overall public sentiment of Metro. FY23 targets were set to achieve the 5-year average satisfaction level, which would be an increase of 10 percentage points for Metrorail and seven percentage points for Metrobus compared to FY22 year-end performance results.

Customer Satisfaction against **dotted line target**
Y: % of customers who were satisfied with their last MetroAccess trip | X: quarter
Direction of desired performance: **up** ↑

	FY20				FY21				FY22				FY23	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
	74%	71%	72%	87%	86%	92%	91%	84%	87%	82%	85%	83%	79%	78%

Target: 90%

Shared rides returned in FY23. Concerns with how operators are routed during trips remained a cause of dissatisfaction, and Q2 saw lower satisfaction with dispatch coordination with the operator and being picked up in the promised pick-up window.

To help improve dispatch coordination, the call center onboarded five new dispatch supervisors and is continuing to recruit up to 12 additional dispatchers and assigned designated personnel to monitor the "late trip board" to proactively identify dwelling operators and routes experiencing delays. In addition, to improve on-time pick-ups, service delivery providers have begun introducing incentives to operators for completing all scheduled routes and/or coming in on a scheduled day off, to better consistently meet service level demand.

MetroAccess also began informing customers of total trip time at the time of booking to help right-size customer expectations of on-board time.

3.5% of scheduled rail service missed, meeting target of no more than **6%**

Single-tracking and reduced frequencies due to weekday evening and midday track work account for almost one-fourth of missed rail service, followed by rail vehicle and public-related incidents such as medical emergencies. About 13 percent of missed service was due to operator or train availability.

Measure Details: What and Why
Missed Service monitors Metro's "guarantee of service"—whether Metro is providing all the service that was scheduled and committed to. The target was set to improve over the average performance from FY20-FY22, which was seven percent.

Rail Missed Trips against **dotted line target**
Y: % of rail service delivered | X: month
Direction of desired performance: down ⬇

Chart takeaway | Missed trips spiked in January 2022 when more operators were out sick with Omicron.

Target: 6%

5%

0%

J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
FY21 FY22 FY23

Missed service has increased slightly over the course of the fiscal year. As riders return, the number of disruptions related to medical emergencies and unauthorized persons on the track have increased. Additionally, during Q2, slightly more service was missed in the late-night period as Metro reduced frequencies to enable crews to prepare for overnight track work.

Overnight and weekend maintenance is essential in preventing major system failures and keeping the system in a long-term state of good repair. Staff actively work to identify opportunities to improve the efficiency of overnight track work to minimize the amount of maintenance conducted during the day.
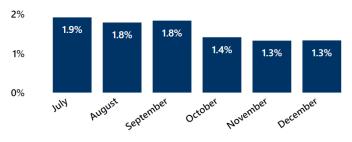
BUS MISSED TRIPS

⬤ **1.6%** of scheduled bus trips were missed (no target in FY23; lower performance is better)

Missed trips have fallen over the past six months, from 1.9 percent in July to 1.3 percent in December, averaging 1.6 percent for the time period.

Measure Details: What and Why
Missed Service monitors Metro's "guarantee of service"—whether Metro is providing all the service that was scheduled and committed to. FY23 is the first year Metro has been able to aggregate all data sources needed to accurately report bus missed trips. Due to the lack of historical data to identify trends, no target has been set for FY23.

Percent of Scheduled Trips that were Missed FYTD

Month	Percent
July	1.9%
August	1.8%
September	1.8%
October	1.4%
November	1.3%
December	1.3%

Causes of Bus Missed Trips FYTD

- No Operator Available
- Problem with Vehicle
- Customer Related
- Collision
- Previous Trip Delayed
- Problem on Roadway
- Other
- Operator Emergency
- Operator Error
- No Bus Available

Chart takeaway | The primary cause of missed trips in FYTD23 is operator availability, followed by mechanical issues causing the bus to go out of service and miss its following trips.

Missed trips happen in two ways: the bus never leaves the depot to deliver service, or the bus is out on the road and service is interrupted due to collisions, mechanical issues, customer medical emergencies, or issues on the road such as police activity. Operator availability is the primary reason the bus never leaves the depot and the largest driver of missed trips overall. A nationwide shortage of bus operators along with elevated absenteeism exacerbate this trend.

Metro is actively working to recruit bus operators by partnering with labor unions to host local job recruiting events. Additionally, Metro is in the process of hiring 11 new instructors to train bus operators, two of whom started in Q2. Over 100 new bus operators graduated from training and began driving in Q2.

Metro also optimized processes for how missed trips are monitored, ensuring that communication between bus depots, the control center, and supervisors out on the street is clear. This improved Metro's ability to utilize buses already staged in the field to cover trips that might otherwise have been missed and to ensure that the last trip of the day was prioritized for coverage.
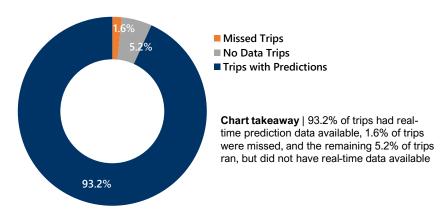
BUS PREDICTION AVAILABILITY

93.2% of scheduled trips with real-time prediction data (no target in FY23; higher values are better)

Bus prediction availability measures the share of scheduled trips for which Metro provides real-time arrival predictions. Metro's tool busETA—along with third-party applications (apps) like Google Maps, Apple Maps, or Transit—display these predictions. Prediction availability improved across FY23 to date: 93.7 percent of scheduled trips with predictions in Q2 from 92.7 percent in Q1.

Measure Details: What and Why
Customers rely on predictions in busETA or other third-party applications to plan their trips when taking Metrobus. Real-time location data is used to predict arrival times when the bus is running ahead or behind schedule. FY23 is the first year that Metro began archiving its prediction data. Due to the lack of historical data to identify trends, no target has been set for FY23.

Bus Prediction Availability in FY23 Q1-Q2

Legend:
- Missed Trips
- No Data Trips
- Trips with Predictions

Chart values: 1.6%, 5.2%, 93.2%

Chart takeaway | 93.2% of trips had real-time prediction data available, 1.6% of trips were missed, and the remaining 5.2% of trips ran, but did not have real-time data available

Over 60 percent of customers use apps to plan their trips, often timing their arrivals at stops based on real-time information. Real-time prediction data may be unavailable for a variety of reasons. Missed or cancelled service accounts for about 1.6 percent of the missing predictions. For the remaining 5.2 percent, the trip was delivered but the bus GPS device was not logged on or was malfunctioning, or the trip was very far off schedule, resulting in no predictions.

Metro actively monitors buses that aren't reporting location data, working with vendors to fix broken units within three business days. Through Q2 of FY23, Metro repaired GPS units on 41 vehicles. Additionally, Metro conducts campaigns and coaching to ensure all operators log on to enable GPS devices, with a new campaign launched in January 2023.

Metro has taken steps to improve how data is displayed in busETA. In Q2, Metro updated

busETA so that the app only shows buses with real-time info, eliminating "ghost buses" and reducing customer confusion. Staff are also upgrading busETA so that terminal stations show more accurate departure times rather than the arrival time of the preceding trip.

Routes with lowest prediction availability in FY23

Route	Availability
B27	78.2%
X3	78.4%
U4	79.6%
11C	80.8%
A31	83.8%
S35	83.8%
W6	84.5%
W8	84.7%
18J	85.0%
W2	85.3%

Chart takeaway | The B27 had the lowest percentage of trips that had real-time data available for predictions through Q2. Nine out of ten of the lowest performing routes are not part of the Frequent Service Network, meaning that they run every 20 minutes or longer.

*The W2 is a Frequent Service Network route
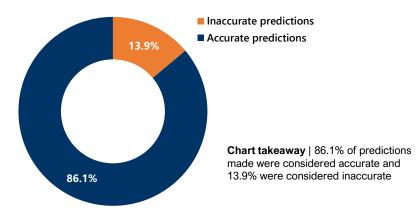
BUS PREDICTION ACCURACY

86.1% of real-time predictions were accurate (no target in FY23; higher values are better)

Metro provides real-time arrival predictions for customers via the busETA tool along with signs at bus stops. Third-party apps like Google Maps, Apple Maps, and Transit also consume these predictions—although these apps may adjust predictions based on additional data sources. Prediction accuracy fell slightly in Q2 compared to Q1, from 86.3 percent to 85.9 percent.

Measure Details: What and Why
Customers rely on predictions in busETA or other third-party applications to plan their trips when taking Metrobus. Predicted arrival times must be close to actual arrival times to reduce excess customer wait time for customers. FY23 is the first year that Metro began archiving its prediction data. Due to the lack of historical data to identify trends, no target has been set for FY23.

