Safety and Operations Committee

Board Information Item III-A

FY23 Metro Performance Report

Washington Metropolitan Area Transit Authority
Board Action/Information Summary

○ Action ● Information	Document Number: 205584	Resolution: ○ Yes ● No

Presentation Name:

FY2023/Q4 Metro Performance Report

Project Manager:

Laura Moeini

Project Department:

Performance, Data, and Research

Purpose/Key Highlights:

Inform the Board of Metro's FY2023 performance from July 2022 – June 2023 on safety and service reliability key performance indicators (KPIs), several included in Goal 1: Service Excellence of Metro's Strategic Transformation Plan.

Key Highlights:

- Ridership increased by about 40 percent in FY23 as compared to FY22. FY23 Q4 brought the highest ridership since the start of the pandemic, with 753,000 trips on an average weekday (Tue-Thurs) and a record 809,000 trips on June 6

- Metrorail saw its highest levels of customer satisfaction in 10 years, driven largely by more frequent service and increased police presence

- Thirteen of the 26 key performance indicators (KPIs) included in the Metro Performance Report met target. Four that didn't meet target are trending in the right direction, comparing Q3 to Q4 performance

Interested Parties:

There are no Interested Parties in this matter.

Background:

The 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; crime rate; and elevator and escalator availability. The report includes four safety measures that align with the safety performance measures established in the Federal Transit Administration's National Public Transportation Safety Plan, all broken out by mode: customer injury rate, major safety event rate, customer and employee assault rate, and employee injury rate. This report continues efforts since 2010 to transparently report performance for key operational measures.

The report compares performance for the period of July 2022 through June 2023 to the targets that Metro set for the fiscal year, which were developed following guidance from the Federal Transit Administration. The targets for 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 use multiple datasets to monitor safety activities that impact employees and the riding public. Within Operations and Infrastructure, staff actively track these measures 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. The KPI framework will be adjusted in FY2024 to align with the new mission, vision, goals, and objectives in Metro's Strategic Transformation Plan, Your Metro, the Way Forward.

Discussion:

Metrorail customer satisfaction was 84 percent in Q4 FY2023, a 15-percentage point increase in satisfaction since Q4 FY2022 and meeting its 79-percent target, which was the average satisfaction over the past five years. This large increase reflects improvements in service frequency and service reliability: Metro increased trains in service by 73 percent from July 2022 to July 2023, and average wait times for customers fell 43 percent during this period. Metrobus customer satisfaction ended the fiscal year at 71 percent, below the target and five-year average performance level of 76 percent. Bus's rate remained statistically consistent with the rest of FY23 and in line with rates seen pre-pandemic. MetroAccess customer satisfaction also stayed consistent across FY23, ending the year at 77 percent of customers satisfied with their last trip.

In FY2023, customers made 199.7 million trips using Metrorail, Metrobus, and MetroAccess, a roughly 40 percent increase from the same period in FY2022. About

51 percent of trips occurred on Metrobus, exceeding Metrorail ridership by 6.7 million riders. On Metrorail, the new Silver Line Phase II—which opened in November 2022 —served more than 1.9 million riders in through FY2023. Potomac Yard, Metro's newest rail station, saw approximately 95,000 entries and exits since its opening on May 19, 2023.

Metrorail customers received 96.3 percent of scheduled service in FY2023, better than the target of 94 percent. An average of 90 percent of trips were completed on-time (within expected wait and train running times), which was below the target of 92 percent. Despite this, the daily average of 7000-series trains in service increased from an average of eight per day in June 2022 to over 50 in June 2023, and 93 percent of customer trips were faster. Railcar reliability for Metro's legacy fleet well-met target during this period, and traditionally strong 7000-series fleet reliability continued to return to normal levels as more of the fleet returned to service. System-wide, crowding remained concentrated during rush periods at several downtown locations on the Red Line. Elevator availability met target, with 98 percent of the 320 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). In FY2023 an average of 41 of the 647 escalators in the system were out of service at any given time; scheduled capital rehabilitations or replacements accounted for about 23 of the average 41 units down.

Metrobus customers received 98.6 percent of scheduled service in FY2023, with real-time information provided for close to 94 percent of trips. In December, staff implemented upgrades that removed "ghost buses" from the busETA application. This meant that in the second half of FY2023, customers only saw data for trips that were known to be running. At bus stops, displays were corrected to keep prediction information on-screen for late buses until they arrive. These screens also started displaying crowding statuses beginning in May. When bus arrival predictions were indeed available to customers, over 86 percent were accurate, with accuracy improving the closer buses neared their stops. In FY2023 Metro focused on an intensive bus operator recruitment effort, with 417 new operators hired and starting to drive during the fiscal year.

Of all Metrobus service delivered in FY2023, 77 percent of buses were on-time, shy of the 78-percent target. Bus On-Time Performance (OTP) fluctuated this year, hitting its lowest points in the fall and spring. OTP is closely correlated with traffic patterns, and average speeds in the District of Columbia declined up to three percent from January to June of 2023. In Q4, Metro focused on the collaboration between its street operations team and the bus control center to address bus bunching in real time, aiming to spread out service to reduce wait times and crowding for customers. Additionally, Metro piloted a project to improve customer information about bus departures by installing electric departure signs at Braddock Road Station.

About 92.7 percent of MetroAccess trips were picked-up within the 30-minute arrival window, meeting the target of 92 percent or higher. MetroAccess dedicated additional staff toward monitoring and adjusting trips that are projected to be late, helping to decrease the rate of "excessively late trips" by from 1.9 percent in Q2 to 1.5 percent

in Q3 and Q4. Fleet reliability also remains strong, with vehicles traveling over 25,000 miles between failures that result in service interruptions.

There were 7.7 Part 1 crimes per million customers in FY2023, missing target of no more than 6.5. Fifty-six percent of these crimes occurred in the rail system, 29 percent in Metro parking lots, and 12 percent on buses or at bus stops. Larceny crimes accounted for 38 percent of all Part 1 crimes in FY2023, followed by robbery (24 percent) and motor vehicle theft (22 percent). Parking lot crimes more than tripled in Q3 compared to Q2, with motor vehicle thefts going up fivefold. The Metro Transit Police Department (MTPD) is working to reduce crime through increased police presence and camera use, in addition to community partnerships and compassionate outreach. Arrests and citations have more than doubled since last year thanks to increased patrols. In addition, MTPD's new Crisis Intervention Specialists are regularly interacting with customers in crisis or providing other services and referrals as needed. From February to June 2023, Metro's Part 1 crime rate fell by 20 percent.

Out of the 200 million trips made by customers this fiscal-year-to-date, 317 resulted in injuries that required medical attention. About 60 percent of these were due to slips, trips, and falls and nearly a third were related to collisions. Most of the injuries were on Metrobus, with slips, trips, and falls related to hard braking by operators in attempts to avoid collisions. To help address these issues, Metro created a working group to analyze and address incident trends using its DriveCam system, which records via camera possible risky behaviors while operators are driving. All three modes—Metrobus, Metrorail, and MetroAccess—were better than target for customer injury rates. The rate of safety events on Metrobus met target, but both Metrorail and MetroAccess missed their safety event targets. Major safety events for MetroAccess trended downward, falling from 12 events in Q3 to six in Q4; Metrorail's safety event rate ended the fiscal year meeting target in June 2023.

About 747 Metrobus and Metrorail employee injuries occurred during in 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. Both Metrobus and Metrorail employee injury rate missed target for the fiscal year. Both targets were set to improve over average performance across 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. Ninety percent of assaults on Metrobus occurred between customers as opposed to involving employees; for rail, 75 percent of assaults occurred between customers.

Funding Impact:

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

Previous Actions:

October 2022 – Presentation of Q1-Q4 FY2022 Metro Performance Report
December 2022 – Presentation of Q1 FY2023 Metro Performance Report
February 2023 – Presentation of Q1-Q2 FY2023 Metro Performance Report
May 2023 – Presentation of Q1-Q3 FY2023 Metro Performance Report

Next Steps:

December 2023 – Presentation of Q1 FY2024 Service Excellence Report

Recommendation:

Information Only

FY23 Metro Performance Report

REPORT SUMMARY

Safety & Operations Committee
September 28, 2023

Strategic Transformation Plan:

Guides long term strategy and day-to-day decision making of Metro over the next five + years

Your Metro, The Way Forward
Strategic Transformation Plan

Washington Metropolitan Area Transit Authority
February 2023

STP Goals
Our priorities to achieve our vision

- Service Excellence
- Talented Teams
- Regional Opportunity and Partnership
- Sustainability

Provides performance framework for rebranded quarterly FY24 **Service Excellence Report**

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SERVICE EXCELLENCE REPORT
FY2024

Summary

⭐ Highest levels of rail customer satisfaction in 10 years as riders respond to frequent service

⏩ 98% of rail trips got faster in FY23

👥 System-wide ridership increased about 40% in FY23 compared to FY22

👮 Part 1 Crime rate fell 20% from February to June

See the full FY23 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.

Ⓜ metro

Metro **Performance Results** | FY23

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?*
Customer Satisfaction (Q4 result)	Rail	●	✔
	Bus	●	
	Access	●	✔
Ridership		●	✔
On-time Performance	Rail	●	
	Bus	●	
	Access	●	
Missed Trips	Bus	●	
Prediction Availability	Bus	●	
Part 1 Crime		●	✔
Safety Events	Rail	●	
	Bus	●	
	Access	●	✔
Customer Injuries	Rail	●	
	Bus	●	
	Access	●	✔

APPENDIX WITH ADDITIONAL MEASURES

Measure		FY23 target met?	Trending in the right direction?*
Missed Service	Rail	●	
Prediction Accuracy	Bus	●	
Crowding	Rail	●	✔
	Bus	●	
Elevator Availability		●	
Escalator Availability		●	✔
Assaults	Rail	●	✔
	Bus	●	✔
Employee Injuries	Rail	●	
	Bus	●	

Trending in the right direction marked when FY23 Q4 performance improved from FY23 Q3

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Highest Metrorail customer satisfaction since 2013, driven by more service (and lower wait times for trains) and increased police presence

● **Rail** Customer Satisfaction
84% of customers satisfied in Q4

Target: 79%

Q3	Q4	Q1	Q2	Q3	Q4
68%	69%	73%	79%	79%	84%
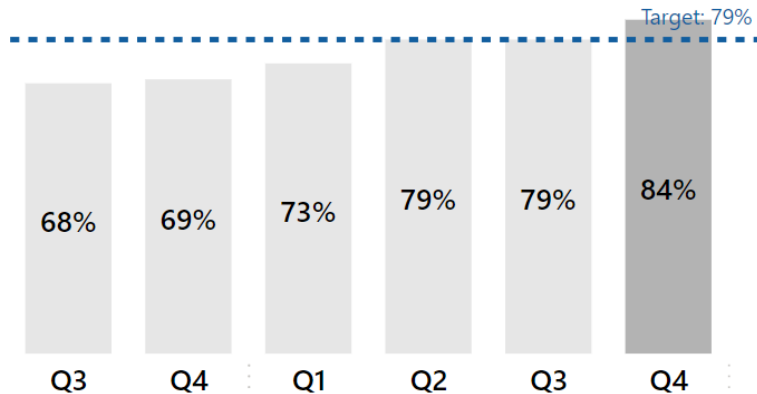
15-point increase since Q4 last year

Average wait times fell **43%** over FY23

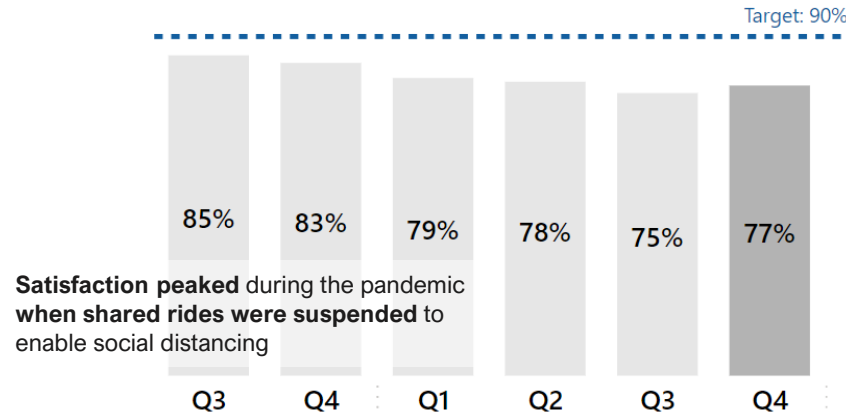Average number of officers in the system **doubled** over FY23

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

Metrobus and MetroAccess customer satisfaction remained steady in FY23 at levels similar to 2017-2019

● **Bus** Customer Satisfaction
71% of customers satisfied in Q4

Target: 76%

64%	69%	74%	75%	73%	71%
Q3	Q4	Q1	Q2	Q3	Q4
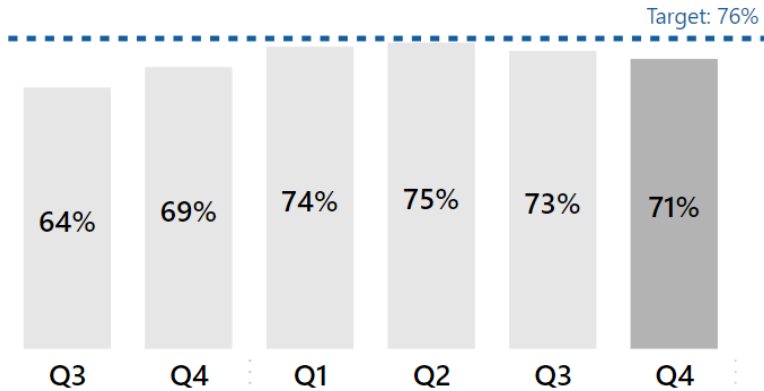
Numerous initiatives launched, including **courtesy stops**, **holding buses** for arriving trains, and **seats at bus stops**

● **MetroAccess** Customer Satisfaction
77% of customers satisfied in Q4

Target: 90%

85%	83%	79%	78%	75%	77%

Satisfaction peaked during the pandemic **when shared rides were suspended** to enable social distancing

Q3	Q4	Q1	Q2	Q3	Q4

MetroAccess providing drivers with customer service tips focusing on **Promptness, Politeness, Professionalism, and Personalization**

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● **Target met** ● **Target at risk** ● **Target missed**
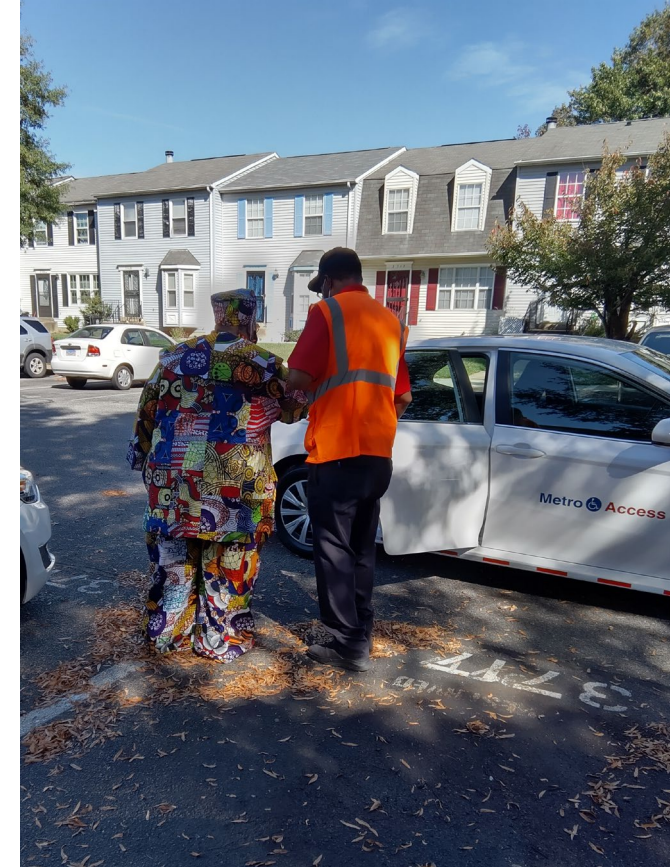
FY23 Q4 brought the highest ridership since the start of the pandemic, with 753K trips on an average weekday (Tue-Thurs) and a record 809,000 trips on June 6. New record set on September 20th with over 832,000 trips

All ridership | Metrorail | Metrobus

MetroAccess ridership

Note: Prior to January 2023, Metrorail ridership only reported tap ridership, which understated the total number of riders. The completion of the installation of new faregates in January 2023 enabled Metro to report all (tap and non-tap) ridership.

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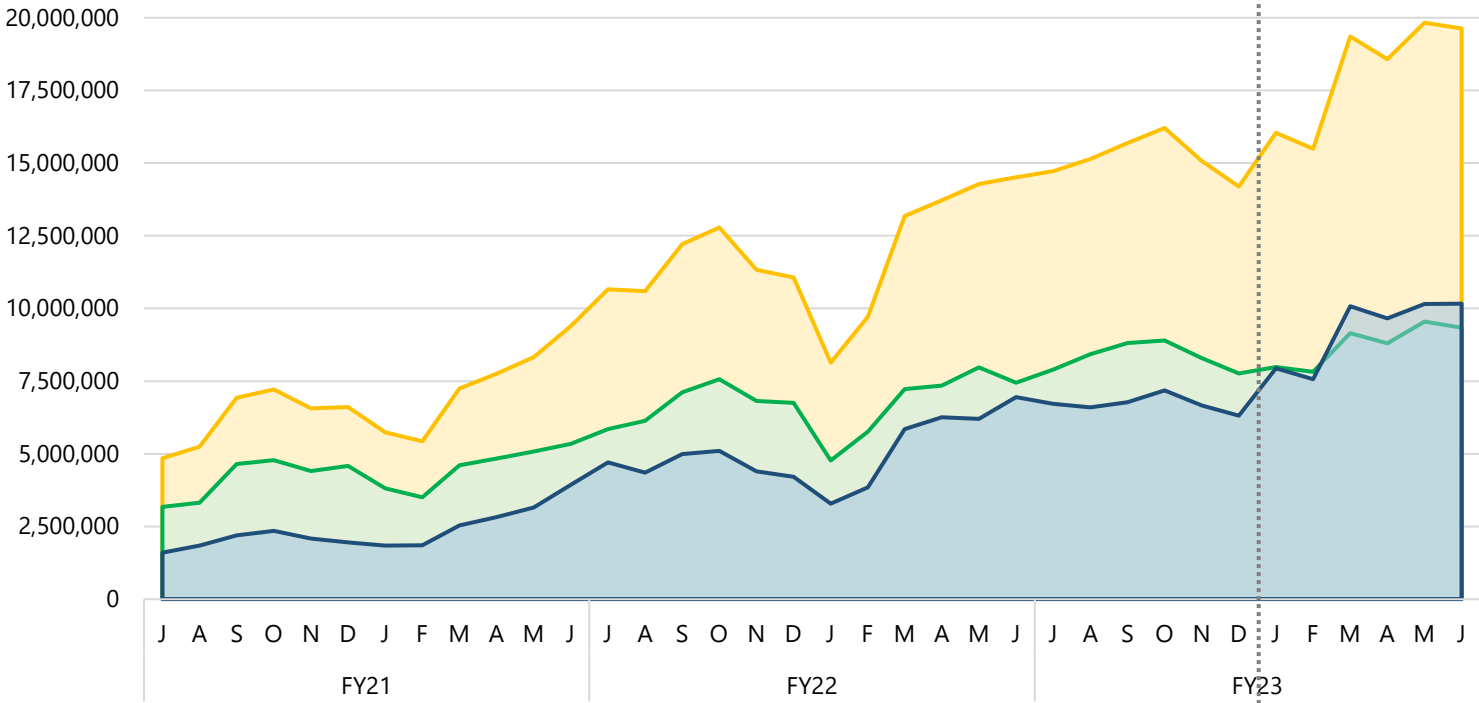
Ridership highlights

Silver Line Extension
Over **2.8 mil** passengers since November 15 opening
Almost 1 mil trips to/from Dulles Airport

Yellow Line Bridge
Over **3.75 mil** passengers since Sunday May 7 opening

Potomac Yard
270k entries and exits since May 19 opening

Pride Parade
323k rail entries and **235k** bus boardings, the highest Saturday for Bus and Rail since the pandemic

Fourth of July
414k total rail entries, the highest Jul 4 rail ridership since 2015

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Good frequencies all day, every day have Metro prepared for more ridership this fall

- Current service plan has **capacity for over 1 million daily trips** across bus and rail

- Full-time return of federal riders would **add 77,000 Metrorail trips and 18,000 Metrobus trips** on average weekday

- 2-3 day a week return of federal employees would **increase annual rail ridership by 8%** (9.7 million trips), **bus ridership by 2%** (2.2 million trips)

- Staff continue to monitor crowding

Rail service as of September 11, 2023
Peak service increases capacity by 20%

Line(s)	Peak Headway	All Day Headway
RD	5 min	6 min
OR	10 min	10 min
SV BL	10 min	12 min
GR YL	6 min	8 min

Bus is running full FY24 service plan with 38 lines in the Frequent Service Network

21 every **12** minutes

17 every **20** minutes

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Metrorail service increases over FY23 have resulted in faster trips, despite on-time performance missing target

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

- Added service **11 times** in FY23. Frequent service adjustments and new operators introduce challenges to operational stability and reliability

- Top **four disruptions**: customer incidents (including sick passengers and trespassers), railcars, signaling, rail operations

Percentage of Rail Customer Trips On-Time
FY21 through FY23
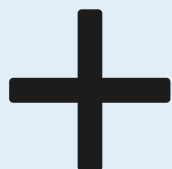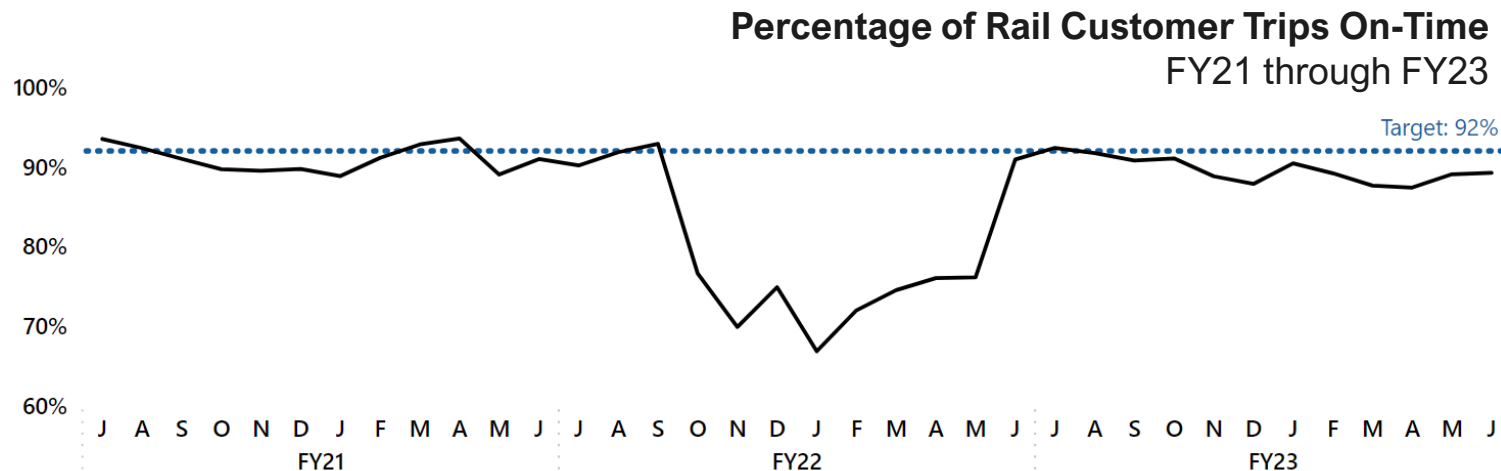
+ 73% more trains compared to Q4 of FY22
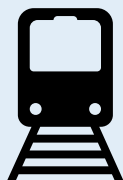
🚆 **98% of trips faster** today compared to July 2022

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● Target met   ● Target at risk   ● Target missed

FY23 Metrobus on-time performance was similar to other bus services in the region. Traffic congestion worsened 3% in the last six months, lowering OTP

77% of bus service on-time, missing target of no less than **78%**

- In FY23 Metro increased Saturday service on the following routes: F14, K12, R4, R12, T14, V12, and V14. Metro also restored weekday service on the D2 and K9, and extended the routes for the M4 and X2

- Focus on 10 most impactful lowest-performing routes

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

Target: 78%

J A S O N D J F M A M J | J A S O N D F M A M J J | J A S O N D J F M A M J
FY21 — FY22 — FY23
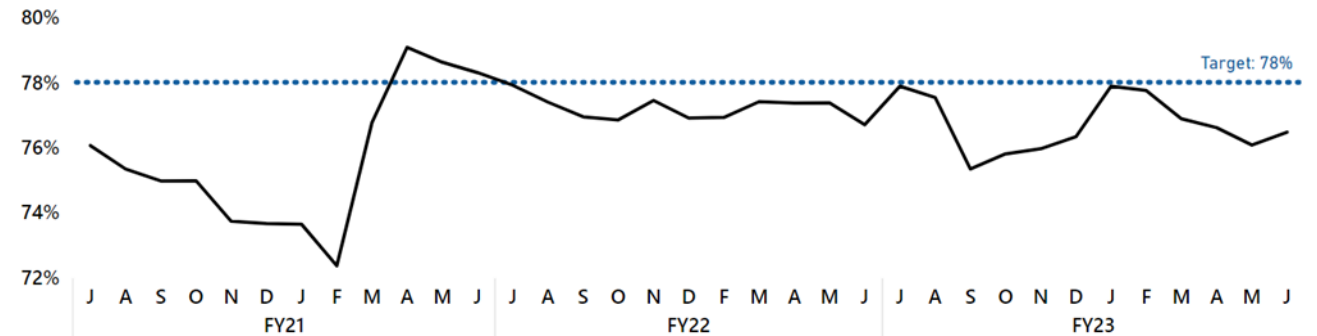
Launched bus network redesign. Over **20k interactions** with customers took place at over **60 events**

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

Enforcing bus lanes improves Metrobus speeds and reliability

Metrobus Speeds
Clear Lanes Routes
June 2023
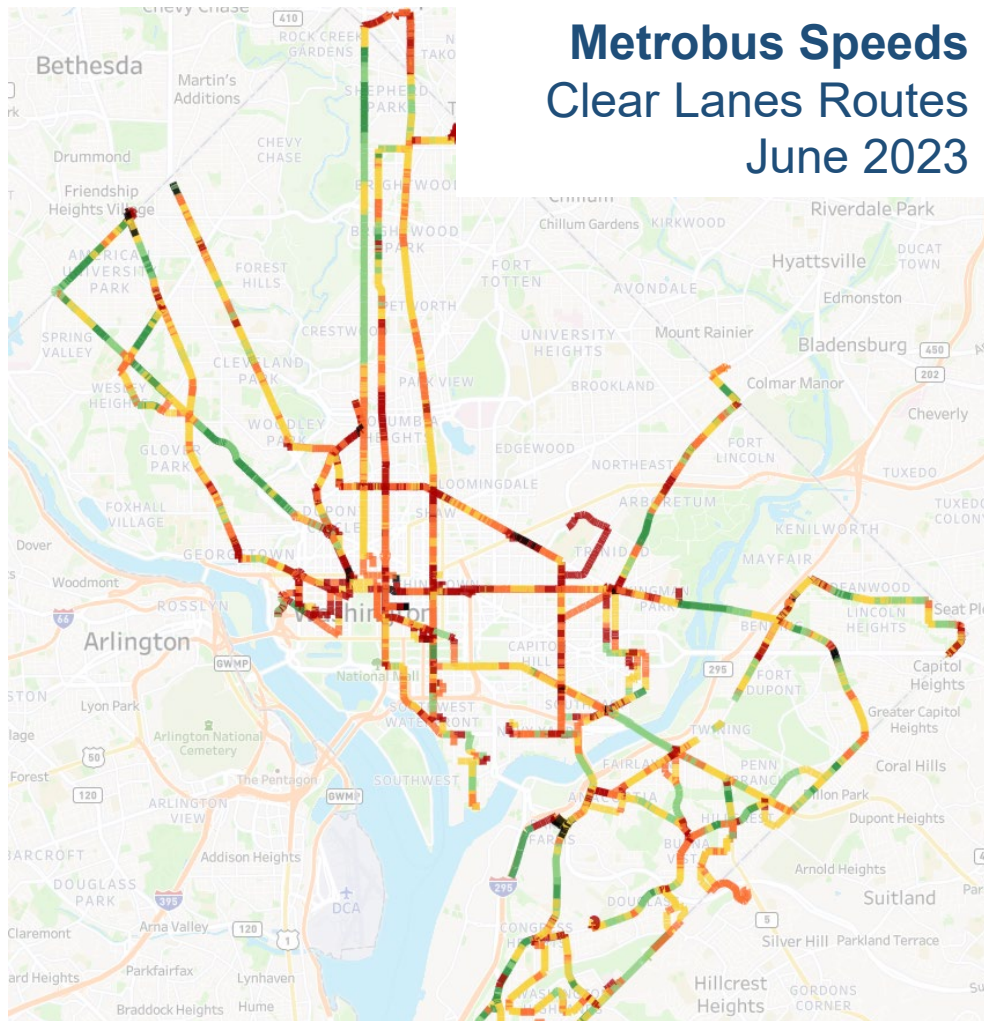
Clear Lanes partnership with the District to make 17+ lane miles of bus lanes more effective and 1,400+ bus stops safer for Metrobus customers

- Automated cameras installed on 140 buses
- Warning period underway

Anticipated Outcomes

- **Faster and more reliable buses**
  7 to 31 percent improvement in bus speeds in bus lane segments with enforcement in New York and San Francisco

- **Safer and more accessible stops**
  23 percent of wheelchair ramp deployments occurred on Clear Lanes routes on an average weekday

Speed Scales

Under 4 MPH	4-7 MPH	7-10 MPH
10-15 MPH	15-20 MPH	20+ MPH

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Lower ridership, high vehicle availability, and more Abilities-Ride trips have led to **strong MetroAccess on-time pick-up performance** despite increase in shared rides

● **92.7%** of MetroAccess customers picked up on-time, meeting target of no less than **92%**

Steady performance in Q3 and Q4:

- Monitoring and addressing trips projected to be late; reassigning to a taxi or other resource

- Recruitment of new operators and replacing vehicles

On-Time Pick-up Performance: The percentage of vehicles that arrive at their pick-up locations within the 30-min window
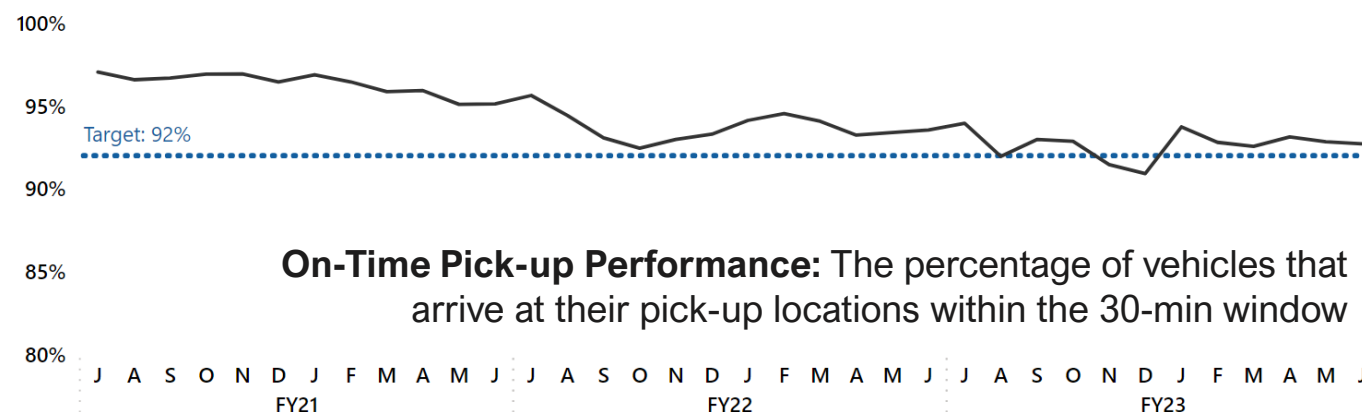
On-time pick-up performance met target **every month** of Q3 and Q4

Rate of excessively late trips remained steady at **1.5% trips in Q4**

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

Metrobus missed trips fell 30% across FY23. On average, there were 156 missed trips per day out of over 11,000 in June 2023 compared to 217 in July 2022

1.4% of scheduled bus service was missed
no target in FY23; ↓ is better

Percent of Scheduled Trips that were Missed
FY23
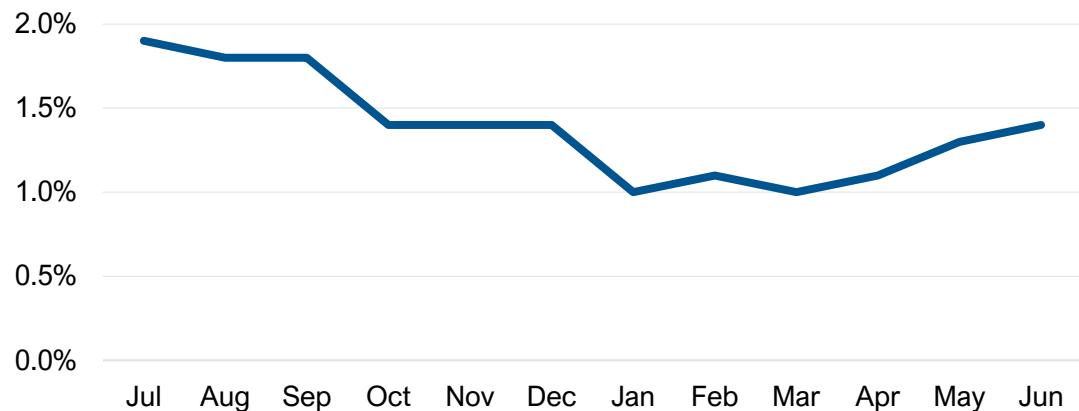
Over 400 bus operators hired in FY23

Metro's bus missed trips rate **well-outperforms** the industry average of 5-15%

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After a steady increase across FY23, bus prediction availability fell in Q4 due to an increase in equipment and integration issues

93.7% of scheduled bus trips with real-time prediction data
(no target in FY23; higher values are better)
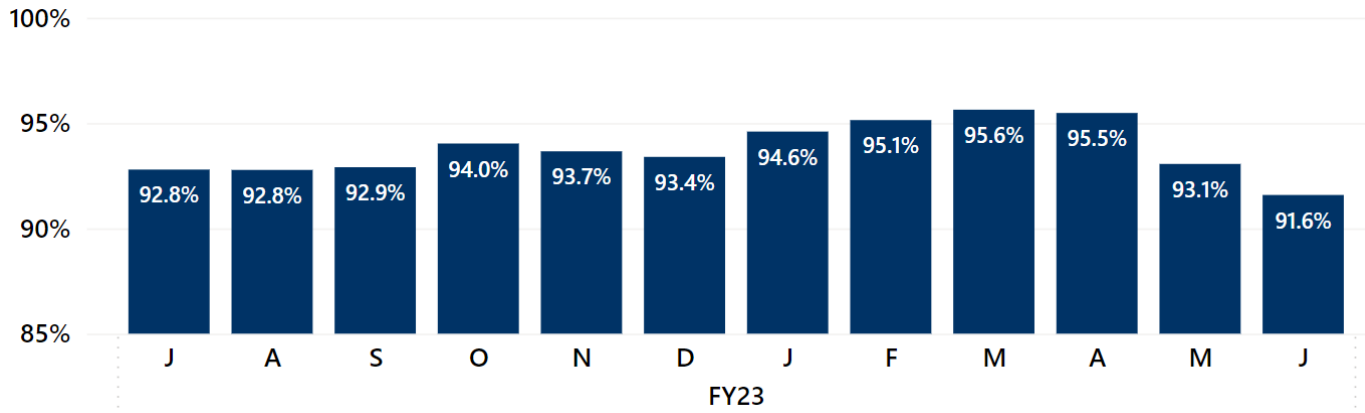
Real-time info provided daily for over **11.1k out of 11.9k scheduled trips** per day in FY23