Bus Prediction Accuracy in FY23 Q1-Q2

- Inaccurate predictions
- Accurate predictions

13.9%

86.1%

Chart takeaway | 86.1% of predictions made were considered accurate and 13.9% were considered inaccurate

Metro uses the standard developed by the Massachusetts Bay Transit Authority (MBTA) to determine accuracy by comparing the predicted time of arrival to actual time of arrival. Because customers rely more on predictions in the near term, only predictions made within 30 minutes of arrival are evaluated, and standards for accuracy are more stringent as the bus approaches the stop. See the definitions section at the end of this report for more information on the methodology.

Prediction accuracy starts with the bus schedule. Large deviations from the schedule make it harder to predict arrivals. In addition, construction or roadway blockages—which slow buses down and lead to inconsistent travel times—also negatively impact prediction accuracy. Metro is developing new ways to track trips with poor predictions to better identify root causes and improve performance.

Routes with lowest prediction accuracy in FY23

Route	Accuracy
D34	63.7%
D31	67.1%
3Y	67.4%
3F	71.5%
W47	72.0%
W5	72.6%
X3	76.0%
S41	76.7%
74	77.5%
D33	77.9%

Chart takeaway | The D34, D31 and 3Y routes had the lowest levels of prediction accuracy. Many of the lowest performing routes are school routes.

90.5% of rail customer trips completed on-time, missing target of at least **92%**

Metro continues to improve rail service frequencies to reflect increased train availability. This increased service and opening of Silver Line Phase II offer customer convenience but add operational complexity. Customers' trips were on time for an average nine out of 10 trips, although performance declined through the second quarter.

Measure Details: What and Why
Metrorail On-Time Performance is a key measure of service reliability. Rail customer trips are "on-time" if they include waits shorter than the scheduled headways, train journeys that travel at expected speeds, and operational faregates, elevators, and escalators that do not delay travel to and from the platform. The FY23 target was set to improve over the five-year average performance of 89 percent.

Rail On-Time Performance against **dotted line target**
Y: % of on-time customer trips | X: month
Direction of desired performance: up ↑

Chart takeaway | After falling during the sidelining of the 7000-series trains after the Blue Line derailment in October 2021, Rail Customer OTP met target in Q1 FY23, but fell below target in Q2 as Metro continues to adapt to operational changes such as train count increases, escalating ridership, and the opening of Silver Line Phase II.

Unplanned service disruptions lowered on-time performance by about 7.8 percentage points through Q2. Common causes of delay include Metro Transit Police responses to customer incidents, breakdowns of rail vehicles, switch or track circuit failures, or track issues. Midday, late night, and weekend single-tracking or shutdowns for planned maintenance lowered on-time performance by about 1.7 percentage points.

To improve performance, Metro is continuing to return more 7000-series cars to service. As of December, Metro has quadrupled the number of 7000-series trains in service each day, from six or seven to over 30, helping the system be more resilient. Metro also continues to monitor on-time terminal departures and schedule adherence. Trains running on-time mean that customers are also on-time.

Finally, Metro's prioritization of critical repairs to rail infrastructure helps to ensure that the system remains in a state of good repair and minimizes delays due to track, switch or power failures.

76.5% of bus service on-time, missing target of no less than **78%**

After the sharp drop in September, on-time performance slowly improved over the course of Q2. In the first half of FY23, buses with 12-minute or less frequencies were 75 percent on time, buses with 20-minute frequencies were 79 precent on time, and buses with longer frequencies were 76 percent on time.
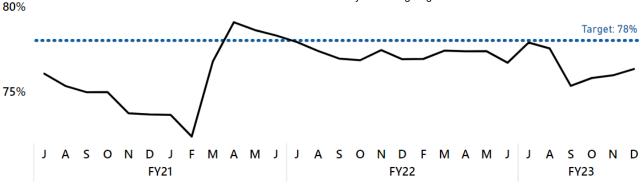
Measure Details: What and Why
Metrobus On-Time Performance is a key measure of service reliability. Buses are considered "on-time" if they are no more than two minutes early or seven minutes late to the major stops on the route schedule. The FY23 target was set to improve over average performance in FY20 and FY22 (77 percent).

Chart takeaway | Bus OTP suffered in early FY21 as buses ran early due to less traffic. A schedule adjustment in March 2021 helped buses be more on time through FY22 and into the beginning of FY23. However, in September of FY23, OTP dropped as traffic increased to pre-pandemic levels. OTP slowly improved over Q2 of FY23, though not yet meeting target.

Metrobus OTP against **dotted line target**
Y: % of on-time buses | X: month
Direction of desired performance: up ↑

Several factors influence bus OTP: bus availability and reliability; bus operator availability; bus operator coaching and training; the accuracy of the bus schedule; disruptions such as customer illness or criminal incidents; and other incidents such as construction, special events and weather.

In Q2, Metro focused on reducing bus bunching (when multiple buses on a route end up at the same stop at the same time) by placing managers at key stops along the routes to adjust spacing. Additionally, Metro made technological changes to no longer show schedule information of buses that are not sending real-time information to public information feeds like transit apps, eliminating the "ghost bus" effect.

Creating accurate bus schedules has become more challenging since the pandemic due to

changes in traffic patterns. Metro implemented a new schedule in December that adjusted running times for 17 routes, which should improve performance in Q3.

To improve operator coaching, Metrobus increased the number of field supervisors stationed at key points along high-ridership routes to monitor operator performance. Additionally, bus depot staff continue to stand in bus depot parking lots to ensure operators are leaving on time and logged onto the bus so that the bus can accurately report real-time information.

ACCESS ON-TIME PICK-UP PERFORMANCE

● **92.4%** of Access customers picked up on-time, meeting target of no less than **92%**

Reduced ridership (58 percent of pre-pandemic demand), coupled with sufficient vehicle resources and leveraging Abilities-Ride partners, have led to strong on-time pick-up performance in the first half of FY23 even as the number of shared rides increases.

Measure Details: What and Why
"On-time" means the vehicle arrives at the pick-up location within the scheduled 30-minute pick-up window. MetroAccess on-time pick-up performance is essential to delivering quality service to the customer. The FY23 target was set to maintain the average performance over the last five years: 92 percent.

Access OTP against **dotted line target**
Y: % of on-time stops | X: month
Direction of desired performance: up ↑

Chart takeaway | OTP surged during the pandemic when shared rides were suspended and traffic eased. As normal activities and shared rides resumed, OTP has decreased.

Although OTP continues to meet target in FY23 to date, performance declined in Q2 (91.8 percent) compared to Q1 (92.9 percent). One of the key strategies used by MetroAccess to increase on-time pick-up performance is to dynamically adjust the system's scheduling parameters and leverage available taxi and alternative resources when trips are projected late throughout the day. During Q2, shortages of call center staff and supervisors resulted in slower responses to address projected late trips, which contributed to lower on-time performance. The Call Center is onboarding five new Dispatch Supervisors and continues to recruit Dispatch staff.

In addition, there were two system-wide IT outages in Q2 that resulted in the inability to verify that 150+ trips were performed; although this impacted OTP by <0.1 percentage points, it negatively impacted overall performance.

On-time pick-up performance starts with operator availability. If an operator is unexpectedly absent or arrives late, it often results in their route departing late. This initial late departure can cause cascading delays to subsequent trips. In addition, operator call-outs resulted in missed runs (3,230 total FYTD), which limit resources available to deliver service or address trips that are projected to run late. To continue strong performance, service delivery providers are offering financial incentives to operators who work all of their scheduled routes and to operators to work some overtime. Providers also continue to recruit new operators. Finally, MetroAccess has assigned more staff dedicated to monitoring the "Late Board" so that they can make adjustments to trips that are projected to be late.

ELEVATOR AVAILABILITY

● **98.0%** of elevators were available on average, meeting target of at least **97.5%**

On average, about six elevators were out of service for maintenance at any given time in FY23 through Q2. About half of hours out of service were the result of planned capital work to rehabilitate or replace older assets in the system. The remaining outages were attributed to other work such as unit failures, related fixes, or preventive maintenance.

Measure Details: What and Why
Elevator availability measures how often elevators are operating for customers. Elevators are essential in providing equal access to Metrorail. The FY23 target factors in the average number of units expected to be out of service for capital rehabs and replacements and aims to reduce the number of units out of service for other reasons by five percent compared to performance over the past three years.