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

Part 1 crime fell 20% from February to June

🔴 **7.7 Part 1 crimes per million passengers** in FY23

14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0

Target 6.5

Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun

FY21   FY22   FY23

Assault offenses   Larceny/theft offenses   Motor vehicle theft   Robbery

■ Nov ■ Dec ■ Jan ■ Feb ■ Mar ■ Apr ■ May ■ Jun
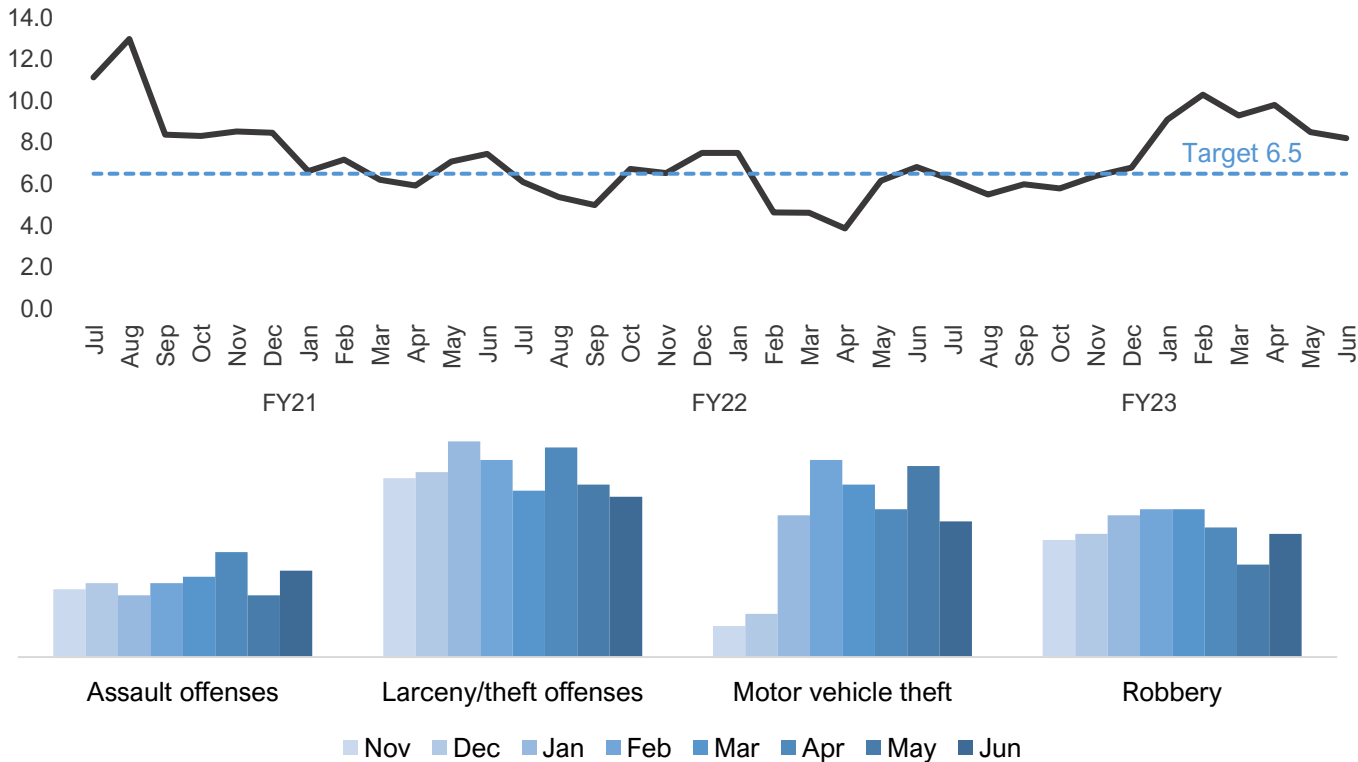
▲ **Trend of top four Part 1 crime rates, Nov 2022 – Jun 2023**

Compared to FY22, officers issued more than **five times** the number of citations for fare evasion in FY23

MTPD increased patrols parking lots with biggest spike in crimes; distributed **over 500** steering wheel locks

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

Keeping the system safe for our customers

Only 317 customer injuries out of almost 200 million trips in FY23; number of Metrorail customer injuries fell 25% compared to FY22
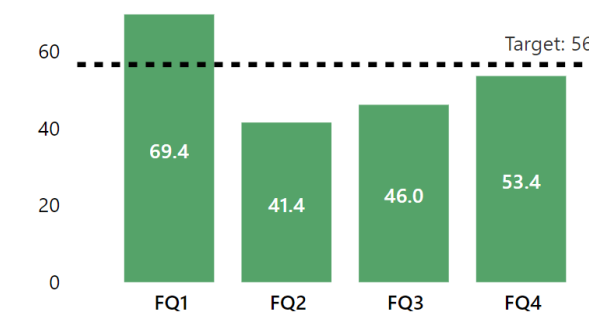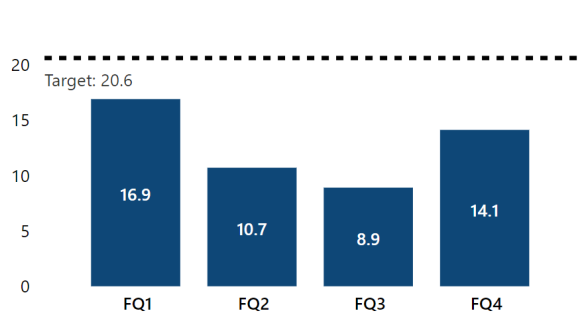

Metrorail   Metrobus   MetroAccess

System safety event rates
Fell by **60%** for rail and **68%** for MetroAccess from Q1 to Q4. Metrobus safety events met target in FY23

Metrorail
- FQ1: 11.0
- FQ2: 4.5
- FQ3: 3.0
- FQ4: 4.4
- Target: 3.9

Metrobus
- FQ1: 54.7
- FQ2: 40.3
- FQ3: 47.0
- FQ4: 53.4
- Target: 53.0

MetroAccess
- FQ1: 39.3
- FQ2: 36.4
- FQ3: 25.8
- FQ4: 12.5
- Target: 19.5
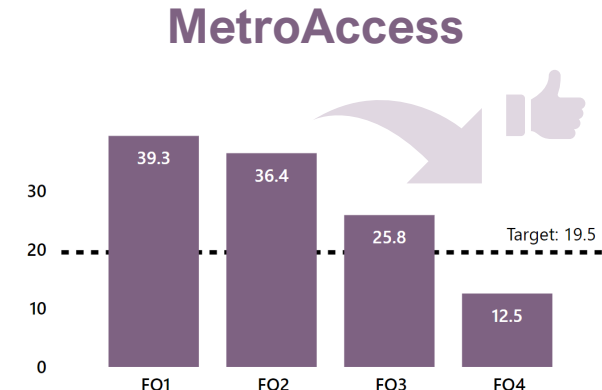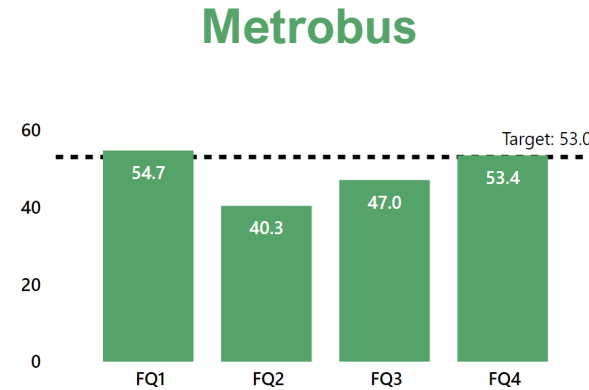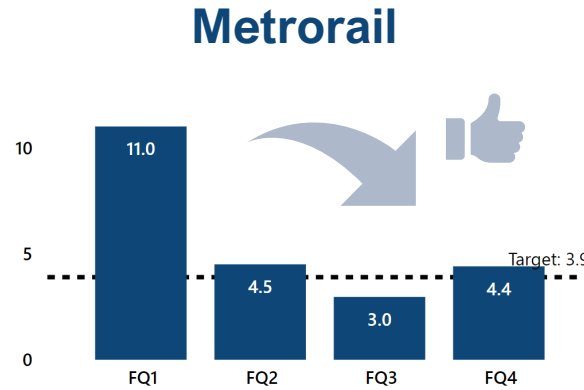
Customer injuries
stayed **below Metro's performance threshold** for all modes for the last three quarters of the fiscal year

Metrorail
- FQ1: 16.9
- FQ2: 10.7
- FQ3: 8.9
- FQ4: 14.1
- Target: 20.6

Metrobus
- FQ1: 69.4
- FQ2: 41.4
- FQ3: 46.0
- FQ4: 53.4
- Target: 56.4

MetroAccess
- FQ1: 12.3
- FQ2: 15.5
- FQ3: 10.4
- FQ4: 6.4
- Target: 15.6

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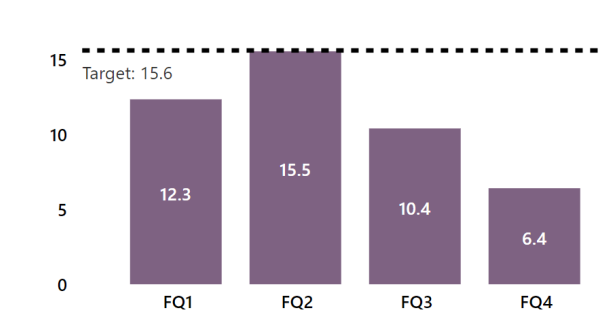
Metro launched its new Open Data Hub on wmata.com

Interactive dashboards, performance reports, and downloadable data. Features our newest real-time dashboard, MetroPulse

Appendix

Elevator Availability

● **98.3%** of 320 elevators were available on average, meeting target of at least **97.5%**

Elevator Availability Breakdown | FY23

- Available
- Capital outages
- All other outages requiring maintenance
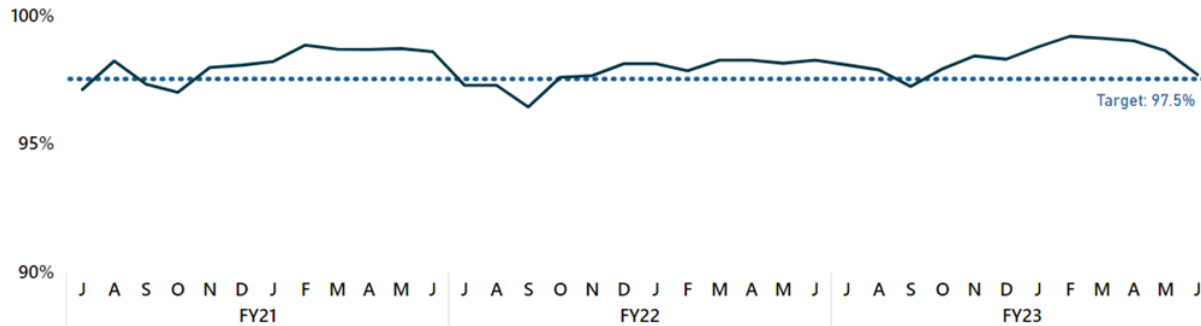
0.5%
98.3%
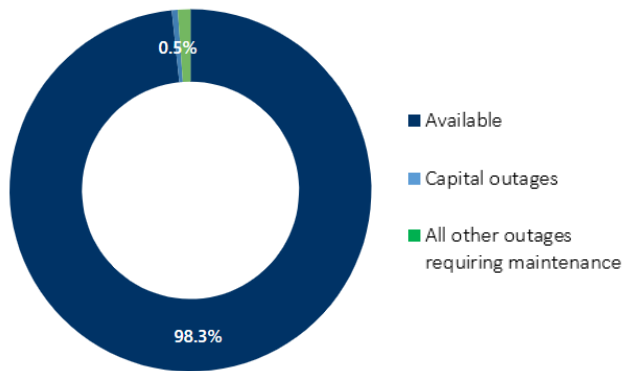
7 units replaced in FY23. Average replacement time is 12 weeks.

Escalator Availability

● **93.6%** of 647 escalators were available on average, meeting target of at least **92.9%**

Escalator Availability Breakdown | FY23

- Available
- Capital outages
- All other outages requiring maintenance

3.5%
93.6%
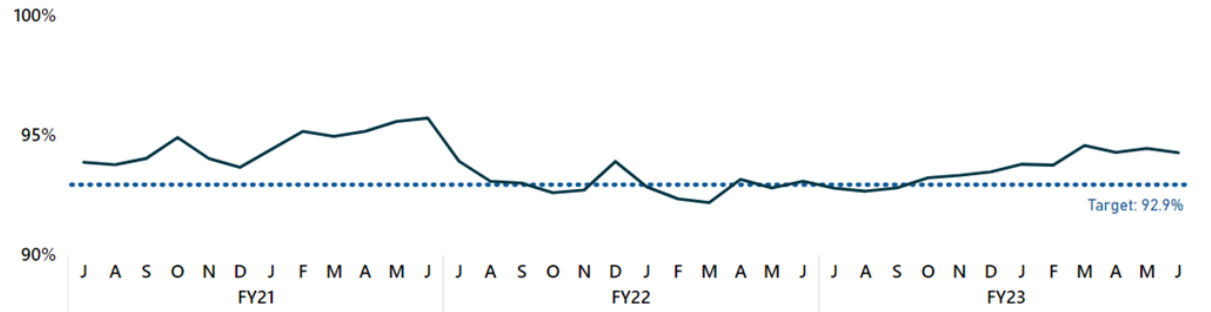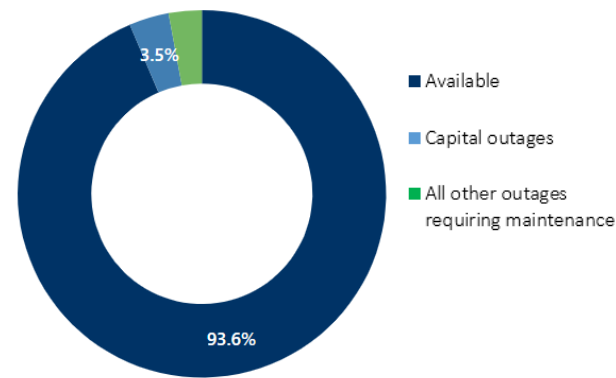
33 units replaced in FY23. Average replacement time is 16 weeks.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

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

Rail Missed Service

● **3.7%** of scheduled rail service missed, meeting target of no more than **6%**

- Performance stays strong in Q4 due to more operators and more trains. In FY23, only about 10% of missed service was due to lack of operators or trains

- Service disruptions caused by rail vehicles, rail signaling issues, and Metro Transit Police activities are top causes for missed service

- Reduced frequencies and single tracking due to weekday evening track work account for 14% of missed rail service in FY23
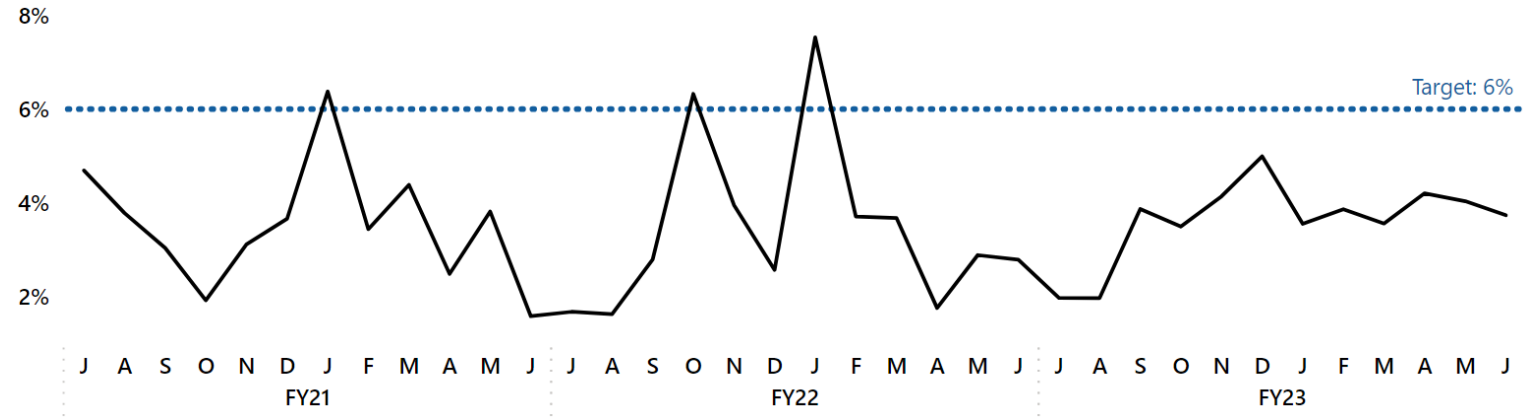
Certify **20-25** new train operators each month. **126** new operators were certified and **125** more in training in FY23

25 new Customer Ambassadors who assist during public-related incidents, help resolve issues, and answer customer questions

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

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

Metrorail Crowding

Service increases have helped keep crowding low. On average, 0.5% of passenger time was in crowded conditions (>100 passengers per car) **across FY23**
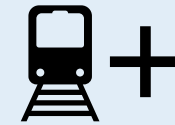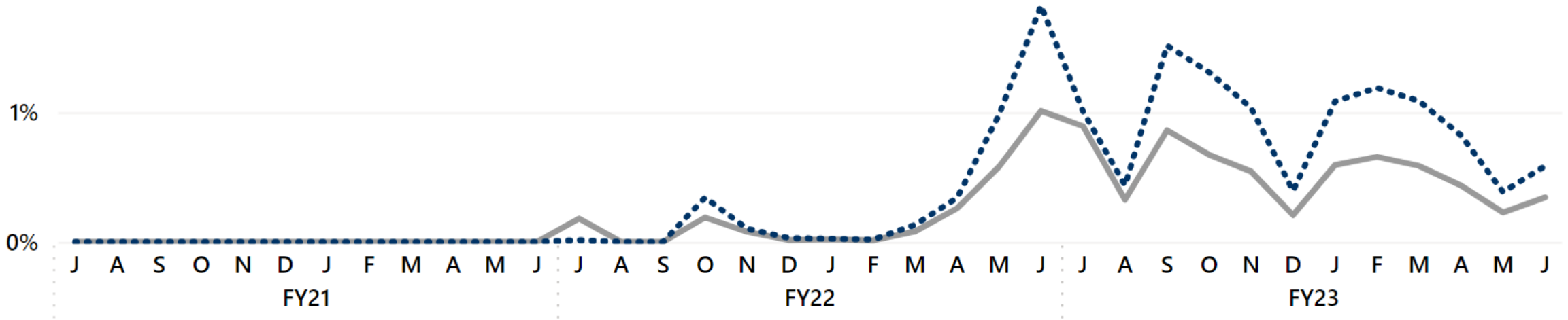
33% more train trips in Q4 than Q1. Added service in May helped lower crowding despite high levels of ridership

Crowding is most prevalent during weekday rush hours, particularly Tuesdays and Wednesdays

Metrobus Crowding

On average this FY, 2.5% of bus passenger time is spent in crowded conditions* up from 1.4% in FY22

Ten routes account for over 40% of crowded passenger time. In Q4, crowding was the highest in May when school was in session for the entire month
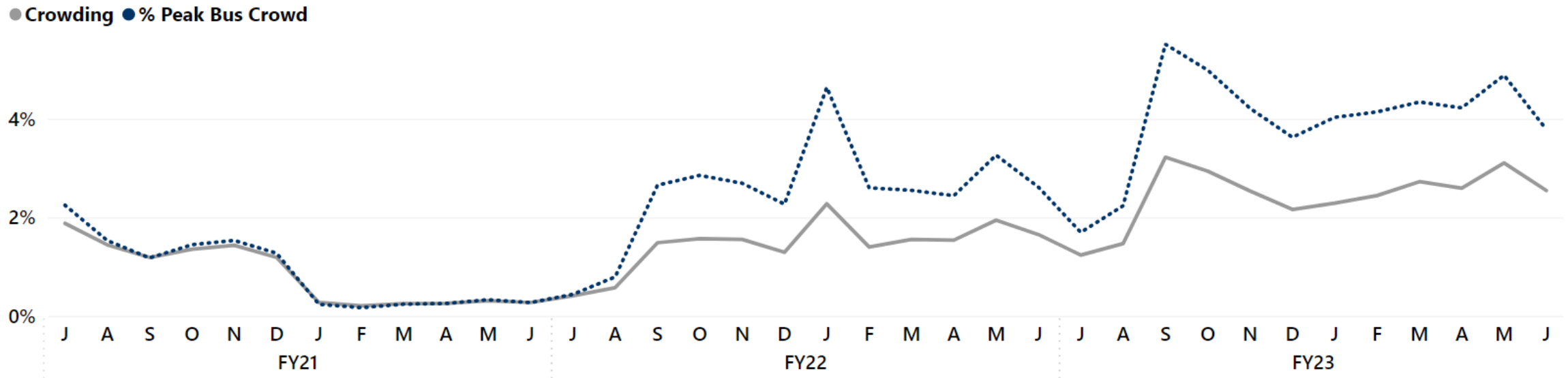
● Crowding ● % Peak Bus Crowd

*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 bus rapid transit, framework, and coverage routes. (See pages 5-6 of the Metrobus Service Guidelines for explanations of these route types.)

Bus Prediction Accuracy

Accuracy was at 86.6% in FY23, with stronger performance in second half of the year. Lower OTP in Q4 negatively impacted performance vs. Q3

● **86.6%** of predictions were accurate
(no target in FY23; higher values are better)
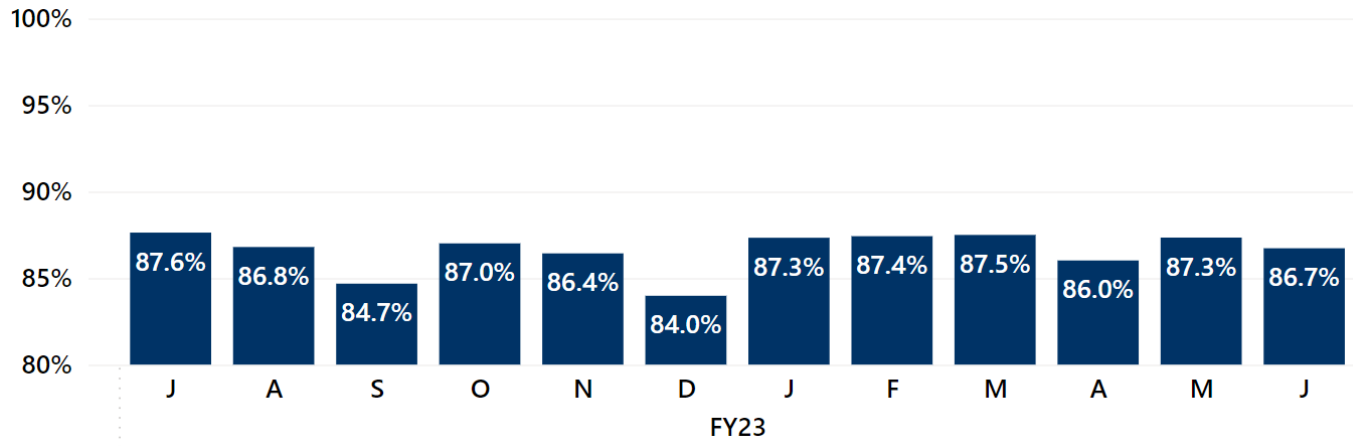
- WMATA uses a standard developed by Boston's Transit Authority to determine if a prediction is accurate

- The range of acceptability tightens as the bus gets closer and does not evaluate predictions when the bus is >30 minutes away:

Bus will arrive in:	Prediction must be between:
0-3 mins	1 min early to 1 min late
3-6 mins	1.5 mins early to 2 mins late
6-12 mins	2.5 mins early to 3.5 mins late
12-30 mins	4 mins early to 6 mins late

🕐 Implemented multiple upgrades to improve real time info displayed on busETA and bus stop displays

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, better than target of no more than **20.6**

- 92 injuries during FY23 required immediate medical attention: 81 slip/trip/falls, six trespassers struck by train, two involving patrons on the roadway, two customer assaults, and one customer trapped in an elevator

- 31 fewer injuries than same period last year
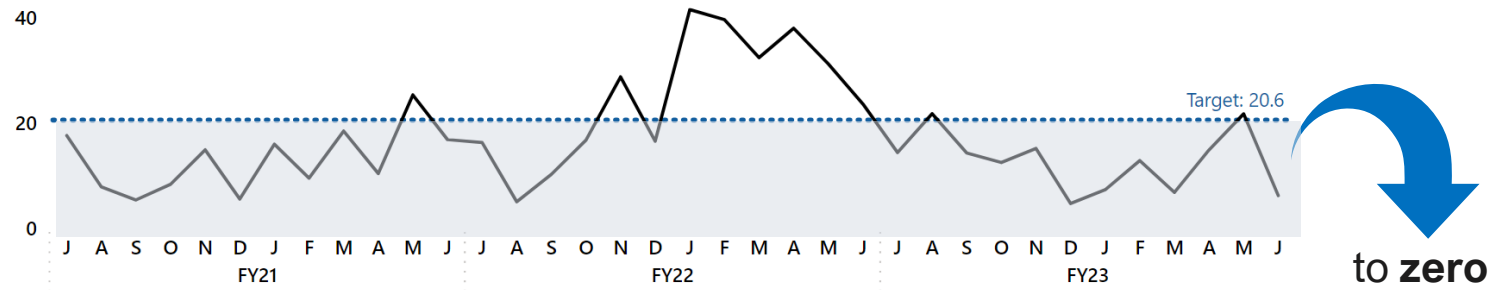
Installed safety signage at escalators at L'Enfant, Foggy Bottom, Bethesda, and Dulles Airport stations.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

● Target met   ● Target at risk   ● Target missed

Metrobus Customer Injury Rate

● **52.5** Bus customer injuries per 10 million revenue miles, better than target of no more than **56.4**

199 injuries during FY23:

- 106 slips/trips/falls (many due to hard braking, bus motion, and boarding/ alighting)
- 80 related to collisions
- 13 other

target: 56.4
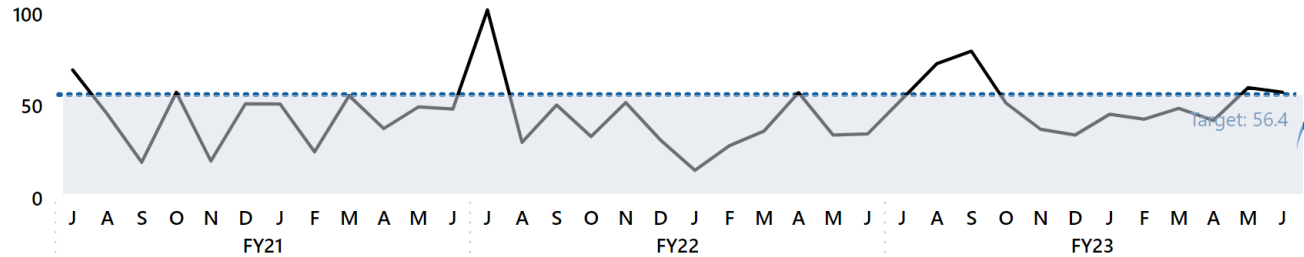
to **zero**

Created collaborative working group that uses DriveCam system to identify policy and process improvements to address risky operator driving behaviors

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

MetroAccess Customer Injury Rate

● **13.7** MetroAccess customer injuries per 10 million revenue miles, meeting target of no more than **15.6**

- 26 injuries in FY23, five more than FY22:
  - 18 collision-related
  - Eight slips/trips/falls (several due to hard braking)
- 17 (65%) customer injuries were non-preventable in FY23

to **zero**
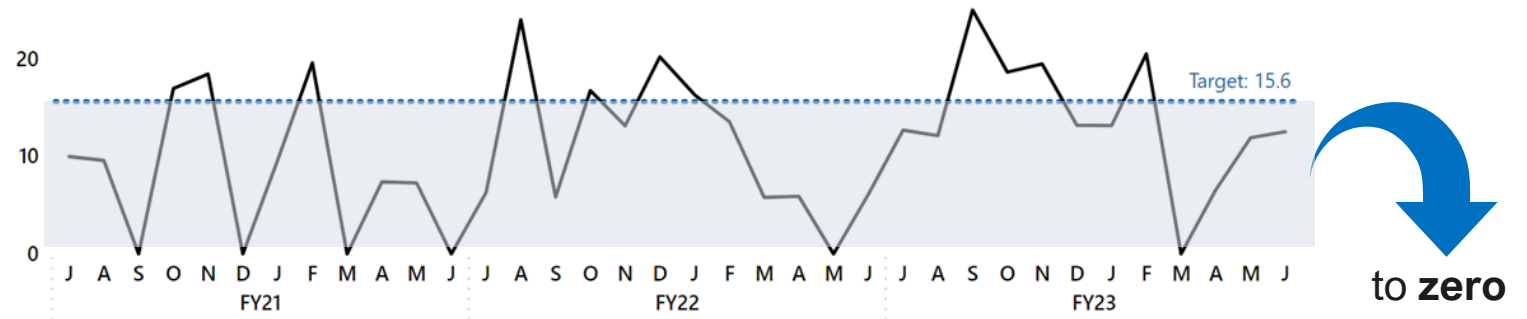
Released revised Door-to-Door and Wheelchair Securement **training videos** in June 2023

Customer injury rate was better than target every month in Q4

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

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

Metrorail Customer and Employee Assault Rate

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

- 55 total assaults during FY23: 14 employee and 41 customer

- 15% decrease in number of assaults from FY22, with four fewer employee assaults

Target: 10.0

to **zero**
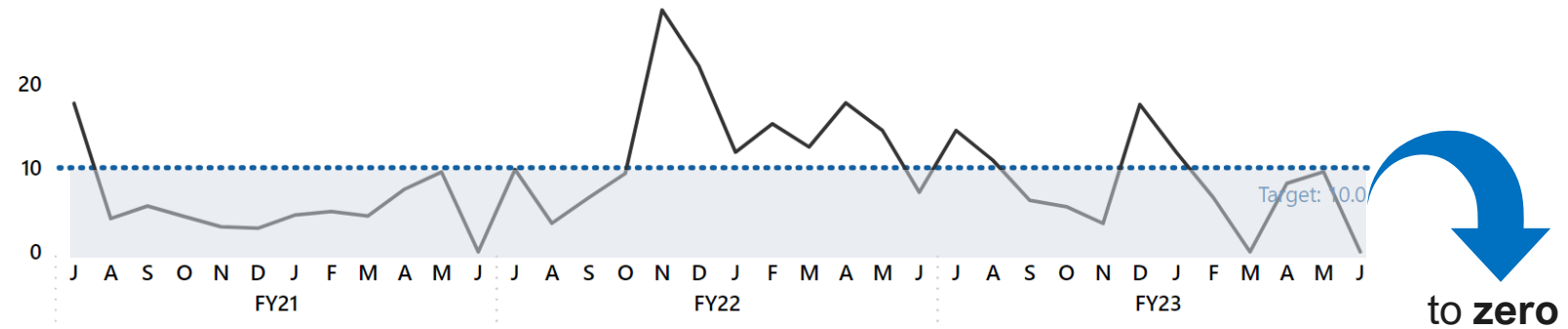
678 Station Managers and Rail Operations Supervisors completed de-escalation training

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

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

Metrobus Customer and Employee Assault Rate

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

- 54 total assaults in FY23: 5 employee and 49 customer

- 50% increase in number of assaults from FY22, increase is entirely in customer assaults

- Employee assaults in FY23 DECREASED compared to FY22– there were 5 in FY23 and 9 in FY22
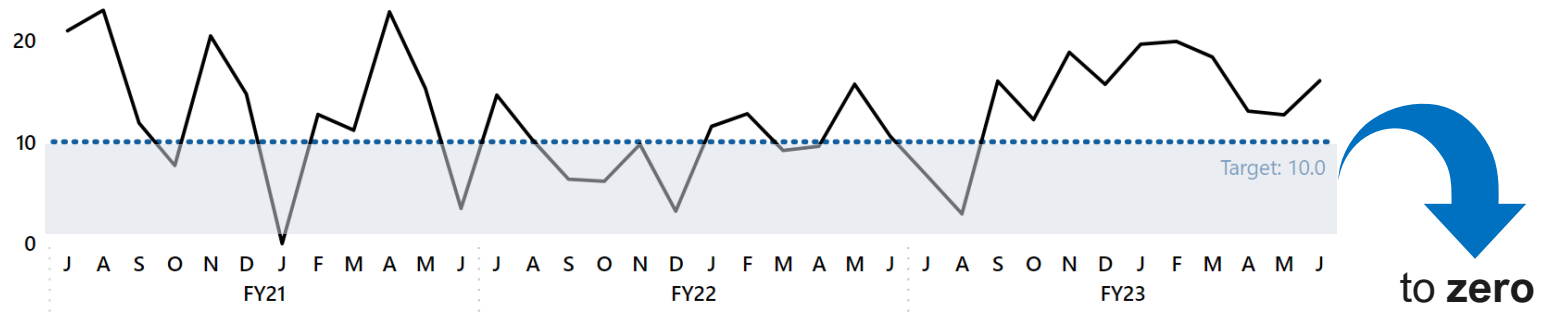
Deploying officers to locations with higher crime and routes with high ridership

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

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

Rail Employee Injuries

Rail employee injury rate has increased by about 9% from the same time period last year

● **3.8** Rail employee injuries per 200,000 work hours, just missing target of no more than **3.6.**

228 injuries during FY23

- The two most frequent injury types were slips/trips/falls and stress cases

- 45% involved rail operators or station managers. Nearly half of those incidents were stress cases

Stress cases:

- **58** in FY23, 19 more than same period in FY22

Assault cases:

- **10** in FY23, four fewer than same period last year

to **zero**
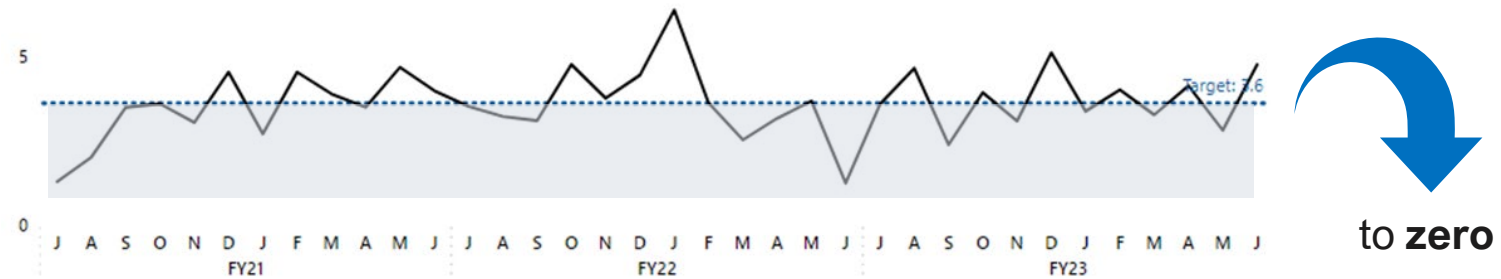
Both Metro's **Employee Assistance Program** (EAP) and MTPD new **Crisis Intervention Specialists** are available to support employees in the aftermath of stress/assault incidents

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

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

Bus Employee Injuries

🔴 **14.4** Bus employee injuries per 200,000 hours worked, missing target of no more than **11.9**

- 519 bus employee injuries in FY23
    - 163 collision-related
    - 149 stress
    - 65 slips/trips/falls
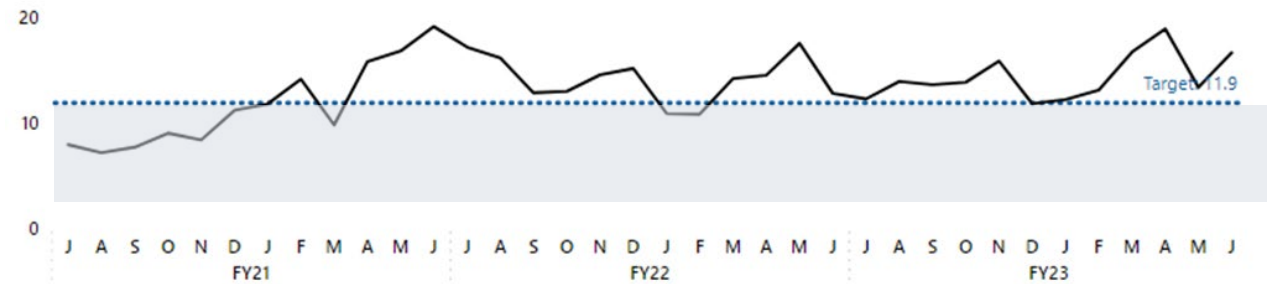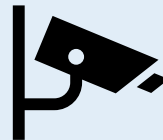
Using real-time video feeds on buses to more quickly respond to difficult situations

to **zero**

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

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

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

PERFORMANCE REPORT

FY2023
July 2022 – June 2023

Published September 25, 2023

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Randy Clarke
General Manager & Chief
Executive Officer, WMATA

Thank you to our customers and Metro employees for a wonderful fiscal year 2023 (FY23) and my first year as General Manager. I'm incredibly proud and thankful of what the hard working and dedicated Metro staff has accomplished to make Metro better for our customers and community.