Elevator Availability against dotted line target
Y: % availability | X: month
Direction of desired performance: ***up*** ↑

Chart takeaway | Metro's investments in rehabilitating and replacing units, conducting preventive maintenance, and quickly responding to outages have enabled strong performance over the past two years.
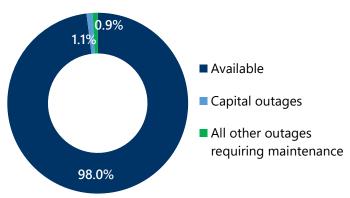

Metro continues to make progress on a 2014 contract to replace 102 elevators—over a third of all units—slated for completion in early 2024. By the end of FY23 Q2, 98 elevators were complete.

With the opening of Silver Line Phase II in November 2022, the number of elevators in the Metro system increased from 279 to 309.

Elevator Availability Breakdown | FY23 Q1-Q2

- ■ Available
- ■ Capital outages
- ■ All other outages requiring maintenance

0.9%
1.1%
98.0%

Chart takeaway | Over half of the hours that elevators were unavailable were due to capital work such as planned rehabilitations and replacements of older assets.

ESCALATOR AVAILABILITY

● **93.0%** of escalators were available on average, meeting target of at least **92.9%**

With the opening of Silver Line Phase II stations in Q2 of FY23, Metro increased the number of escalators in its system from 615 to 643. On average, 45 escalators were out at any given time through FY23 Q2. Performance improved in Q2 because escalators were taken out of service less frequently due to unplanned outages that required maintenance.

Measure Details: What and Why
Escalator availability measures how often escalators are operating for customers. Units are unavailable when they require corrective maintenance or major rehab/replacement. This measure does not count when units are temporarily out of service and only need to be reset. The FY23 target aims to reduce the number of units out of service for maintenance purposes by 10 percent compared to performance over the past three years.
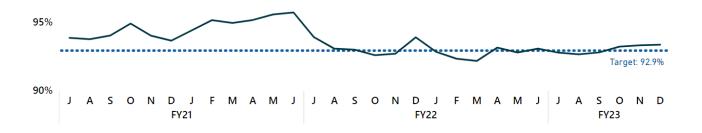
Escalator Availability against **dotted line target**
Y: % availability | X: month
Direction of desired performance: up ↑

Chart takeaway | Escalator availability was high in FY21 due to fewer riders in the system causing wear and tear on the units. As ridership improved in FY22, availability returned to the levels seen before the pandemic. FY23 Q2 saw a slight increase in availability from Q1.
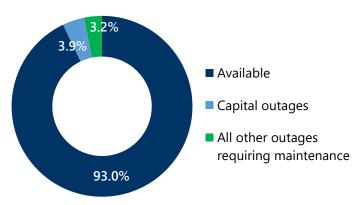

Capital work continued to be the main reason for escalator outages through Q2, accounting for 56 percent of outage hours. This work is necessary to keep the units in a state of good repair and help reduce unplanned breakdowns.

The time units were out of service for maintenance to address or prevent failures decreased between Q1 and Q2 by an average of about 20 percent. Units broke down about 15 percent less frequently and the average time to repair an escalator fell by over 10 percent.

Metro continues its multi-year contract to replace 130 escalators across the system, with 39 completed since April 2021 and another 18 scheduled for completion by the end of FY23. Work on the contract to rehabilitate 86 escalators will also continue, with 37 completed since September 2020 and another 14 to be completed by the end of FY23.

Escalator Availability Breakdown | FY23 Q1-Q2

- Available
- Capital outages
- All other outages requiring maintenance

Chart takeaway | Over half of the hours that escalators were unavailable were due to capital work such as planned rehabilitations and replacements of older assets.

RAIL CROWDING

⬤ **0.6%** of passenger time in crowded conditions through FY23 Q2 (no target in FY23; lower values are better)

Metrorail crowding began to decrease in Q2. Main drivers include the seasonal decrease in ridership of about 10 percent in November and December, and the addition of more train trips. Since June, Metro has gradually re-introduced 7000-series trains into service, enabling 35 percent more trips, increasing capacity, and alleviating the crowding that occurs during rush hour.
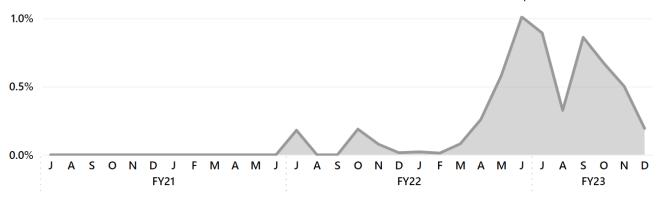
Measure Details: What and Why
Rail crowding evaluates how often customers may be uncomfortable on crowded trains. Crowded conditions are defined as > 100 passengers per car, which is when all seats are occupied and about 35 customers are standing.

Rail Crowding
Y: % passenger time in crowded conditions | X: month
*Direction of desired performance: **down** ⬇*

Chart takeaway | Crowding rose dramatically throughout the second half of FY22 as ridership increased. Crowding has declined since September, likely related to the re-introduction of more 7K trains and a seasonal ridership decline.
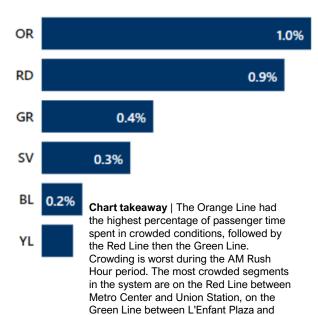

At the beginning of FY23, Metro returned to the pre-pandemic definition of crowding outlined in the WMATA Service Standards: an average of 100 people per railcar. The chart above uses this standard for all months to better show the trend in crowding over time.

Reduced frequencies implemented in response to the October 2021 derailment and removal of the 7000-series trains combined with increases in rail ridership led to more crowding at the end of FY22 and into Q1 of FY23.

Metrorail has added train trips during the busiest times, addressing the most acute periods of crowding. Frequencies have increased as the 7000-series rail cars have been returned to service, which has reduced crowding.

Rail crowding by line | FY23 Q1-Q2

Line	%
OR	1.0%
RD	0.9%
GR	0.4%
SV	0.3%
BL	0.2%
YL	

Chart takeaway | The Orange Line had the highest percentage of passenger time spent in crowded conditions, followed by the Red Line then the Green Line. Crowding is worst during the AM Rush Hour period. The most crowded segments in the system are on the Red Line between Metro Center and Union Station, on the Green Line between L'Enfant Plaza and Navy Yard, and on the Orange/Silver Lines between Rosslyn and Courthouse.

BUS CROWDING

2.3% of passenger time in crowded conditions through FY23 Q2 (no target in FY23; lower values are better)

Metrobus crowding has declined since September 2022, which was at its highest since the start of the pandemic. The decline in crowding mirrors a slight decline in ridership since September related to seasonal trends aligned with the Thanksgiving and Christmas holidays. The most crowding occurs during weekdays between 6 am – 9 am and 3 pm – 7 pm.
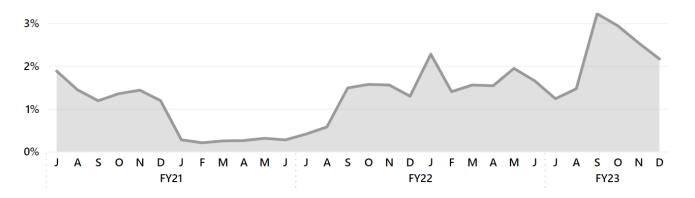
Measure Details: What and Why
Bus crowding evaluates how often bus customers may be uncomfortable on crowded vehicles. Crowding is defined as >40 passengers per bus for a 40-foot bus, which is when all seats are occupied on the vehicle. During weekday rush hours periods, crowding is defined as >120% of seated capacity (48 people) for BRT, framework, and coverage routes.

Bus Crowding
Y: % passenger time in crowded conditions | X: month
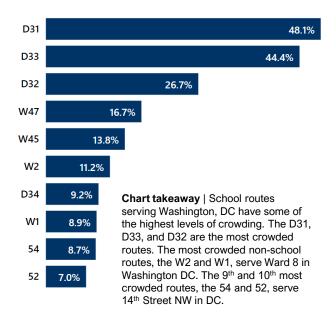*Direction of desired performance: **down** ⬇*

Chart takeaway | Crowding declined in Q2 of FY23 following a peak in September, the highest of any month since the pandemic began.

At the beginning of FY23, Metro returned to the pre-pandemic definition of crowding outlined in the WMATA Bus Service Guidelines: 120% of the seated capacity of a bus (48 passengers in a 40-foot bus) during rush hours for BRT, framework and coverage routes, and 100% of the seated capacity (40 passengers in a 40-foot bus) for all other times and routes. The chart above uses this standard for all months to better show the trend in crowding over time.

Crowding is concentrated on specific routes, with about 30 routes accounting for most of the crowding in the system and the remaining routes seeing very little. When customers do experience crowding, it is often for only a few stops on their journey. The figure to the right shows the top 10 most crowded routes in Q1-Q2 of FY23. Six of the top 10 routes are school routes.

Bus crowding by route | Most crowded routes, FY23 Q2

Route	%
D31	48.1%
D33	44.4%
D32	26.7%
W47	16.7%
W45	13.8%
W2	11.2%
D34	9.2%
W1	8.9%
54	8.7%
52	7.0%

Chart takeaway | School routes serving Washington, DC have some of the highest levels of crowding. The D31, D33, and D32 are the most crowded routes. The most crowded non-school routes, the W2 and W1, serve Ward 8 in Washington DC. The 9th and 10th most crowded routes, the 54 and 52, serve 14th Street NW in DC.

RAIL FLEET RELIABILITY

🔴 **7k fleet: 40,160 miles between failure, missing target of at least 56,500**

7000-series fleet reliability has gradually increased over FY23, as more trains have been returned to service. 7000-series trains made up 28 percent of total rail mileage through Q2 of FY23, and reliability approached target in December. By the end of December, Metro was consistently running 30-32 of these trains, up from six or seven in July.
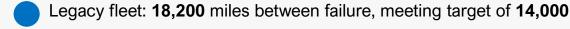
Measure Details: What and Why
Rail fleet reliability is a measure of the quality of service Metro provides customers. It communicates the effectiveness of Metro's railcar maintenance and engineering programs. This measure is also part of required reporting to the National Transit Database (NTD). The FY23 target was set to improve 5 percent over average performance in FY20-FY22 (53,700 miles for the 7000-series and 13,500 for the legacy fleet).
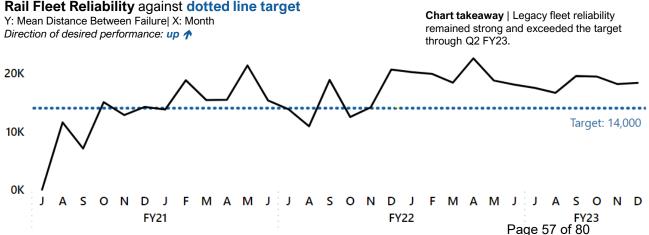
Rail Fleet Reliability against dotted line target
Y: fleet miles between failure | X: month
Direction of desired performance: up ↑

Chart takeaway | The 7000-series railcars have traditionally been the most reliable part of Metro's fleet, consistently traveling more than 50,000 miles between failure prior to the derailment of a 7000-series train in October 2021. After briefly returning in December 2021, railcars have steadily run since June and reliability has improved. This trend is expected to continue as more of the fleet returns to service.

Target: 56,500

J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
FY21 — FY22 — FY23

🔵 **Legacy fleet: 18,200 miles between failure, meeting target of 14,000**

The legacy fleet is comprised of over 500 2000-, 3000-, and 6000-series cars that range from 17 to 40 years old. These cars provided 72 percent of service through Q2 FY23 and continued to deliver their best performance in decades thanks to stronger inspection and maintenance practices, and engineering programs to address failure-prone components.

Rail Fleet Reliability against dotted line target
Y: Mean Distance Between Failure| X: Month
Direction of desired performance: up ↑

Chart takeaway | Legacy fleet reliability remained strong and exceeded the target through Q2 FY23.

Target: 14,000

J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
FY21 — FY22 — FY23

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BUS FLEET RELIABILITY

7,460 miles between failure, missing target of **8,000**

While average performance this fiscal year is below target, reliability has steadily improved over the past six months and met target in December. Results vary by fuel type. The clean diesel fleet, which includes the newest buses, performed at 10,660 miles between failure, followed by the CNG fleet at 8,530 miles between failure and then the hybrid fleet, which are the oldest buses, at 5,960 miles between failure.

Measure Details: What and Why
Bus fleet reliability is a measure of the quality of service Metro provides customers. It communicates the effectiveness of Metro's bus maintenance and engineering programs. This measure is also part of required reporting to the National Transit Database (NTD). The FY23 target was set to improve 5 percent over average performance over the past five years (7,500 miles).

Bus Fleet Reliability against **dotted line target**
Y: fleet miles between failure | X: month
Direction of desired performance: up ↑

Chart takeaway | Bus fleet reliability is seasonal, improving in winter and falling in summer. In FY23, bus reliability fell below 8,000 for the first time in two years but in December recovered back to 8,000.

Bus fleet reliability is seasonal, generally improving in winter because the lower outdoor temperatures prevent the engines from overheating. However, if there are long stretches of below-freezing temperatures, this can cause other issues such as freezing water in the air pressure systems.

Metro's bus maintenance team was able to procure parts to begin the midlife overhaul of the largest group of CNG buses in Fall 2022. This preventive maintenance will allow the buses to continue to be high functioning for several more years and extend their useful life.

In addition to preventive maintenance, Metro continuously analyzes issues and implements process improvements to address them. One example in Q2 was that the newest Clean Diesel buses were running out of Diesel Exhaust Fluid

(DEF) more quickly than previous buses, so the bus maintenance team adjusted their standard service process to check DEF levels each time a bus goes through the service line to prevent in-service breakdowns.

ACCESS FLEET RELIABILITY

● **24,300** miles between failure, meeting target of at least **22,000**

MetroAccess has sustained high levels of reliability in the first half of FY23 by consistently replacing vans at the end of their useful life. Staff plan to continue to replace vans with sedans, which have shown fewer maintenance-related issues. Additionally, MetroAccess will begin adding ramp-equipped minivans to the fleet this fiscal year.

Measure Details: What and Why
Minimizing vehicle breakdowns and maintaining a state of good repair for the fleet enables on-time pick-ups for customers and reduces the likelihood of safety incidents. This measure is also part of required reporting to the National Transit Database (NTD). The FY23 target was set to continue performance levels achieved in FY22.

Access Fleet Reliability against **dotted line target**
Y: fleet miles between failure | X: month
Direction of desired performance: **up ↑**

Chart takeaway | Reliability generally exceeded target during the pandemic, and continues to perform above target this FYTD

Target: 22,000

20K

0K

J A S O N D J F M A M J   J A S O N D J F M A M J   J A S O N D
FY21   FY22   FY23

To sustain strong fleet reliability, Access placed 50 sedans into revenue service in Q2, and is scheduled to receive 23 minivans in Q3. Up to 300 ramp-equipped minivans are scheduled to replace 300 aging vans in FY23 and FY24 . Access also conducts quarterly third-party audits to assess the overall condition of the vehicles, which are maintained by the department's contractors.

6.1 Part 1 Crimes per million passengers, meeting target of no more than 6.5

There are two main types of Part 1 crimes: crimes against persons and crimes against property. The rate of crimes against persons continued to fall, with about 1.1 crimes per million passengers compared to 1.7 the same time last year. The rate of crimes against property is up compared to the same time last year, with 5.0 crimes per million passengers compared to 4.5.

Measure Details: What and Why
This measure evaluates how secure customers and employees are while riding the Metro system. This measure includes incidents that meet a set of criteria determined by the FBI. The FY23 target was set to improve five percent over average performance for FY21-FY22 (6.8 Part 1 crimes per million passengers).

Part 1 Crime Rate against **dotted line target**
Y: Part 1 crime rate | X: month
*Direction of desired performance: **down*** ⬇

Chart takeaway | The crime rate has decreased over the past two years as ridership has increased. The crime rate has been below target each month so far this fiscal year except December. Seasonal and regional economic trends also affect this rate.

Target: 6.5

J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
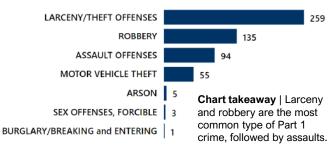FY21   FY22   FY23

There were a total of 552 Part 1 crimes in the first half of FY23: 88 crimes on the bus or at the bus stop, 372 in the rail system, and 92 in Metro parking lots. By far the most common type of crime is theft/robbery (394 crimes), followed by aggravated assault (94 crimes) and motor vehicle theft (55 crimes). Unfortunately, gun violence in the communities that Metro serves spills onto the system. Metro leaders continue to work with our Board and community leaders to address these issues together.

The Metro Transit Police Department works hard to keep the Metro system safe for customers and employees. In Q2 MTPD continued Operation "HelpingHands", a high-visibility program that puts more officers in the Metro system to prevent crime and to interact with our customers. MTPD also initiated a fare enforcement strategy focusing on fare evasion at various locations throughout the rail system.

In Q2 Metro began a NARCAN program, training officers and issuing individual NARCAN doses to treat people experiencing an opioid overdose.