At the beginning of FY23, Metro was in crisis. We didn't have enough railcars to run our budgeted service, we were short train and bus operators because we paused hiring during the pandemic, we had multiple capital projects that were delayed. We end the year with record high Metrorail customer satisfaction (84 percent), running the most service in Metro's history, and about a 40 percent increase in ridership from FY22.

This report provides data for the entire 12 months of FY23, from July 1, 2022, through June 30, 2023. To further promote transparency, we've launched our Open Data Hub with links to MetroPulse, a new real-time service tracking tool, and the Service Excellence Dashboard, which provides detailed drill-downs on on-time performance by route and trip. Over FY24, we will continue to make updates based on customer feedback, add new features, and develop real-time performance reporting on Metrobus. Also starting in FY24, we'll align our performance reporting to the goals and metrics in Metro's Strategic Transformation Plan: Your Metro, the Way Forward. This plan is the north star for our organization. Focusing on these priorities will guide our work and help focus us on reaching our vision of becoming the region's trusted way to move people safely and sustainably. I'm pleased to include several additional updates on our progress below.

Service Excellence: Deliver safe, reliable, convenient, equitable, accessible, and enjoyable service for customers

Safety is a top concern for our customers and employees. Part 1 crime fell 20 percent from February to June after an early-2023 spike largely driven by higher rates of motor vehicle thefts and robberies. In Q3, Metro entered a joint safety partnership with other agencies to increase patrols on the system, leading to an extra 90 officers in the system across Q3 and Q4 concentrated at 15 Metro stations.

Metro has made investments in cops, cameras and compassion over FY23, taking the following actions to make our system safer:

- Rolled out body-worn cameras for all sworn MTPD officers
- Held more than 300 MTPD community events
- Increased fare enforcement systemwide
- Outfitted each MTPD officer with lifesaving Narcan
- Increased camera infrastructure systemwide
- Closed 83% of all homicide-related cases

Improving the frequency and **reliability** of our service has been a major area of focus in FY23. We increased Metrorail service 11 times since July 2022, adding 73 percent more train trips each day and achieving 90 percent customer on-time performance. This was made possible by returning the 6000-series fleet to service and increasing 7000-series train availability by 58 percent. We completed the largest system expansion since 2014, opening six new Silver Line stations and Potomac Yard station and adding 22 miles of track. Staff from across Metro are collaborating to advance efforts to return to Automatic Train Operation. Finally, Metro staff and contractors completed multiple major projects to keep the system in a state of good repair and service reliable for customers:

- Re-opened the Yellow Line bridge on time and on budget. Since re-opening, the bridge has carried 2.4 million customers
- Installed 21 new escalators
- Replaced 14 miles of track
- Replaced nearly 1,800 tons of rail, installed fiber optic cable, and cleared more than 42,000 linear feet of invasive brush on the Orange Line

In FY23, we launched the Bus Network Redesign and accelerated our timeline by two years so that customers could see benefits as soon as possible. With our most recent bus changes on June 25, service on 68 Metrobus routes was expanded and adjusted, exceeding pre-pandemic levels by four percent. Customers are now also able to request a courtesy stop between 9pm and 5am. We placed in service almost 20 of the 95 new buses ordered this year that have charging ports beneath every seat, customer information screens and larger taillights to make buses more visible to other drivers. In June, we began implementing Clear Lanes technology by installing cameras on 140 buses that serve 31 routes that run along bus only lanes in the District. The cameras will capture violators and then wirelessly transmit the encrypted videos and photos directly to the District Department of Transportation for review and enforcement. In the District, where a majority of Metrobus customers do not own cars, the program is expected to improve service for more than 60 percent of DC bus customers.

To make it more **convenient** and easier for customers to pay, we have begun rolling out new fare boxes on all buses; encouraged the use of SmarTrip® cards in Apple and Google Wallets, reaching 1,000,000 users; eliminated the $2 SmarTrip® card fee for Senior Citizens; and installed centralized pay stations and ParkMobile® at all of Metro's 63 Kiss & Ride parking lots.
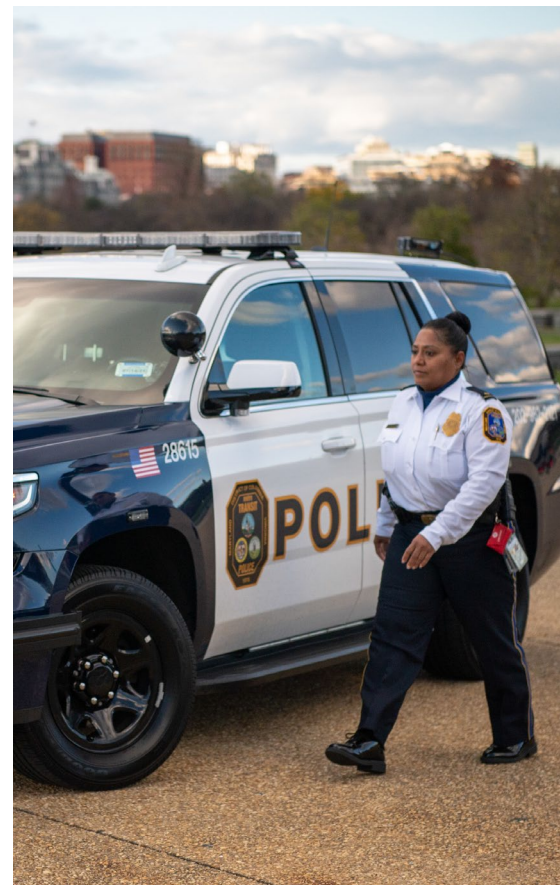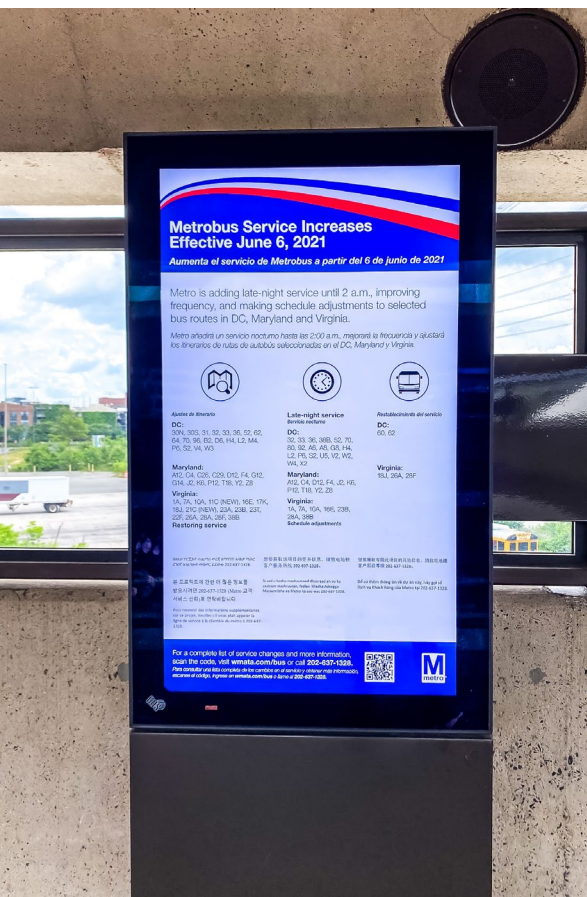
To make real-time information more **accessible** to customers and easier to know when the next train or bus is arriving, we installed digital displays outside of Metro Center and Columbia Heights stations, piloted ePaper bus signage at Braddock Rd station, and made improvements to how information is displayed on busETA, our webapp.

Talented teams: Attract, develop, and retain top talent where individuals feel valued, supported, and proud of their contribution

Investing in our staff ensures that we have the resources and team in place to provide an excellent customer experience. In FY23 we hired 1,299 new employees including over 500 new bus and rail operators, and we hosted 63 summer college interns. As a result of the operator and support staff recruitments, we have been able to both increase rail service and deliver almost all scheduled bus service, keeping our missed trip rate below 2 percent and one of the lowest in the nation.

We opened three new office buildings at L'Enfant Plaza, New Carrollton and Eisenhower Avenue. In June, we took a major step towards fostering a culture of continuous improvement by launching Idea Lab to solicit and develop ideas from staff that make Metro better.

Regional Opportunity and Partnership: Design transit service to move more people and equitably connect a growing region

Metro plays a vital role connecting communities across the region. Designing service that meets our customer needs is essential to making Metro an effective regional resource. In FY23, we increased our public engagement for the budget by more than 50 percent. In June, we launched the Metro Lift program, making Metro more affordable and accessible to customers who receive Supplemental Nutrition Assistance Program (SNAP) benefits. As part of our continuing efforts to expand access, increase affordability, and advance equity, we anticipate Metro Lift assisting up to 471,000 SNAP recipients across DC, Maryland, and Virginia. This program is crucial for customers and households most likely to forego public transit use due to cost. They're also the least likely to have alternative travel options.

To further advance equity and develop housing walkable to our system, we worked with Amazon Housing Equity Fund on their $100 million investment in four joint developments, creating 1,000 units of affordable housing that will remain

affordable for 99 years. We also closed on three transit-oriented development projects, making transit accessibility a cornerstone of these projects at Grosvenor, Bethesda, and the Jackson Graham Building (Metro's former headquarters). The building will be converted into mixed-use office and retail space and is touted as the largest new private sector 99-year ground lease deal in the District since 2019.

Sustainability: Manage resources responsibly to achieve a sustainable operating, capital, and environmental model

Every trip taken with Metro instead of a car reduced green house gas emissions. In FY23, we accelerated our commitment to end CO_2 (carbon dioxide) emissions, pledging to have a zero-emission bus fleet by 2042, three years earlier than the original plan. In June, we received our first electric bus and have begun installing electric charging infrastructure to support the future fleet. Metro was also awarded a $104 million federal grant to help purchase 100 zero-emission electric buses and implement required technological changes at Cinder Bed Road Bus Division to support them.

As responsible stewards of public funding, Metro is committed to addressing fare evasion in our system. In FY23, we piloted a new faregate design that includes an L-shape door panel that extends over the faregate to minimize gaps between the openings. The increase in barrier height from the original 28 to 48-inch prototype to 55 inches will also make it more difficult to jump over faregates. The swing doors are made of a polycarbonate which is 200 times stronger than glass, lighter weight, and more durable. The final design also includes more robust hinges and a more powerful motor to strengthen the door. As stations are retrofitted with the new barriers, Metro is also raising the height of fencing and emergency gates. Preliminary data shows that these new, higher faregates are reducing fare evasion by more than 70 percent at the first stations where they have been installed.

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

Onward together,
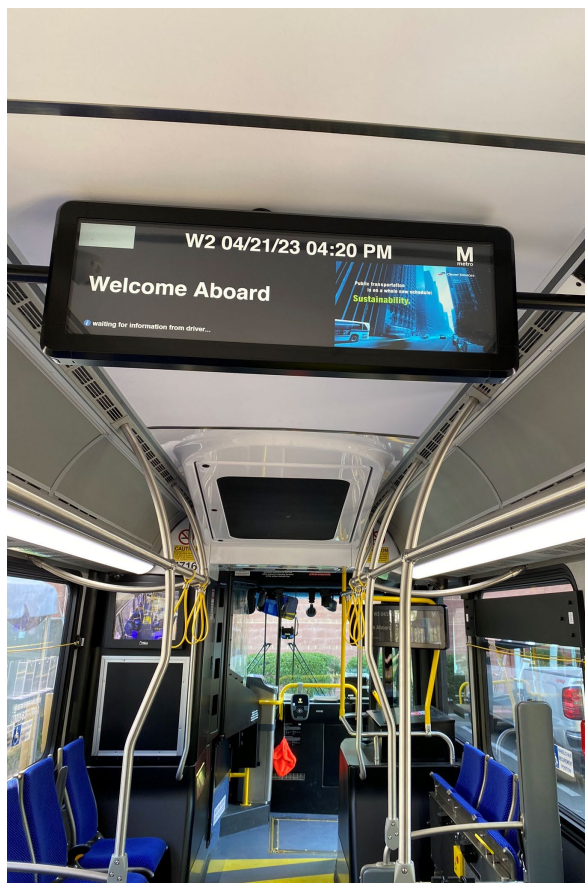
ABOUT THIS REPORT

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**

Note: Occasionally, historical data points are updated with stronger, more accurate data due to normal processes of data cleaning, investigation, and correction. While mostly consistent, some data points in this report are subject to minor change from previous versions. Please refer to the newest report and accompanying data tables for the most accurate data. If a data error in a previous report had a major effect on a performance measure's result or narrative, we will communicate the correction in the next report released.

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.

FY23 Scorecard:
The Customer Experience Measured

In FY23, Metro met **13 of the 26 measures** featured in this report with fiscal year targets

- Target met
- Target at risk
- Target missed
- No target

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- METROBUS
- METROACCESS

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- RAIL | ● BUS
EMPLOYEE INJURIES:
- RAIL | ● BUS
- OPERATIONS-RELATED FATALITIES

Metro carried 199.7 million riders across Rail, Bus, and MetroAccess in FY23. Metrobus ridership accounted for 51 percent of total ridership, exceeding Metrorail ridership by about 6.7 million riders.

In FY23, **Metrorail** ridership was 95.8 million. Rush hour ridership has been steadily increasing since the pandemic; by the end of FY23, the system was busiest around 8am and 5pm Tuesday through Thursday. Average weekday ridership in FY23 was 303,000 and average weekend ridership was 176,000.

Metro's new station, Potomac Yard, opened on May 19, 2023 and served 95,000 trips through the end of Q4. On the Silver Line extension, ridership continues to increase on pace with systemwide increases; the extension served more than 1.9

million trips through the end of Q4. And since the reopening of the Yellow Line bridge on May 7, 2023 through Q4, the bridge has carried over 1.5 million passengers and ridership and transfer patterns have returned to pre-shutdown norms.

About 102.5 million passengers rode **Metrobus** in FY23. On the Saturday of the Pride Parade, buses carried 235,000 riders, the highest Saturday since the start of the pandemic. Average weekday ridership in FY23 was 326,000 and average weekend ridership was 182,000.

MetroAccess ridership was 1.39 million in FY23. Ridership remained stable through Q4, ranging between 110,000 and 130,000 passengers per month (pre-pandemic ridership was around 200,000 passengers per month). Average weekday ridership through Q4 of FY23 was 4,600.

Monthly ridership trend | FY21 through FY23
All | **Bus** | **Rail**

Faregate installation complete: Metrorail ridership includes tap and non-tap ridership
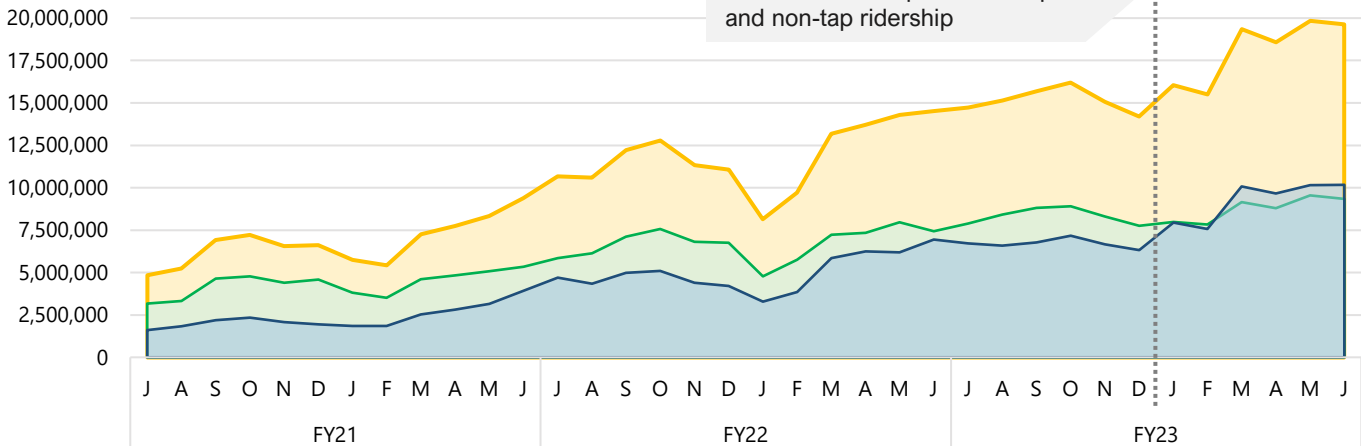
Metro's **Ridership Data Portal** provides ridership data since 2010, including during the pandemic. Engage with the data through interactive dashboards using the Data Viewers (**Rail**, **Bus**, **Parking**)

Monthly ridership trend | FY21 through FY23
MetroAccess
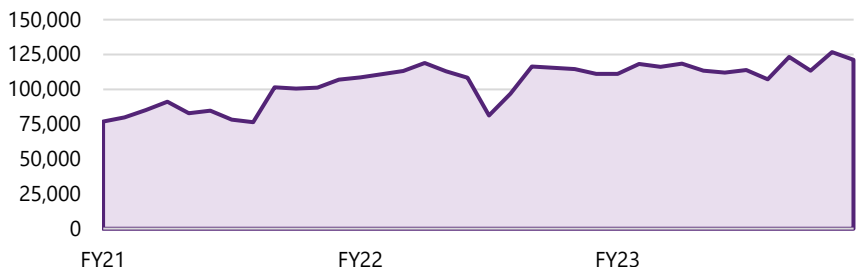
Note: Does not include trips taken on Abilities-Ride. In FY23, there were 566,000 additional trips on Abilities-Ride

84% customer satisfaction for Metrorail in Q4, meeting target of **79%** or better

Customer satisfaction with Metrorail increased in Q4 to the highest point of the fiscal year, reflective of rail's steady increases in service. Although concerns with safety remain, customers were more satisfied in Q4 with police presence on Metro reflecting the steps to partner with regional police and private security firms to deploy more resources at key times.