Staff also continued developing partnerships with community resources to help those who are experiencing homelessness or a mental health crisis. MTPD onboarded four clinicians to assist people in crisis or provide other services and referrals as needed.

Number of Part 1 Crimes by type | Q1-Q2 FY23

Type	Count
LARCENY/THEFT OFFENSES	259
ROBBERY	135
ASSAULT OFFENSES	94
MOTOR VEHICLE THEFT	55
ARSON	5
SEX OFFENSES, FORCIBLE	3
BURGLARY/BREAKING and ENTERING	1

Chart takeaway | Larceny and robbery are the most common type of Part 1 crime, followed by assaults.
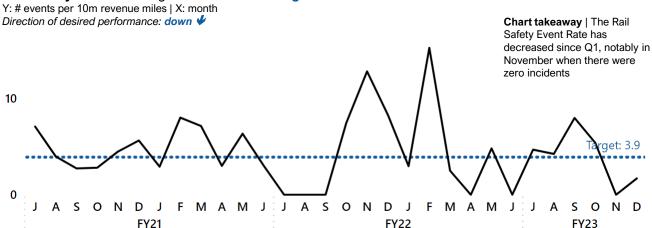
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3.8 Rail safety events per 10 million revenue miles, meeting target of no more than **3.9**

Four major safety events—those meeting the "Major" threshold for reporting to FTA's National Transit Database—occurred in Q2 of FY23, an improvement from the eight incidents in Q1. The twelve incidents total across 31.4 million rail revenue miles in FY23 to date led to a rate of 3.8 safety events per 10 million revenue miles, meeting target.

Measure Details: What and Why
Safety is a core Metro value. This measure is part of Metro's Agency Safety Plan and aligns with the measures in the National Public Transportation Safety Plan published by the Federal Transit Administration. It includes incidents that meet the criteria of a National Transit Database (NTD) major safety event, such as collisions that meet an injury, fatality, substantial damage, or evacuation threshold. The FY23 target was set to improve five percent over average performance over the past five years.

Rail Safety Event Rate against **dotted line target**
Y: # events per 10m revenue miles | X: month
*Direction of desired performance: **down** ↓*

Chart takeaway | The Rail Safety Event Rate has decreased since Q1, notably in November when there were zero incidents

Target: 3.9

J A S O N D J F M A M J   J A S O N D J F M A M J   J A S O N D
FY21   FY22   FY23

Out of the 12 events through Q2 of FY23, four were maintenance vehicle derailments, and four involved persons struck by trains (two of whom were injured and required medical attention). There were three smoke/fire incidents, one of which involved arcing and burning cables. One event was a gas leak.

Out of the four derailments, three occurred during overnight work, and three reported no property damage. Due to their design – including wheel loading, angling, and alignment – work vehicles are significantly more prone to derailments than passenger trains. Metro's car engineering group continues to follow a structured inspection process for all contractor work equipment.

As part of Metro's ongoing implementation of a Safety Management System (SMS), Metro

conducts in-depth investigations to answer why and how safety events occur to identify opportunities for prevention and process improvement. For example, investigation of the arcing and burning cables identified the need to develop an Incident Management Framework and revisions to asset inspection, testing, and maintenance plans.

Note: As of the time this report was published, bus and rail vehicle revenue miles for December are an estimate. Results are subject to slight change once revenue miles are finalized

48.2 Bus safety events per 10 million revenue miles, meeting target of no more than **53.0**

There were 92 major bus-related safety events among the 55.7 million revenue miles traveled during the first half of FY23. The current fiscal year rate is an improvement over the same period last year. There were 87 collisions, three fires, and two incidents that were not collisions but resulted in multiple customer injuries.
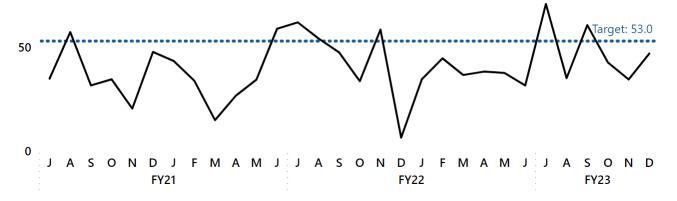
Measure Details: What and Why
Safety is a core Metro value. This measure is part of Metro's Agency Safety Plan and aligns with the measures in the National Public Transportation Safety Plan published by the Federal Transit Administration. It includes incidents that meet the criteria of a National Transit Database (NTD) major safety event. The FY23 target was set to improve 15 percent over average performance over the past five years.

Bus Safety Event Rate against **dotted line target**
Y: # events per 10m revenue miles | X: month
Direction of desired performance: down ⬇

Chart takeaway | The Bus Safety Event Rate has remained below target for the past two and a half years except for a few months where incidents spiked, including July and September of FY23.

J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
FY21 · FY22 · FY23

Target: 53.0

Major bus safety events result in injuries that require at least one person to be transported from the scene for medical attention or result in major damage to the bus or another vehicle.

There were 87 bus collisions in the first half of FY23 that met these criteria. Metro's investigations determined that about two-thirds of these were non-preventable.

Reducing collisions is a high priority for Metrobus. In Q2, Metro collaborated with labor unions to travel out to "hot spots" such as Fort Totten Station, Kenilworth Ave & Jay St NE, and East Capitol St & Benning Road where certain types of collisions such as sideswipes and fixed object collisions occur frequently. These field trips helped to raise awareness of hazards among operators and to strategize safety mitigations for those areas.

Additionally, Metro focused on the proper safety procedures for left turns, and highlighted intersections where buses must turn left to help operators practice increased vigilance at those intersections.

Note: As of the time this report was published, bus and rail vehicle revenue miles for December are an estimate. Results are subject to slight change once revenue miles are finalized
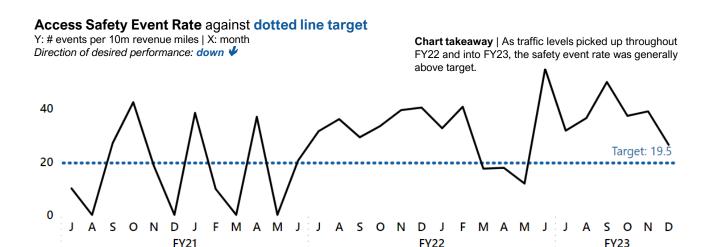
36.8 Access safety events per 10 million revenue miles, missing target of no more than **19.5**

There were 35 major safety events for MetroAccess in the first half of FY23, compared to 34 in the first half of FY22. Thirty-three of the events were collisions, one was a smoking vehicle that needed to be towed, and one was a passenger assistance incident.

Measure Details: What and Why
Safety is a core Metro value. This measure is part of Metro's Agency Safety Plan and aligns with the measures in the National Public Transportation Safety Plan published by the Federal Transit Administration. It includes incidents that meet the criteria of a National Transit Database (NTD) major safety event. The FY23 target was set to improve upon performance levels achieved in FY22.

Access Safety Event Rate against dotted line target

Y: # events per 10m revenue miles | X: month
Direction of desired performance: down ⬇

Chart takeaway | As traffic levels picked up throughout FY22 and into FY23, the safety event rate was generally above target.

Target: 19.5

J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
FY21   FY22   FY23

Although the safety event rate missed target, major safety events are trending downward overall – from eight in September to six in October and November, and down to four in December. Overall safety events have reduced by 16 percent in Q2 compared to Q1.

MetroAccess launched its Incident Free in '23 safety campaign, began broadcasting daily safety messages over the in-vehicle radio in December, and including them on trip manifest coversheets. Monthly campaign themes for Q2 were injury prevention, sideswipe prevention, and combatting fatigue / promoting wellness.

In October, Access conducted its first annual Safety Summit with contractor leadership, safety managers, and operators. During the summit, Metro managers and contractor leadership developed a vision for safety in Access service

and reviewed how to leverage tools like the Access Safety Dashboard to identify training opportunities, monitor incident trends, and better allocate road supervisor resources to respond to incidents in a timelier manner.

In addition, in Q2 Access implemented a 'Ready for Work' checklist that all shift supervisors are required to implement to better prevent fatigued operators from going into service, reducing the likelihood of a preventable collision.

MetroAccess continues to implement a revised Local Safety Committee process with contractors that is more fully aligned with Metro policy to more proactively identify and address risks and increase safety communications to frontline employees.

12.4 Rail customer injuries per 10 million revenue miles, meeting target of no more than **20.6**

There were 39 customer injuries in the rail system through the second quarter of FY23. Thirty-seven of these injuries were slips/trips/falls, and the other two involved passengers struck by trains who required medical attention. Nearly two-thirds of these slips/trips/falls occurred on an escalator.