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 five-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 ↑

Chart takeaway | Rail customer satisfaction continued to increase, reaching the highest performance of the fiscal year in Q4.

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.

FY20				FY21					FY22				FY23		
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
79%	83%	85%					91%	91%	73%	68%	69%	73%	79%	79%	84%

71% customer satisfaction for Metrobus in Q4, missing target of **76%** or better

Bus customer satisfaction decreased slightly in Q4 but remained statistically consistent with the rest of FY23 and in line with rates seen pre-pandemic (less traffic, free fares, and less crowded buses during the pandemic boosted satisfaction rates). Satisfaction with bus wait times and reliability have remained consistent across the year, while satisfaction regarding crowding has fallen since last year as ridership has grown.

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

Chart takeaway | Bus customer satisfaction in Q4 was consistent with the past two quarters and remains higher than the same time period last year.

Target: 76%

FY20				FY21					FY22				FY23		
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
76%	79%	76%		64%	84%	88%	81%	87%	72%	64%	69%	74%	75%	73%	71%

77% customer satisfaction for MetroAccess in Q4, missing target of no less than **90%**

MetroAccess customer satisfaction remained statistically the same in Q4 compared to Q3, returning to levels seen pre-pandemic. Satisfaction rose in the pandemic (FY21 and FY22) 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. The FY23 target was set to improve three percentage points over the average level achieved in FY21 and FY22 (through Q3).

Customer Satisfaction against **dotted line target**
Y: % of customers who were satisfied with their last MetroAccess trip | X: quarter
Direction of desired performance: up ↑
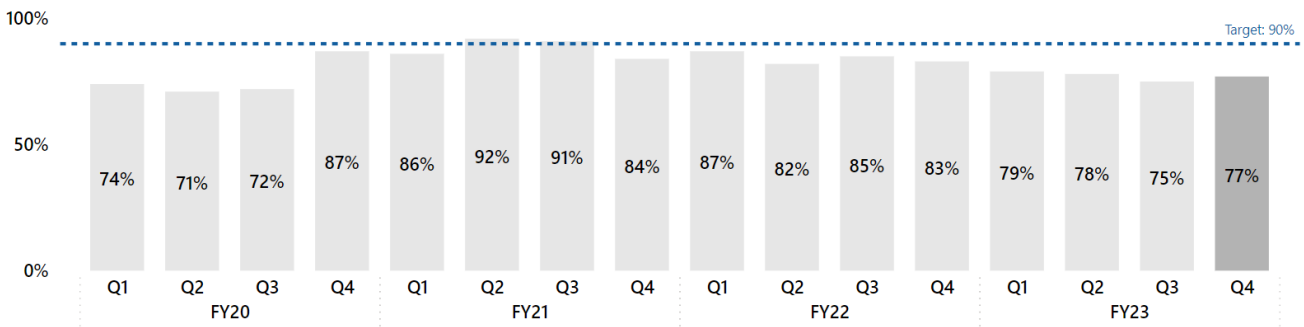
Chart takeaway | MetroAccess customer satisfaction has steadily fallen in FY23 as shared rides resumed and regional traffic has picked up. Customer satisfaction peaked in the middle of the pandemic, in Q2-Q3 FY21.

				FY20					FY21					FY22					FY23	
Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4	
74%	71%	72%	87%		86%	92%	91%	84%		87%	82%	85%	83%		79%	78%	75%	77%	

Target: 90%

A majority of customers think the quality of MetroAccess has gotten better over the past year. However, concerns with how well dispatch coordinated with the driver remains high, with a 57 percent satisfaction rate.

To address discourteous behaviors from drivers, MetroAccess is encouraging drivers to not rush, be polite, and take their time with customers, and is also creating a training video about being a professional driver. Additionally, about 50 drivers so far received de-escalation training from Metro's police department. MetroAccess also released and circulated new training videos for both drivers and call center staff. These efforts have kept customer satisfaction with drivers operating the vehicle safely and the courtesy of the drivers high from Q3 to Q4.

To help improve customer satisfaction, MetroAccess launched a service called "Find My Ride" that allows customers to see when their trip is expected to arrive. This helps customers better prepare for pick-ups and informs customers if their trip is expected to be late. Nearly 550 MetroAccess customers have already started using Find My Ride.

RAIL MISSED SERVICE

● **3.7%** of scheduled rail service missed, meeting target of no more than **6%**

Single-tracking and reduced train service during weekday evening track work accounted for over 14 percent of missed rail service, followed by service disruptions caused by rail vehicles, rail signaling issues, and Metro Transit Police activities. About five percent of missed service was due to operator availability, and another five percent due to 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 missed | X: month
Direction of desired performance: down ⬇
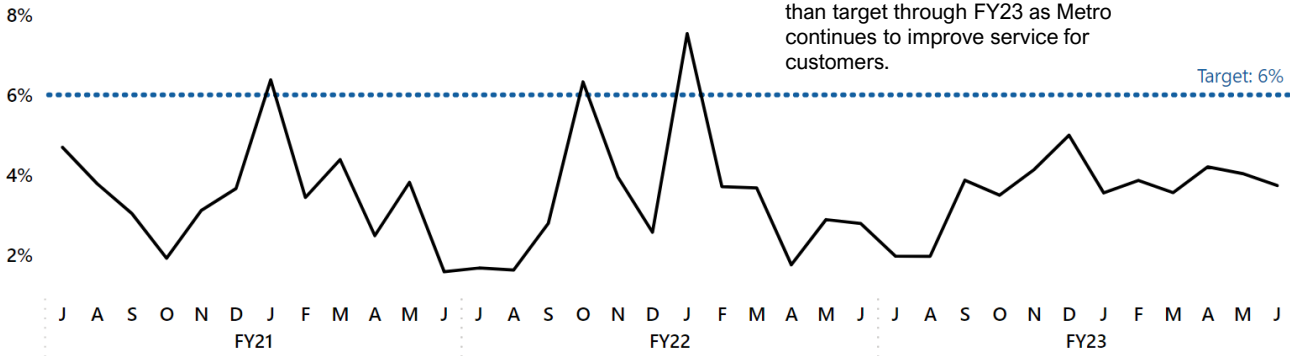
Chart takeaway | Missed trips are better than target through FY23 as Metro continues to improve service for customers.

Target: 6%

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 J F M A M J
FY21	FY22	FY23

Missed service increased slightly through Q2 of the fiscal year but trended positively across Q3 and Q4 thanks to efforts to improve both operator and train availability. Metro continued its accelerated hiring and training of new train operators during this time: 126 new operators were certified in FY23 and 125 more were in training at the end of the fiscal year. At the same time, an increasing number of 7000-series trains were available for service. As of June, more than 50 7000-series trains ran in daily service, accounting for 60 percent of rail mileage.

Starting late February, Metro built major late-night trackwork into its service schedule, which boosted the number of trips meeting schedule during this period. These schedule changes accommodate planned improvements, provide a more realistic schedule for Metrorail to meet, and improve clarity on adjusted rail schedules for customers.

Overnight and weekend maintenance is essential to prevent major system failures and keep the system in a long-term state of good repair. In FY23, Metro departments continued their efforts to identify opportunities to improve the efficiency of overnight track work and minimize the amount of maintenance conducted during the day which can result in service reductions.

BUS MISSED TRIPS

1.4% of scheduled bus trips missed (no target in FY23; lower performance is better)

Metrobus started the fiscal year missing on average 217 trips per day and ended the year missing on average 156 trips per day (Metro runs on average 11,800 total trips per day), improving performance by 28 percent. Missing less than two percent of trips all year is unusually strong performance compared to peer transit agencies, which often have five to 15 percent missed trips.

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 | FY23
Y: % of trips missed | X: month
*Direction of desired performance: **down** ↓*
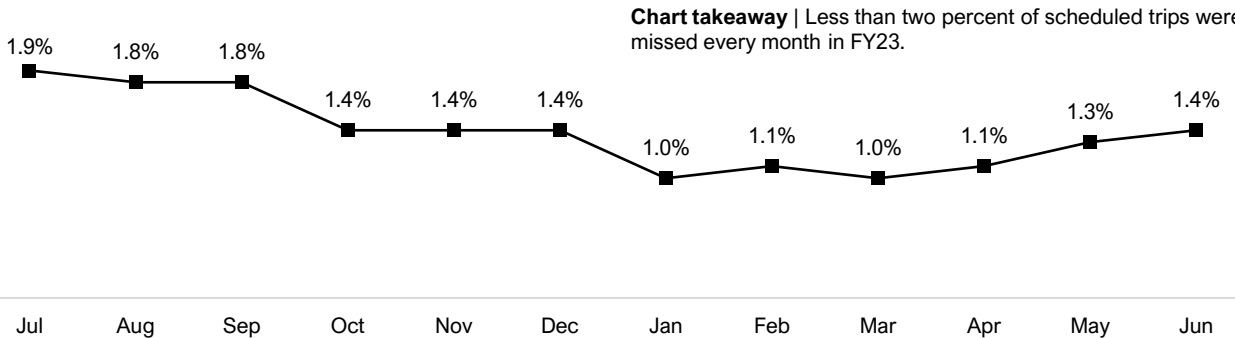
Chart takeaway | Less than two percent of scheduled trips were missed every month in FY23.

1.9%	1.8%	1.8%	1.4%	1.4%	1.4%	1.0%	1.1%	1.0%	1.1%	1.3%	1.4%
Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun

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 other incidents.

Because bus operator availability plays the largest role in buses never leaving the depot, in FY23 Metro focused on an intensive bus operator recruitment effort, with over 400 new operators hired and starting to drive this year. Recruiting new bus operators also helps drive stronger Metrorail service, as new train operators are recruited from Metro's existing bus operator pool.

Metrobus also continued to focus on ensuring that the last trip of the day on every route is always met—making sure that riders can count on Metro to get home. By the end of FY23, Metrobus was missing its last trip less than 0.1 percent of the time.

93.7% 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 online resource, "busETA"—along with third-party apps like Google Maps, Apple Maps, or Transit—display these predictions. Across FY23, almost 94 percent of trips had real-time prediction data available.

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 | FY23

- Trips with Predictions — 93.7%
- Missed Trips — 1.4%
- No Data Trips — 4.9%

Chart takeaway | Almost 94% of trips had real-time prediction data available in FY23.

Routes with the lowest prediction availability:

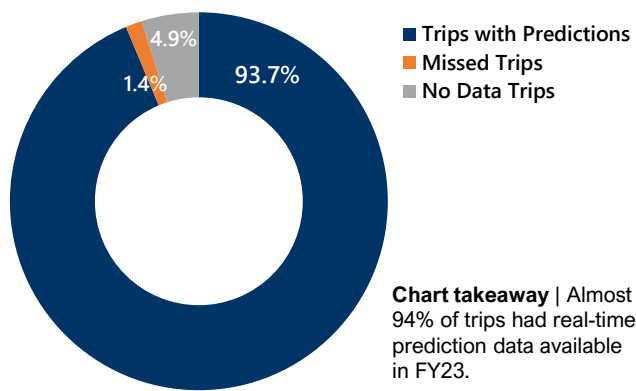| Route	Availability
C27	69.6%
A33	78.2%
X3	79.3%
11C	81.0%
U4	83.7%
A4	85.4%
D31	85.5%
B27	85.6%
D32	85.9%
A31	86.0%

Chart takeaway | In FY23, the C27 had the lowest percentage of trips with real-time data available for predictions, due to a high percentage of missed trips (17.4% of trips) and many trips with a malfunctioning GPS (13.0% of trips).

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 A4 is a Frequent Service Network route.

Four out of ten of the lowest performing routes are school routes.

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 because 1) the trip was missed or 2) the GPS on a bus was malfunctioning, leading to no data available.

Performance on the first root issue improved from Q1 to Q4: Bus missed trips fell from 1.8 to 1.3 percent.

On the second root issue, in January 2023, Metrobus launched a new campaign and coaching to ensure that all operators log on to enable GPS devices. As a result, the operator log on rate was consistently above 93 percent in calendar year 2023.

Through Q4 of FY23, Metrobus repaired GPS units on 76 vehicles. The pace of repairs fell during Q4 due to other key upgrades on buses

prioritized during this time. As a result, prediction availability fell to 91.6 percent in June. Metro has worked with contractors to allocate additional resources to repair these units in FY24.

Metro has taken steps to improve how data is displayed in busETA and on signs at bus stations. Metro removed "ghost buses" (buses that are scheduled but aren't actually running) from busETA in December of 2022 and made other updates to the GTFS-RT (real time bus schedule) data to reduce lags in sharing data with third-party applications. Metro also improved the order in which predictions displayed on the app so that the next bus always appears first for customers.

At bus stops, displays were corrected to keep prediction information on-screen for a late bus until it arrives. These screens also started displaying crowding statuses beginning in May.
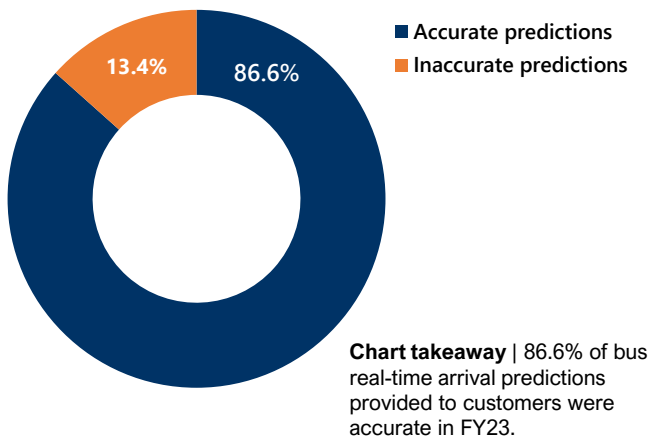
86.6% of real-time predictions that were accurate (no target in FY23; higher values are better)

Metro provides real-time arrival predictions for customers via its busETA resource 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 decreased slightly in Q4 compared to Q3, from 87.4 percent to 86.7 percent, but remained strong and above Q1 and Q2 performance.

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 | FY23

■ Accurate predictions
■ Inaccurate predictions

13.4%   86.6%

Chart takeaway | 86.6% of bus real-time arrival predictions provided to customers were accurate in FY23.

Routes with the lowest prediction accuracy:

Route	Accuracy
D34	63.5%
D31	69.0%
B97	70.7%
W5	72.2%
3F	74.7%
3Y	75.6%
S41	75.7%
W47	76.4%
A33	76.7%
A31	77.2%

Chart takeaway | The D34, D31 and B97 routes had the lowest levels of prediction accuracy. Many of the lowest performing routes are school routes which only operate for several trips in the morning and afternoons.

Many of these low performing routes also have lower frequencies. Routes with lower frequencies tend to perform worse in the prediction accuracy metric because they have fewer data points and inaccurate predictions have a higher impact on the metric.

To calculate prediction accuracy, Metro uses the standard developed by the Massachusetts Bay Transit Authority, which compares the predicted time of arrival to actual time of arrival. Because customers rely more on predictions in the near-term, this methodology only evaluates predictions that are within 30 minutes of arrival time. Additionally, thresholds for what counts as an "accurate arrival" are more stringent as a bus approaches a stop. See the definitions section at the end of this report for more information on this methodology.

Prediction accuracy starts with the bus schedule. Large deviations from the schedule, such as when buses are very late or very early, 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. Additionally, Metro implemented changes in FY23 to reconcile differences between busETA and the signs at bus stops that display predictions.
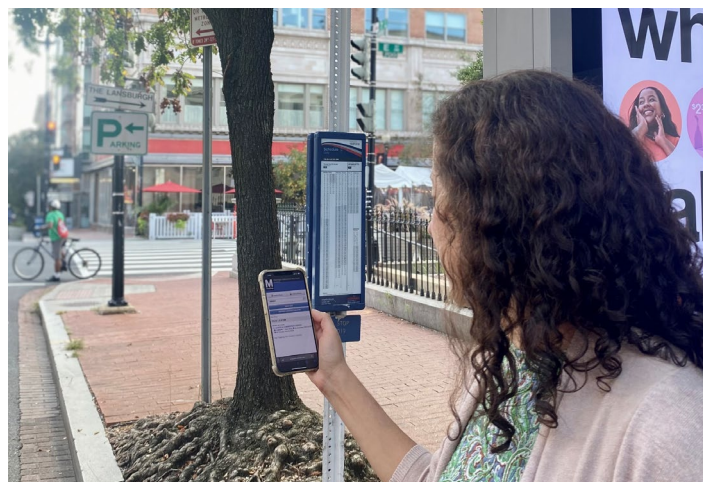
RAIL CUSTOMER ON-TIME PERFORMANCE

90% of rail customer trips completed on-time, missing target of at least **92%**

Metro continued to improve rail service frequencies as more 7000-series trains return to service. These improvements mean lower wait times for customers. However, on-time performance (OTP) declined slightly across Q2 - Q4 as staff adapted to these new, more complex schedules and new rail operator hires started.

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
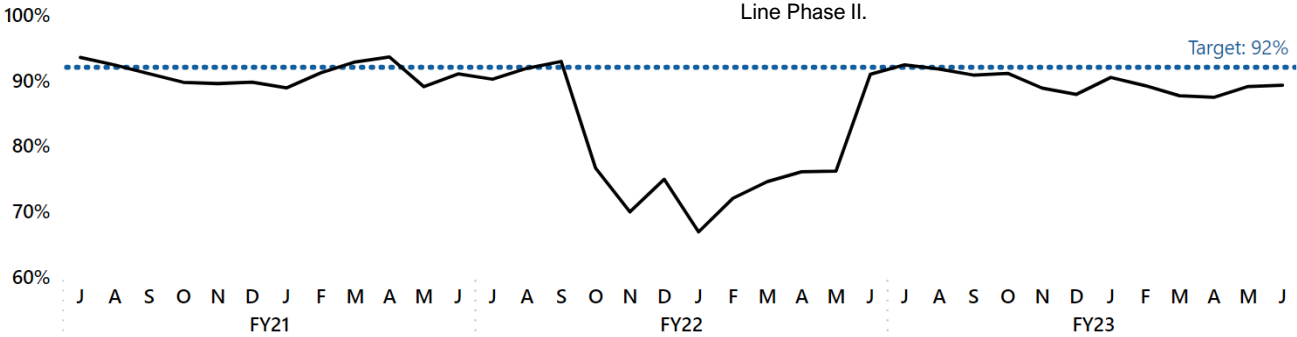*Direction of desired performance: up* ↑

Chart takeaway | After falling in FY22 during the sidelining of the 7000-series trains following the Blue Line derailment in October 2021, Rail Customer OTP met target in Q1 FY23, but fell below target in Q2, Q3, and Q4 as Metro continued to adapt to operational changes such as train count increases, escalating ridership, and the opening of Silver Line Phase II.