Measure Details: What and Why
Safety is a core Metro value. This measure is part of Metro's Agency Safety Plan and aligns with the measures in the National Public Transportation Safety Plan published by the Federal Transit Administration. It includes injuries in which customers require immediate medical attention away from the scene. The FY23 target was set to improve 15 percent over average performance over the past five years.

Customer Injury Rate against **dotted line target**
Y: # injuries per 10m vehicle revenue miles | X: month
Direction of desired performance: ***down*** ⬇

Chart takeaway | Rail Customer Injury Rate continues to trend downwards, reaching the lowest rate of the fiscal year in December.

The rate of rail customer injuries to vehicle revenue miles has steadily fallen across calendar year 2022. This is largely thanks to a drop in customer slip/trip/falls during this period, many of which occurred on escalators. Moreover, while injury *counts* in the first two quarters of FY23 are similar to the same period in FY22, ridership was also 45 percent lower at the time, suggesting fewer injuries per riders.

After completing a benchmarking study in the summer of 2022 to research other transit agencies' strategies to reduce slip/trip/falls on escalators, Metro's Elevator/Escalator team, working with Metro's Safety Department, began a pilot signage campaign at selected stations. Metro installed signs with safety guidelines for customers on the ends of six escalators at L'Enfant Station and three at Foggy Bottom, with installation planned for five more stations. Metro

will analyze safety data in future quarters to evaluate the pilot's effectiveness.

Note: As of the time this report was published, bus and rail vehicle revenue miles for December are an estimate. Results are subject to slight change once revenue miles are finalized
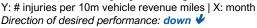
BUS CUSTOMER INJURIES

55.3 Bus customer injuries per 10 million revenue miles, meeting target of no more than **56.4**

There were 106 bus customer injuries in the first half of FY23: 59 slip/trip/falls, 40 related to collisions, and seven other types of injuries. Many of the slip/trip/fall injuries occur due to the motion of the bus or when the bus brakes suddenly to avoid a collision.
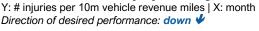
Measure Details: What and Why
Safety is a core Metro value. This measure is part of Metro's Agency Safety Plan and aligns with the measures in the National Public Transportation Safety Plan published by the Federal Transit Administration. It includes injuries in which customers require immediate medical attention away from the scene. The FY23 target was set to improve 15 percent over average performance over the past five years.

Bus Customer Injury Rate against **dotted line target**
Y: # injuries per 10m vehicle revenue miles | X: month
*Direction of desired performance: **down** ⬇*

Chart takeaway | Bus Customer Injury Rate was trending upwards in January through September of 2022. However, in the last quarter (October – December 2022), the customer injury rate declined to be more in line with the rate in 2021.

To improve bus customer safety, Metro actively coaches operators on techniques to avoid hard braking, which is a primary cause of customers falling while on the bus. Metrobus also provides written messaging to operators reminding them to observe boarding customers and wait to move until they are seated or holding on, which prevents customers from falling due to the acceleration of the bus.

In Q2, Metro increased its number of "efficiency rides"– a practice where supervisors ride bus routes and observe operator behavior, both to coach individual operators on safe driving practices and to observe trends in driving behavior for operator-wide educational campaigns. Metro performed 113 efficiency rides in Q2, an 80 percent increase from Q1. Safer driving practices reduce collision-related customer injuries as well as slip/trip/fall injuries due to hard braking or bus motion.

Note: In addition to tracking and reporting injuries, Metro does so for fatalities. There have not been any Metrobus customer or employee fatalities in FY23. However, there have been two collisions in which other vehicles crashed into Metrobuses that were stopped—and in each of these collisions, one person (in the striking vehicle) was killed.

Metro values the safety of every person in the region it serves, working to prevent all collisions and contribute to a safe driving environment on its roadways.

Note: As of the time this report was published, bus and rail vehicle revenue miles for December are an estimate. Results are subject to slight change once revenue miles are finalized

16.8 Access customer injuries per 10 million revenue miles, missing target of no more than **15.6**

Sixteen MetroAccess customers were injured in the first half of FY23, compared to 14 in the first half of FY22. Eleven injuries were related to collisions and five were slips/trips/falls. The injury rate has been trending downward since its peak in September, delivering better-than-target performance in December.

Measure Details: What and Why
Safety is a core Metro value. This measure is part of Metro's Agency Safety Plan and aligns with the measures in the National Public Transportation Safety Plan published by the Federal Transit Administration. It includes injuries in which customers require immediate medical attention away from the scene. The FY23 target was set to improve 15 percent over average performance over the past five years.

Access Customer Injury Rate against **dotted line target**
Y: # injuries per 10m vehicle revenue miles | X: month
Direction of desired performance: down ⬇

Chart takeaway | FY23 through Q2 has a slightly higher injury rate than this time period one year prior.

To address collision-related incidents, MetroAccess continues to update DriveCam units (581 total) and activate in-vehicle behavior recognition and alerting capability. This technology, new to MetroAccess, alerts vehicle operators about unsafe or potentially unsafe behaviors at the time of detection and creates an event clip for coaching.

For assistance-related injuries, MetroAccess is updating a door-to-door service training video with an Occupational Therapist to include additional guidance on working with different mobility aids and properly assisting customers, including de-escalation techniques. In addition, the Occupational Therapist conducted a train the trainer session on assisting customers using sedans. The service also began standardized tracking of operator wheelchair securement certification to ensure training is up to date and doubled the frequency of recertification to twice annually. As of Q2, 1,055 out of 1,064 active operators have current certifications (the other operators will not be placed in service until re-certification / initial certification is completed).

RAIL EMPLOYEE/CUSTOMER ASSAULTS

7.3 Rail customer and employee assaults per 10 million vehicle revenue miles, meeting target of no more than **10**

Five rail employee assaults and 18 customer assaults occurred through Q2 of FY23, compared to nine employee assaults and 18 customer assaults during the same time period in FY22. The assault rate has shown improvement as the fiscal year has progressed.

Measure Details: What and Why
This is a measure of customer and employee security while on the Metro system.
This measure is part of Metro's Agency Safety Plan and aligns with the measures in the National Public Transportation Safety Plan published by the Federal Transit Administration. It includes incidents in which customers and employees are unlawfully physically assaulted and require immediate medical attention away from the scene. The FY23 target was set to improve over FY22.

Rail NTD-Reportable Assault Rate against **dotted line target**
Y: # assaults per 10m vehicle revenue miles | X: month
*Direction of desired performance: **down** ⬇*

Chart takeaway | Overall, assaults are down compared to last fiscal year, although there was an increase in December.

Target: 10.0

J A S O N D J F M A M J | J A S O N D J F M A M J | J A S O N D
FY21 | FY22 | FY23

Customer and employee assaults have decreased since reaching a high point in April 2022. However, this winter has seen multiple incidents where gun violence has spilled onto the system, impacting customers and employees. Metro Transit Police have increased their presence in rail stations where assaults commonly occur. As an additional deterrence measure, Metro has also installed screens at four stations that show a live feed of the cameras that are monitored by police staff. Metro leaders continue to work with our Board and community leaders to address gun violence.

Metro has been advising Rail Station Managers to avoid engaging in potentially unsafe situations, and both Station Managers and Rail Supervisors have been participating in de-escalation training

and learning dispute resolution strategies. To date, all 585 staff have been trained. Counseling services are available to all staff to deal with the stress and trauma of assaults.

Note: As of the time this report was published, bus and rail vehicle revenue miles for December are an estimate. Results are subject to slight change once revenue miles are finalized

BUS EMPLOYEE/CUSTOMER ASSAULTS

12.5 Bus customer and employee assaults per 10 million vehicle revenue miles, missing target of no more than **10**

There were 21 bus customer assaults and three bus employee assaults in the first half of FY23, compared to 12 customer and two employee assaults in the same period of FY22.

Measure Details: What and Why
This is a measure of customer and employee security while on the Metro system.
This measure is part of Metro's Agency Safety Plan and aligns with the measures in the National Public Transportation Safety Plan published by the Federal Transit Administration. It includes incidents in which customers and employees are unlawfully physically assaulted and require immediate medical attention away from the scene. The FY23 target was set to improve over FY22.

Bus NTD Reportable Assault Rate against **dotted line target**
Y: # assaults per 10m vehicle revenue miles | X: month
Direction of desired performance: down ⬇

Chart takeaway | Bus employee/customer assault rate has increased over FY22

In response to an increase in bus operator assaults, Metro adjusted organization procedure for addressing challenging situations with customers on buses to emphasize that bus operators should secure the bus, contact the Bus Operations Control Center, and engage law enforcement when necessary.

Additionally, bus operators who have been involved in an assault are prioritized to receive de-escalation training to prevent reoccurrence. Counseling services are available to all staff to deal with the stress and trauma of assaults.

Note: As of the time this report was published, bus and rail vehicle revenue miles for December are an estimate. Results are subject to slight change once revenue miles are finalized
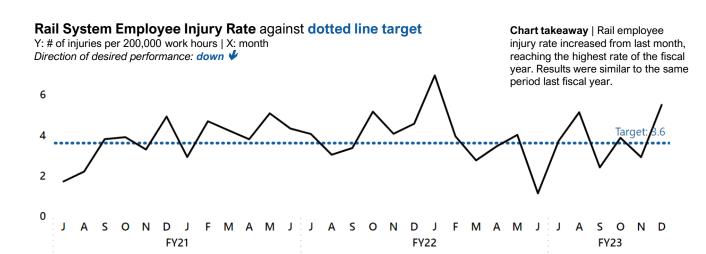
RAIL EMPLOYEE INJURIES

🟠 **3.9** Rail employee injuries per 200,000 work hours, missing target of no more than **3.6**

Rail system employees reported just over 100 injuries through Q2 of FY23. Half of these injuries were reported by operations employees such as rail operators or station managers, while the other half were reported by maintenance and facilities employees.

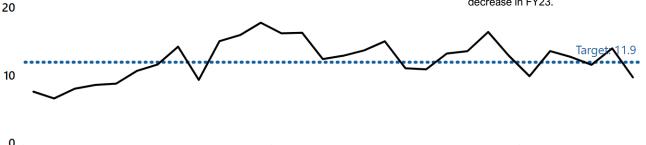**Measure Details: What and Why**
Measuring employee injuries is important in helping maintain a safe environment for Metro's employees at work. This measure includes employee injuries that meet the Occupational Safety and Health Administration (OSHA) reporting criteria. The FY23 target was set to maintain average performance levels achieved over the past five years.

Rail System Employee Injury Rate against **dotted line target**
Y: # of injuries per 200,000 work hours | X: month
*Direction of desired performance: **down** ⬇*

Chart takeaway | Rail employee injury rate increased from last month, reaching the highest rate of the fiscal year. Results were similar to the same period last fiscal year.

Top injury categories reported by operations staff included stress cases and slip/trip/falls. For maintenance staff, top categories were slip/trip/falls and "struck by/against," injuries that largely occur while operating equipment.

Compared to the same period in FY22, stress case counts largely stayed the same during the first two quarters of FY23. On the other hand, assault case counts have fallen 66 percent, from 12 in Q1-Q2 of FY22 to four in the same quarters of FY23.

However, the spike in the injury rate in December 2022 is driven by increases in stress and assault cases, and also correlates with a slight increase in Metro's Part 1 Crime rate that month. There were four employee-reported assault cases

occurred in December – the only four of FY23 to date – with customers physically assaulting or verbally threatening employees. Stress cases often involve employees witnessing adjacent violence or suicide, in addition to experiencing verbal attacks by customers.

Reducing these stress and assault injuries is a top concern for Metro. Addressing the drivers of these cases, such as adjacent crime, is critical. Rail Operations also continues training staff on de-escalation and dispute resolution.

Note: There were delays in processing December 2022 injury report data. December data is an estimate at the time of this report's publish date.

BUS EMPLOYEE INJURIES

● **11.9** Bus employee injuries per 200,000 work hours, meeting target of no more than **11.9**

There were 228 bus employee injury reports in the first half of FY23. This is a 9 percent decrease from the same period last fiscal year. Collision-related injury reports (69) were the most common, followed by stress injury reports (61) and slip/trip/falls (33).

Measure Details: What and Why
Measuring employee injuries is important in helping maintain a safe environment for Metro's employees at work. This measure includes employee injuries that meet the Occupational Safety and Health Administration (OSHA) reporting criteria. The FY23 target was set to maintain average performance levels achieved over the past five years.

Bus Employee Injury Rate against **dotted line target**
Y: # of injuries per 200,000 work hours | X: month
Direction of desired performance: down ⬇

Chart takeaway | The bus employee injury rate steadily increased over FY21, stabilized in FY22, and has begun to decrease in FY23.

At Metro, everyone is responsible for safety and all employees have the right and the responsibility to make recommendations about improving safety. In Q2, Metro supervisors worked with Labor Union 689 to increase the practice of employees proactively identifying hazards and collaborating with management to find solutions.

This initiative is in addition to Metro's standard practice of holding bimonthly local safety committee meetings where employees raise issues and discuss possible solutions. If the risk or hazard is likely to exist in other areas, then the local committees raise it to the bus-wide safety committee so that all employees can be aware of the risk and implement mitigation strategies. For example, bus operators whose routes travel through the Mount Vernon area where there is no street lighting requested high-definition LEDs on articulated buses to improve their vision at night.

Reducing stress injuries is a top concern for Metro. Addressing the drivers of these cases, such as adjacent crime, is critical. Bus Operators receive training staff on de-escalation and dispute resolution.

Note: There were delays in processing December 2022 injury report data. December data is an estimate at the time of this report's publish date.

APPENDIX:

PERFORMANCE MEASURE DEFINITIONS
Included in this PDF

PERFORMANCE MEASURE DATA TABLES
Included as a new downloadable spreadsheet file under the "Performance" section of the Public Records page at wmata.com

PERFORMANCE MEASURE DEFINITIONS

RIDERSHIP

How is it measured?

Metrorail passenger trips + Metrobus passenger boardings + MetroAccess passenger trips

Ridership is a measure of total service consumed and an indicator of value to the region. Drivers of this indicator include service quality and accessibility.

What does this mean and why is it key to our strategy?

Passenger trips are defined as follows:

- **Metrorail** reports passenger trips. A passenger trip is counted when a customer enters through a faregate. In an example where a customer transfers between two trains to complete their travel one trip is counted.

- **Metrobus** reports passenger boardings. A passenger boarding is counted via the onboard Automatic Passenger Counter (APC) when a customer boards a Metrobus. In an example where a customer transfers between two Metrobuses to complete their travel two trips are counted. Metrobus totals also include shuttles* to accommodate rail station shutdowns and other track work, but does not include shuttles operated by a contracted vendor.

- **MetroAccess** reports passenger trips. A passenger traveling from an origin to a destination is counted as one passenger trip. Passengers include customers, personal care attendants (PCAs), and companions in accordance with ADA regulations.

*Metro does not include bus shuttle passenger trips in its budget or published ridership forecasts.

CUSTOMER SATISFACTION

How is it measured?

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

What does this mean and why is it key to our strategy?

Surveying customers about the quality of Metro's service delivery provides a mechanism to continually identify those 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 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.

METRORAIL SERVICE MISSED

How is it measured?

Percentage of service missed = Number of revenue service stops missed ÷ Number of scheduled revenue stops

What does this mean and why is it key to our strategy?

Missed Service monitors Metro's "guarantee of service"—whether Metro is providing all the service that was scheduled and committed to. It helps to offer more clarity on the relative magnitude of various operational issues on daily rail operation, for example, operator or railcar shortage, and incident response strategy. It is an important indicator of transit service quality and productivity. Those missed stops can have a negative impact on the perceived reliability of rail service and can result in longer customer wait times, missed transfers, etc. which lead to customer inconvenience and dissatisfaction.

METROBUS SERVICE MISSED

How is it measured?

Percentage of service delivered = Number of trips missed ÷ Number of scheduled trips

What does this mean and why is it key to our strategy?

Metrobus service missed tells us whether Metro is meeting its level of service that we have committed to our customers through the budget and scheduling process. It is also a key measure of reliability; when trips are missed, customers experience much longer wait times than expected and it reduces the overall confidence in the system. Monitoring whether service was delivered helps Metro understand where there are issues with staffing, planning and scheduling, bus availability and reliability, and service interruptions.

METROBUS PREDICTION AVAILABILITY

How is it measured?

Percentage prediction availability = Number of trips with real time prediction made available in GTFS-RT ÷ Number of scheduled trips

What does this mean and why is it key to our strategy?

Prediction availability communicates how likely it is that Metro is using real time location information to generate the predicted arrival times of buses that customers see on BusETA or other third-party trip planning applications. When real time location information is not available, applications will either provide no prediction information for the bus or substitute the scheduled arrival time. Both of these alternatives are far less reliable than real time data and negatively impact the customer experience through extended wait times and lack of clarity on when their next bus will arrive.

Predictions can be unavailable for two main reasons:

1. Missed Trips: No real time location information was provided because service was cut for the scheduled trip

2. Bus Communication Failure: No real time location information was provided because of a technical issue with the bus. In these cases, service is provided, but customers do not have real time location information to track it.