Unplanned service disruptions—such as rail vehicle or track circuit issues, customer-related incidents, or operator availability—lowered OTP by about 8.6 percentage points through FY23. Midday, late night, and weekend single-tracking or shutdowns for planned maintenance lowered OTP by about 1.4 percentage points.

To improve performance, Metro continued to safely return more 7000-series railcars to service following a derailment in October 2021. The average count of these trains in service increased significantly across FY23, from about eight a day in July 2022 to over 50 in June 2023. In May, Metro restored Yellow Line service after significant capital work and opened its newest station, Potomac Yard. As summer construction work began in May, Metro focused on running as much service as possible and providing travel alternatives for customers.

Metro also added rail service 11 times across the fiscal year. Thanks to these improvements, 98 percent of trips were faster in June of 2023 compared to July 2022. Trip delays were also shorter, as more trains were available to provide service when disruptions occurred. Of the 10 percent of trips that were late, the average delay fell from eight minutes in July 2022 to 6.3 minutes in June 2023, and all lines except the Green Line saw service improvements that month (Metro had previously improved Green Line service to eight minutes in September 2022, exceeding budgeted headway goals for the year for that line).

77% of bus service on-time, missing target of no less than **78%**

Bus On-Time Performance (OTP) fluctuated this year, hitting low points in the fall and spring. OTP is closely correlated with traffic patterns, and average speeds in the District of Columbia declined up to three percent from January to June of 2023.

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).

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

OTP started out strong in FY23, dropped in the fall, improved in the winter, and then dropped again in the spring of 2023.

Target: 78%
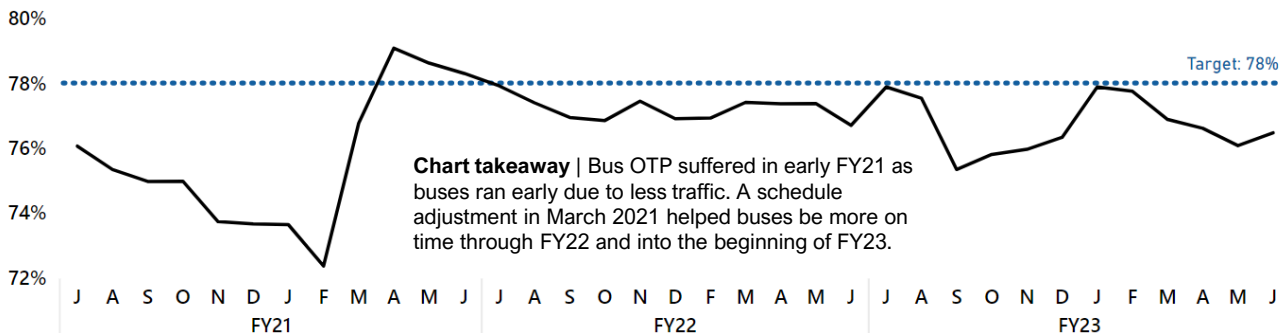
Chart takeaway | Bus OTP suffered in early FY21 as buses ran early due to less traffic. A schedule adjustment in March 2021 helped buses be more on time through FY22 and into the beginning of FY23.

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 J F M A M J
FY21 | FY22 | FY23

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 traffic congestion, construction, special events, and weather.

In Q4, Metro focused on collaboration between the street operations team and the bus control center to address bus bunching in real time, aiming to spread out service to reduce wait times and crowding for customers. Additionally, Metro piloted a project to improve customer information about bus departures by installing electric departure signs at Braddock Road Station.

Metro is also installing new fare boxes and rear-door fare targets on buses. This will eventually allow for boarding at both doors on select routes,

reducing the time buses wait at stops and improving OTP.

METROACCESS ON-TIME PICK-UP PERFORMANCE

● **92.7%** of MetroAccess customers picked up on-time, meeting target of no less than **92%**

Reduced ridership (60 percent of pre-pandemic demand), coupled with high vehicle availability and leveraging Abilities-Ride partners, have led to strong on-time pick-up performance (OTP) in FY23 even as the number of shared rides increased.

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.

MetroAccess OTP against dotted line target

Y: % of on-time stops | X: month
Direction of desired performance: up ↑

Chart takeaway | MetroAccess OTP surged during the pandemic when shared rides were suspended and traffic eased. As normal activities and shared rides resumed, OTP has approached pre-pandemic levels.

Target: 92%

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 J F M A M J
FY21   FY22   FY23
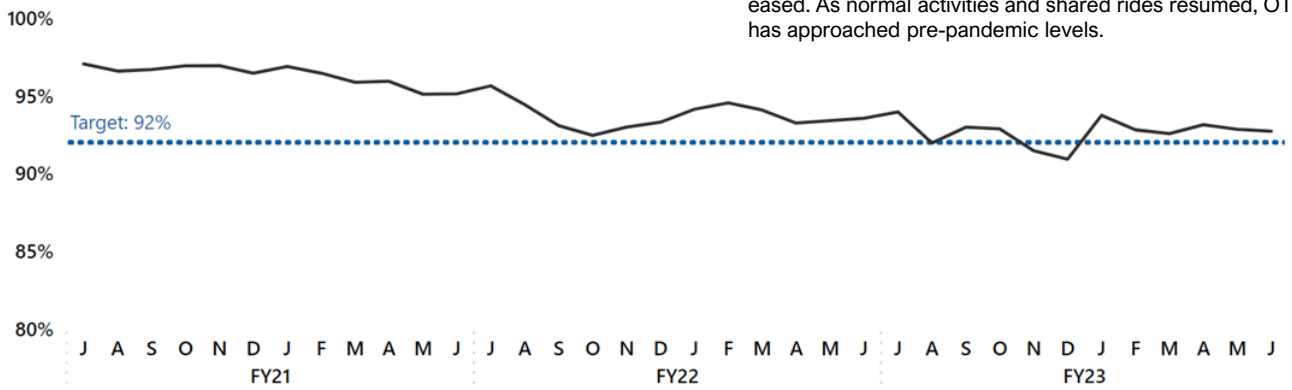
On-time performance met target in FY23, with performance remaining consistent from Q3 (93.0 percent) to Q4 (92.9 percent). One of MetroAccess's key strategies to increase OTP is to dynamically adjust the system's scheduling parameters and leverage available taxis and Ubers when trips are projected late throughout the day.

MetroAccess has assigned more staff dedicated to monitoring a "Late Board" so they can adjust trips that are projected to be late. This helped decrease the rate of excessively late trips from

ELEVATOR AVAILABILITY

● **98.3%** of elevators available on average, meeting target of at least **97.5%**

During the fiscal year, about five of the 320 elevators in the system were out of service for maintenance at any given time. About one-third of hours out of service were the result of planned capital work to rehabilitate or replace older units 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 | Elevator availability has seen strong performance over the past two years, reaching a high point in February 2023. Q4 saw a slight decrease in performance from Q3 but is still meeting target.
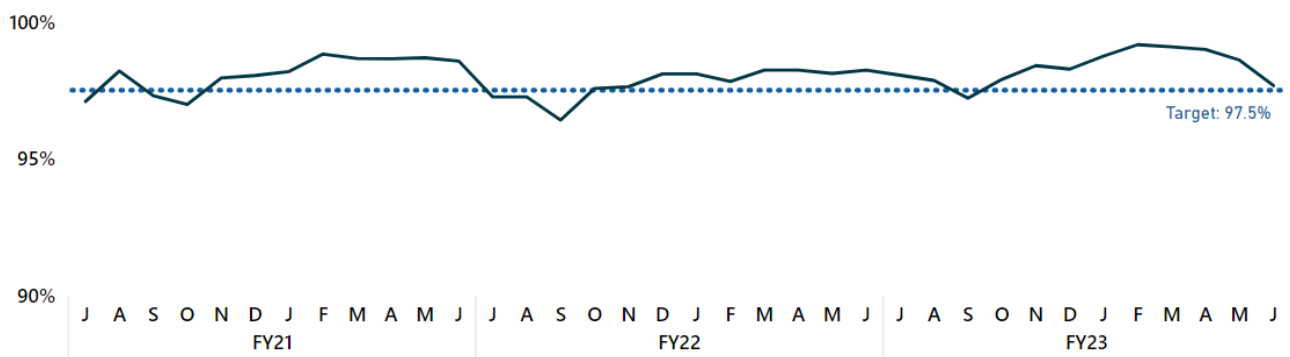
Metro continues to make progress on a 2014 contract to replace 102 elevators—over a third of all units. By the end of FY23, all but one of the 102 elevators had been replaced. The remaining one is slated for completion in early FY24.

Elevator Availability Breakdown
FY23

Chart takeaway | Over two-thirds of the hours that elevators were unavailable were due to non-capital work such as unit failures, related fixes, or preventive maintenance.

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

1.2%
0.5%
98.3%
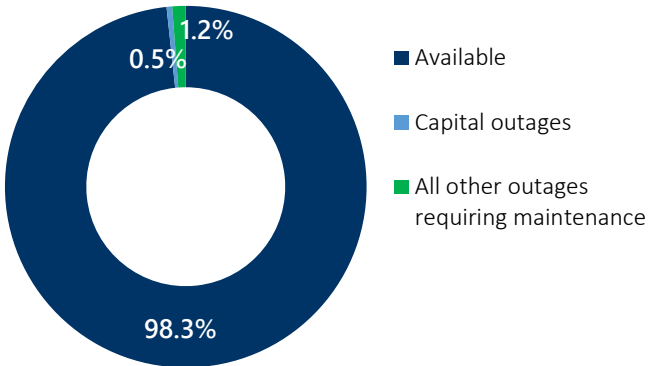
ESCALATOR AVAILABILITY

● **93.6%** of escalators available on average, meeting target of at least **92.9%**

About 41 of Metro's 647 escalators were out at any given time during FY23. Escalator availability has improved each quarter throughout the fiscal year. Slightly over half of the time out of service this year was due to planned capital rehabilitations and replacements, and the rest was due to unplanned outages.

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
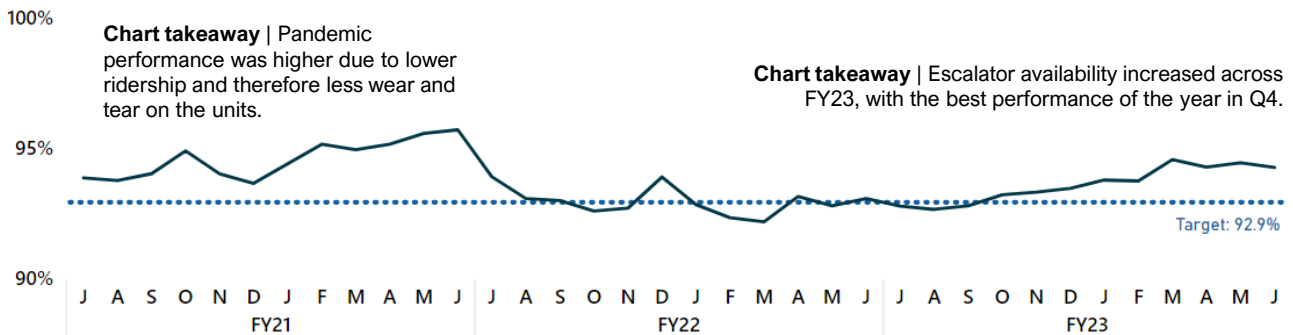Y: % availability | X: month
Direction of desired performance: up ↑

Chart takeaway | Pandemic performance was higher due to lower ridership and therefore less wear and tear on the units.

Chart takeaway | Escalator availability increased across FY23, with the best performance of the year in Q4.

Target: 92.9%

FY21 FY22 FY23

Consistent with Q3, capital improvements to the system accounted for 55 percent of outage hours in Q4. The time units were out of service for unplanned outages—to address failures or conduct preventive maintenance—remained consistent from Q3 to Q4. Units broke down about three percent less frequently – running on average roughly 14 days between failure. The average time to repair an escalator increased by five percent to five hours and 45 minutes.

Metro continues its multi-year contract to replace 130 escalators across the system, with 58 completed since April 2021. The new escalators include improved safety features such as LED lighting and anti-microbial handrails, as well as Variable Frequency Drives that will help to save energy and allow the escalators to run more smoothly.

Escalator Availability Breakdown
FY23

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

- 2.9%
- 3.5%
- 93.6%

■ Available
■ Capital outages
■ All other outages requiring maintenance
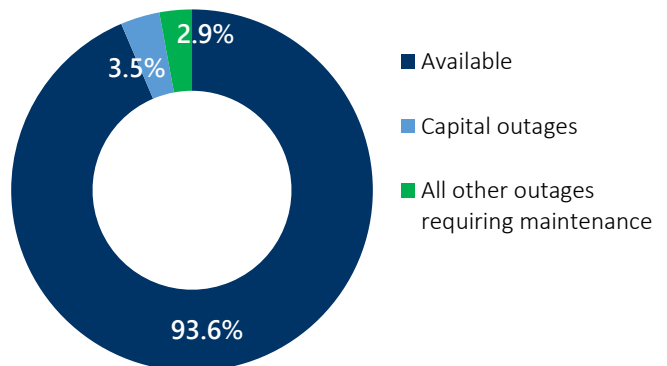
⬤ **0.5%** of passenger time in crowded conditions through FY23 Q4 (no target in FY23; lower values are better)

Metrorail crowding decreased in Q4 after a spike in the spring, in part due to service increases this quarter. Metrorail trips are up 33 percent since Q1, helping to keep crowding in check despite increasing ridership throughout the fiscal year.

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.
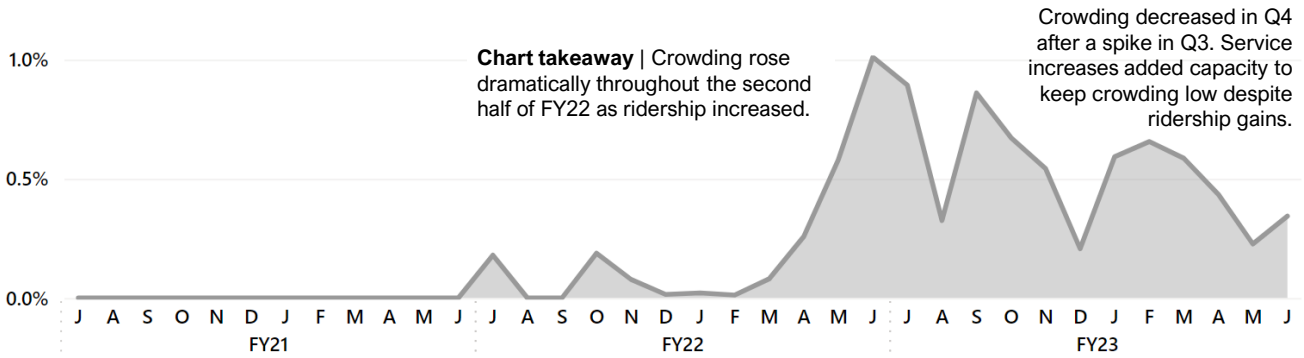
Rail Crowding

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 decreased in Q4 after a spike in Q3. Service increases added capacity to keep crowding low despite ridership gains.

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 service following 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. After a seasonal dip in Q2, crowding increased in Q3 as ridership returned. In Q4, Metrorail increased its service levels to keep pace with rising ridership.

However, even as ridership approaches pre-pandemic levels, crowding is limited to specific locations and times in the system. For example, a customer riding between Metro Center and Gallery Place is 12 times more likely to experience crowding than the system average.

Rail crowding by line | FY23

Line	%
RD	0.9%
OR	0.6%
SV	0.3%
GR	0.3%
BL	0.2%
YL	

Chart takeaway | The Red Line had the highest percent of passenger time spent in crowded conditions, followed by the Orange 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 Court House.

2.5% of passenger time in crowded conditions in FY23 (no target in FY23; lower values are better)

Metrobus crowding increased from 2.5 percent in Q3 to 2.8 percent in Q4 and hit an eight-month high in May. The increase in Q4 aligns with ridership increases that took place during this time – Metrobus recorded its highest ridership month since the pandemic in May.

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** ↓*

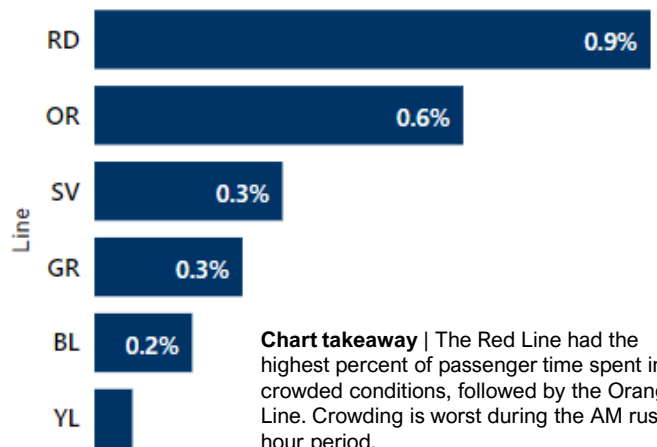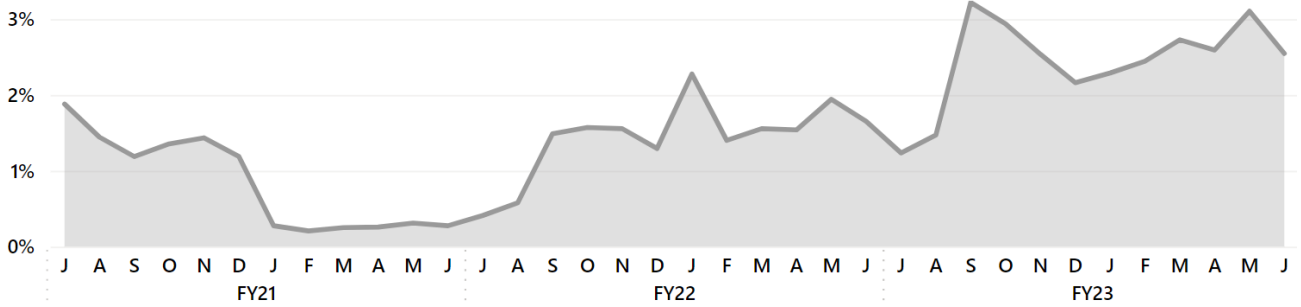**Chart takeaway** | Crowding increased in Q3 and Q4 of FY23 following a seasonal dip in Q2

At the beginning of FY23, Metro returned to the pre-pandemic definition of crowding outlined in the WMATA Bus Service Guidelines: 120 percent of the seated capacity of a bus (48 passengers in a 40-foot bus) during rush hours for bus rapid transit, framework, and coverage routes*; and 100 percent 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 out of 196 routes accounting for most of the crowding in the system and the remaining 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 FY23. Six of the top 10 routes are school routes.