METROBUS PREDICTION ACCURACY

How is it measured?

Percentage prediction accuracy = Number of accurate predictions ÷ Number of predictions

What does this mean and why is it key to our strategy?

Bus Prediction Accuracy measures the quality of Metro's real time arrival prediction data that customers use to plan their trips through BusETA and other third-party trip planning applications. The predictions are compared to the actual time the bus arrived at the stop according to Metro internal records.

Which predictions are evaluated?

To make the measure as customer focused as possible, only the most meaningful predictions are evaluated. Buses begin making predictions well before they begin service on a particular trip and can make predictions for stops hours 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, predictions made well in advance are thrown out, and only predictions made within 30 minutes of the bus's arrival are evaluated.

What is considered accurate?

Bus Prediction Accuracy is measured by comparing the predicted time of arrival to the actual time of 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 for the bus. Therefore, the measure creates a range of allowable error within which a prediction is considered accurate, and if the prediction falls outside that range, it is considered inaccurate.

The accuracy range follows two key principles:

1. **As the bus gets closer to the stop, predictions should become more accurate.** Errors have greater customer impact when the bus is closer to the stop. Customers are more likely to use these predictions and a two minute difference has a greater impact if the bus is five minutes away than when the bus is 25 minutes away

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

Using these principles, the following time ranges are used to determine whether a prediction is accurate:

Time before arrival	Lower Bound (Early)	Upper Bound (Late)
0-3 mins	-1 min	1 min

40

3-6 mins	-1.5 mins	2 mins
6-12 mins	-2.5 mins	3.5 mins
12-30 mins	-4 mins	6 mins

Prediction Accuracy is the number of predictions that fall within these ranges out of all predictions made within 30 minutes of a bus's arrival.

METRORAIL CUSTOMER ON-TIME PERFORMANCE (MYTRIPTIME)

How is it measured?

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

What does this mean and why is it key to our strategy?

Rail Customer On-Time Performance (OTP) communicates the reliability of rail service, which is a key driver of customer satisfaction. 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. 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® card to enter the system, to the time when the SmarTrip® card is tapped 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.

METROBUS ON-TIME PERFORMANCE

How is it measured?

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

"Timepoints" are major stops on a bus route that are used to create bus schedules. Note that this metric only includes service delivered and does not include missed trips.

What does this mean and why is it key to our strategy?

Bus on-time performance (OTP) communicates the reliability of bus service, which is 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.)

METROACCESS ON-TIME PICKUP PERFORMANCE

How is it measured?

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

What does this mean and why is it key to our strategy?

This indicator 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.

ELEVATOR / ESCALATOR AVAILABILITY

How is it measured?

In-service percentage = Hours in service ÷ Operating hours

> Hours in service = Operating hours – Hours out of service

> Operating hours = Operating hours per unit x number of units

What does this mean and why is it key to our strategy?

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.

Availability is the percentage of time that Metrorail escalators or elevators in stations and parking garages are in service during operating hours.

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.

METRORAIL CROWDING

How is it measured?

Percentage of passenger time spent on vehicles exceeding crowding guidelines = Number of crowded passenger minutes ÷ Total number of passenger minutes

What does this mean and why is it key to our strategy?

Crowding is a key driver of customer satisfaction with Metrorail service. Crowding measures the percentage of passenger time spent on vehicles that exceed crowding guidelines per WMATA service standards of 100 passengers per car. In FY23, WMATA returned to the pre-pandemic definition of crowding.

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.

METROBUS CROWDING

How is it measured?

Percentage of passenger time spent on vehicles exceeding crowding guidelines = Number of crowded passenger minutes ÷ Total number of passenger minutes

What does this mean and why is it key to our strategy?

Crowding is a key driver of customer satisfaction with Metrobus service. Crowding measures the percentage of passenger time spent on vehicles that exceed crowding guidelines per WMATA service standards of 120% of seated capacity during peak for BRT, framework, and coverage routes, 100% off peak and at all times on commuter routes. In FY23, WMATA returned to the pre-pandemic definition of crowding.

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.

Note: Prior to the adoption of the Metrobus Service Guidelines in December 2020, crowding guidelines were 120% of seated load for all services except express bus during peak.

METRORAIL FLEET MEAN DISTANCE BETWEEN FAILURE

How is it measured?

Mean Distance Between Failure (MDBF) = Total railcar revenue miles ÷ Total number of failures occurring during revenue service

What does this mean and why is it key to our strategy?

The number of miles traveled before a railcar experiences a failure. Some car failures result in inconvenience or discomfort, but do not always result in a delay of service (such as hot cars).

Mean Distance Between Failure communicates the effectiveness of Metro's railcar maintenance and engineering program. Factors that influence railcar reliability are the age and design of the railcars, the amount the railcars are used, the frequency and quality of preventive maintenance, and the interaction between railcars and the track.

METROBUS FLEET MEAN DISTANCE BETWEEN FAILURE

How is it measured?

Mean Distance Between Failures (MDBF) = Total bus mileage ÷ Total number of bus mechanical failures occurring during revenue service

In other words, the average number of miles a bus drives before it experiences a mechanical failure that interrupts revenue service.

What does this mean and why is it key to our strategy?

Mean Distance Between Failures is used to monitor trends in vehicle breakdowns that cause buses to go out of service in order to plan corrective actions. Factors that influence bus fleet reliability include vehicle age, quality of maintenance program, original vehicle quality, and road conditions such as inclement weather and road construction.

METROACCESS FLEET MEAN DISTANCE BETWEEN FAILURE

How is it measured?

Mean Distance Between Failures (MDBF) = Total MetroAccess vehicle odometer miles ÷ Total number of mechanical failures occurring during revenue service

What does this mean and why is it key to our strategy?

The number of total miles traveled before a mechanical breakdown requiring the vehicle to be removed from service or deviate from the schedule

Mean Distance Between Failures is used to monitor trends in vehicle breakdowns that cause vans or sedans to go out of service and to plan corrective actions. Factors that influence MetroAccess fleet reliability include vehicle age, quality of maintenance program, original vehicle quality, and road conditions affected by inclement weather and road construction.

PART 1 CRIME RATE

How is it measured?

Part I Crime Rate = Number of Part 1 Crimes ÷ (Number of passengers ÷ 1,000,000)

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

What does this mean and why is it key to our strategy?

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 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 a non-WMATA location but involving WMATA or MTPD property.

This measure provides an indicator of the perception of safety and security customers experience when traveling the Metro system. Increases or decreases in crime can influence whether customers feel safe in the system.

SAFETY EVENT RATE

How is it measured?

Safety Event Rate = Number of safety events that meet "major event" National Transit Database (NTD) reporting criteria ÷ (Total vehicle revenue miles ÷ 10 million)

In other words, the number of reportable safety events per 10 million revenue miles

What does this mean and why is it key to our strategy?

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Safety events that are included in this measure are: collisions, fires, derailments, hazardous material spills, acts of God, and a few other uncommon safety occurrences.

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

CUSTOMER INJURY RATE

How is it measured?

Customer injury rate = Number of customer injuries reported to the National Transit Database (NTD) ÷ (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

What does this mean and why is it key to our strategy?

The customer injury rate is based on National Transit Database (NTD) Reporting criteria. This measure includes customers injured during Metro operations when 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. The customer injury rate is an indicator of how well the service is meeting this safety objective.

CUSTOMER / EMPLOYEE FATALITY RATE

How is it measured?

Fatality Rate = Number of fatalities reported to the National Transit Database (NTD) ÷ (Total vehicle revenue miles ÷ 10 million)

In other words, the number of fatalities per ten million miles driven while vehicles are in revenue service

What does this mean and why is it key to our strategy?

The Federal Transit Agency's Public Transportation Agency Safety Plan identified the fatality rate as a key safety performance measure. Reducing the number of fatalities is a top priority for all transit agencies. This measure includes customer and employee fatalities due to Metro operations and excludes those from suicide, homicide, trespassers, illnesses, drug overdoses, or other natural causes.

NTD-REPORTABLE ASSAULT RATE

How is it measured?

NTD-Reportable Assault Rate = Number of employee and customer assaults reported to the National Transit Database (NTD) ÷ (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

What does this mean and why is it key to our strategy?

The Federal Transit Administration criteria for reporting assaults is any unlawful physical assault upon an employee or customer of Metro while on Metro property that results in immediate medical attention away from the scene. These are different criteria than those used by OSHA in the employee injury rate.

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

EMPLOYEE INJURY RATE

How is it measured?

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

What does this mean and why is it key to our strategy?

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) receives medical treatment 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.