Bus crowding by route | Most crowded routes, FY23

Route	%
D31	50.1%
D33	41.5%
D32	31.9%
W47	16.2%
W2	14.0%
W45	13.9%
D34	11.4%
54	9.4%
W1	8.2%
52	7.8%

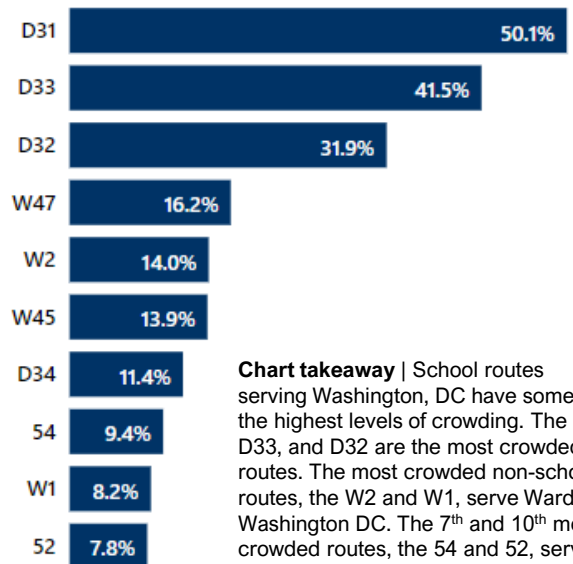**Chart takeaway** | School routes serving Washington, DC have some of the highest levels of crowding. The D31, D33, and D32 are the most crowded routes. The most crowded non-school routes, the W2 and W1, serve Ward 8 in Washington DC. The 7th and 10th most crowded routes, the 54 and 52, serve 14th Street NW in DC.

*See pages 5-6 of the Metrobus Service Guidelines for explanations of these route types.

RAIL FLEET RELIABILITY

🔴 7000-series fleet: **50,006** miles between failure, missing target of at least **56,500**

7000-series reliability gradually increased over FY23 as more trains returned to service. Reliability in Q4 surged to 68,798, surpassing target by a significant margin. By June 2023 Metro was consistently running 50 or more of these trains per day, up from eight in July 2022. The reliability of the 7000-series fleet in FY23 was over two times better than 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 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 2022 and reliability has improved. This trend is expected to continue as more of the fleet returns to service.

🔵 Legacy fleet: **19,491** 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 57 percent of service through 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 ↑
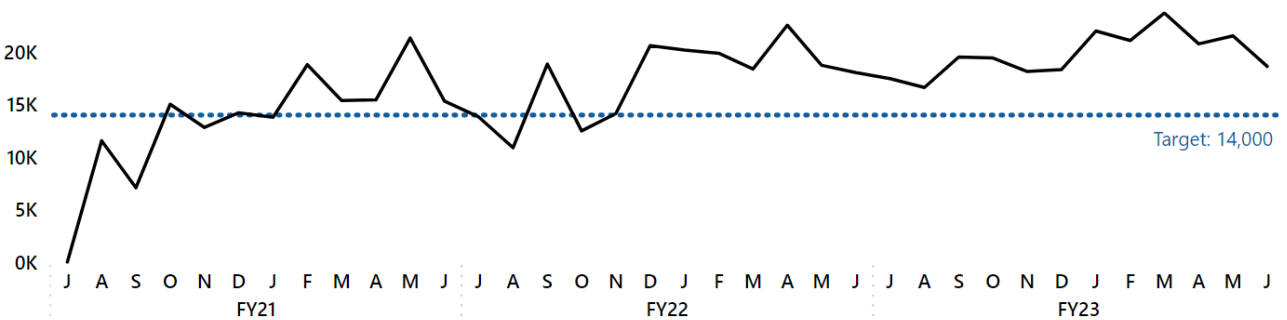
Chart takeaway | Legacy fleet reliability remained strong and exceeded the target through FY23.

BUS FLEET RELIABILITY

7,767 miles between failure FY23, missing target of **8,000**

While average performance this fiscal year is below target, reliability improved over most of the year and remained close to target. Results vary by fuel type: The clean diesel fleet, which includes Metro's newest buses, performed at 11,038 miles between failure, followed by the CNG fleet (8,560 miles) and the hybrid fleet (6,345 miles), Metro's oldest buses.

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 five 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
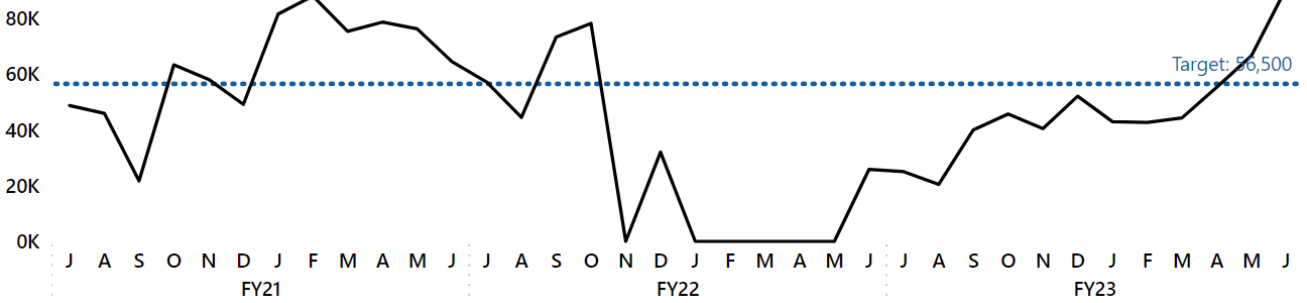*Direction of desired performance:* **up** ↑
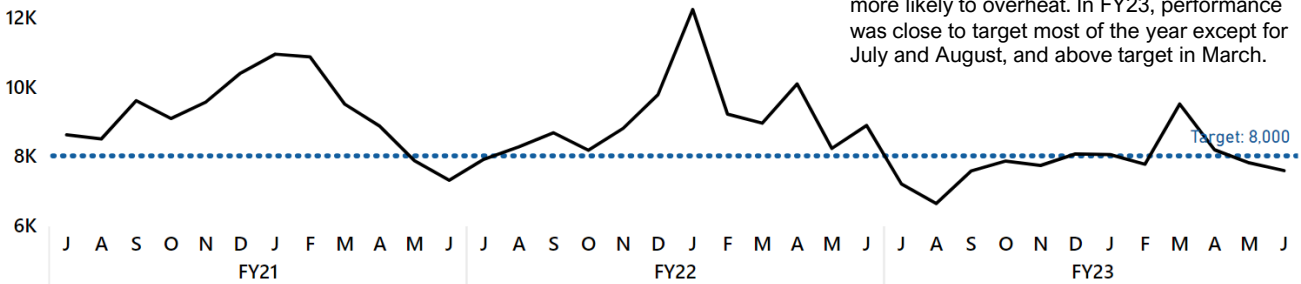
Chart takeaway | Bus fleet reliability is worse in the hottest months because engines are more likely to overheat. In FY23, performance was close to target most of the year except for July and August, and above target in March.

Target: 8,000

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 J F M A M J
FY21 | FY22 | FY23

Bus fleet reliability is seasonal, generally improving in winter and worsening in summer because high temperatures can cause bus engines to overheat.

After delays from the ongoing global supply chain challenges, Metro was able to order enough parts to put 50 buses (higher than was forecasted) through our "midlife overhaul" program, which extends the working lives of buses in our fleet.

Additionally, Metro has put 16 new buses into service which feature "infotainment" screens and USB charging ports. Metro also received its first new 60-foot electric bus in June 2023, the beginning of Metro's program to electrify the fleet.

METROACCESS FLEET RELIABILITY

● **25,500** miles between failure, meeting target of at least **22,000**

MetroAccess has sustained high levels of reliability in FY23 by consistently replacing vans at the end of their useful life. Staff plans to continue to replace vans with sedans, which have shown fewer maintenance-related issues. Additionally, MetroAccess will be adding ramp-equipped minivans to the fleet in FY24.

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.

MetroAccess 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

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FY21 · FY22 · FY23
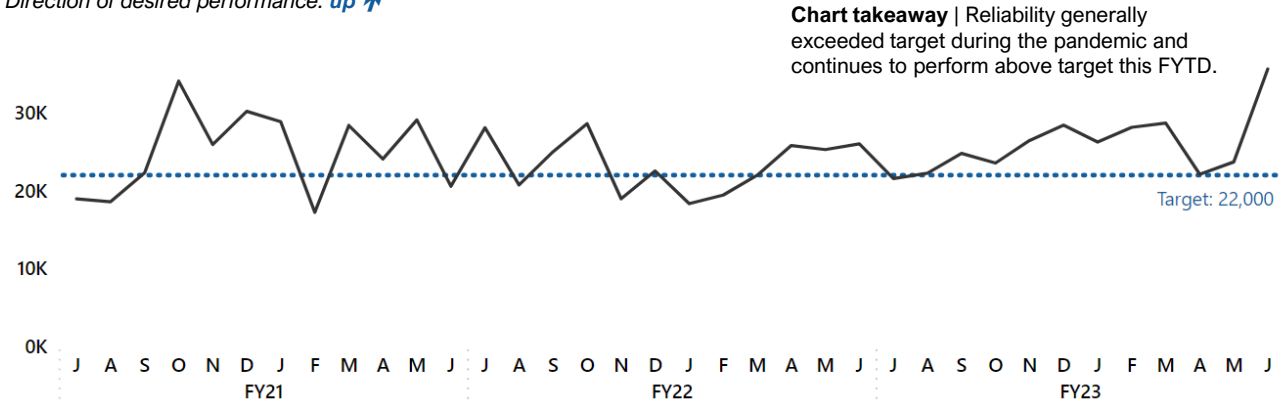
To sustain strong fleet reliability, MetroAccess retired 12 vehicles in Q4. Sedans are more reliable both because they are new and because they have fewer parts than vans that could cause failures. Up to 200 ramp-equipped minivans are scheduled to replace 200 aging vans in FY24. MetroAccess also conducts quarterly third-party audits to assess the overall condition of the vehicles, which are maintained by the department's contractors.

7.7 Part 1 crimes per million passengers, missing target of no more than **6.5**

Part 1 crime fell 20 percent from February to June after an early-2023 spike largely driven by higher rates of motor vehicle thefts and robberies. In Q3, Metro entered a joint safety partnership with other agencies to increase patrols on 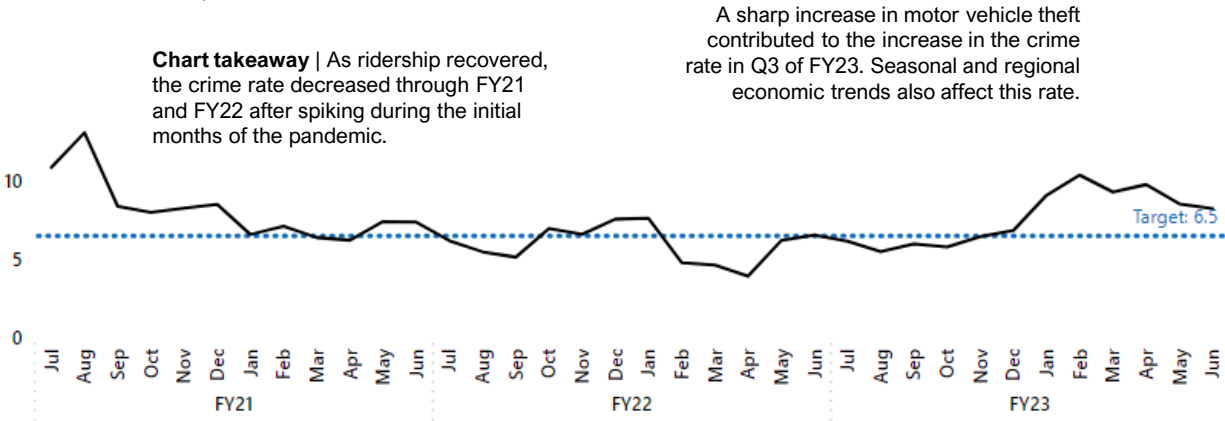the system, leading to an extra 66 officers and special police officers in the system per tour of duty, with 33 Metro stations staffed by these extra officers.

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 | As ridership recovered, the crime rate decreased through FY21 and FY22 after spiking during the initial months of the pandemic.

A sharp increase in motor vehicle theft contributed to the increase in the crime rate in Q3 of FY23. Seasonal and regional economic trends also affect this rate.
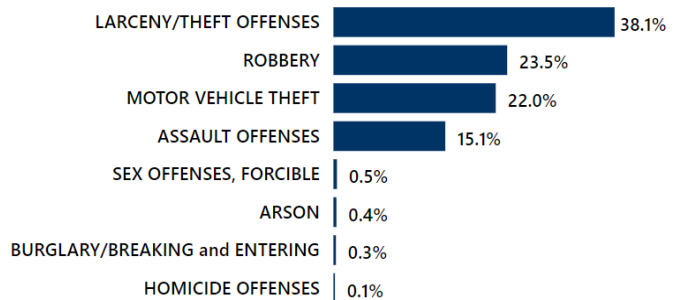

There are two main types of Part 1 crimes: crimes against persons and crimes against property. The rate of *crimes against persons* continued to fall, with about 1.2 crimes per million passengers compared to 1.5 the same time last year. The rate of *crimes against property* was up, with 6.5 crimes per million passengers in Q3 compared to 4.2 the same time last year.

There were a total of 1,480 Part 1 crimes in FY23. Fifty-six percent of these crimes occurred in the rail system, 29 percent in Metro parking lots, and 12 percent on buses or at bus stops. Larceny crimes accounted for 38 percent of all Part 1 crimes in FY23, followed by robbery and motor vehicle theft (see the chart to the right). Parling lot crimes more than tripled in the last six months of the fiscal year (January – June 2023) compared to the first six months, with motor vehicle thefts going up sixfold.

In April, Metro Transit Police Department's (MTPD) used the Scanning, Analysis, Response, and Assessment—or SARA—model to develop a Robbery Suppression plan that included high visibility train patrols and Point of Entry policing at the fare gates. Additionally, five Crisis Intervention Specialists interacted with over 1,000 people since the start of their role in Q2 and Q3. Metro is planning to hire five additional staff for the program in Fall 2023.

Part 1 Crimes by type | Percent of total, FY23

LARCENY/THEFT OFFENSES	38.1%
ROBBERY	23.5%
MOTOR VEHICLE THEFT	22.0%
ASSAULT OFFENSES	15.1%
SEX OFFENSES, FORCIBLE	0.5%
ARSON	0.4%
BURGLARY/BREAKING and ENTERING	0.3%
HOMICIDE OFFENSES	0.1%

66 of 86

RAIL SYSTEM SAFETY EVENTS

🔴 **5.3** Rail safety events per 10 million revenue miles, missing target of no more than **3.9**

There were 39 major safety events FY23. Ten of these incidents occurred in Q4, which was an increase from the six incidents that occurred during Q3.

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 | Rail safety event rate spiked slightly in April but decreased to 3.8 in June.
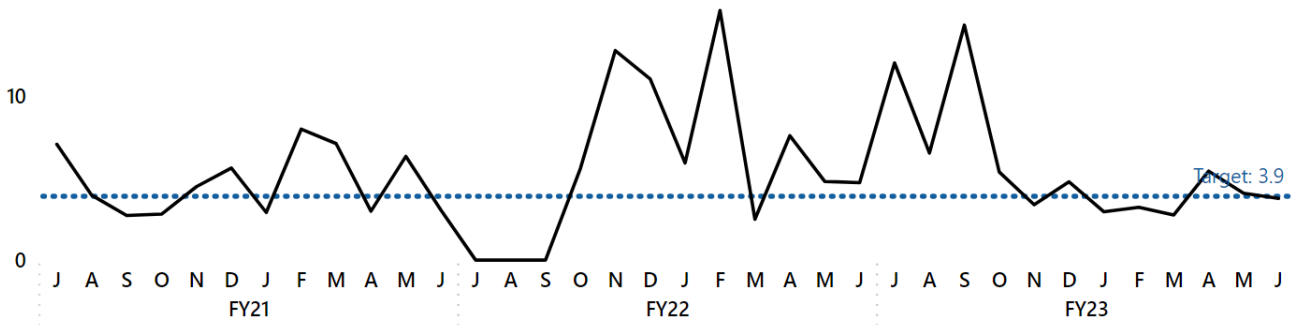
Thirteen NTD-reportable major events were smoke/fire incidents, ten involved persons struck by trains, seven were maintenance vehicle derailments, one involved a collision between a train and a MTPD vehicle in a yard, one involved a collision between two non-revenue vehicles, and one involved an employee injury. There were five gas leak incidents and one customer-caused event. All five of the gas leak incidents, two of the smoke and fire incidents, and the customer-caused incident all resulted in evacuations.

Prevention of incidents where customers are struck by trains is a high priority for Metro. The Crisis Intervention Program began in December of this year, and currently includes five specialists who patrol stations with high populations and are transfer stations, such as Gallery Place and Metro Center. The team has successfully helped individuals throughout the system and will be

growing in size and holding outreach events to increase their impact. The communications team is also available 24/7 at the MyMTPD phone number to assist where needed.

In addition, the Suicide and Crisis Lifeline number is available throughout stations, due to efforts by Metro's Suicide Prevention and Awareness Taskforce.

There were seven more major NTD-reportable smoke and fire events in FY23 than there were in FY22. Only one of these was an arcing insulator event. There is an ongoing two-year insulator replacement program on the Red Line. This program will help to mitigate fires that are caused by arcing insulators.

BUS SAFETY EVENTS

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

There were 185 major bus-related safety events among the 37.9 million revenue miles traveled in FY23. Out of these, 177 were collisions, four were fires, and four were 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 better than target for the past two and a half years except for a few months where incidents spiked, including July, September, and May of FY23.
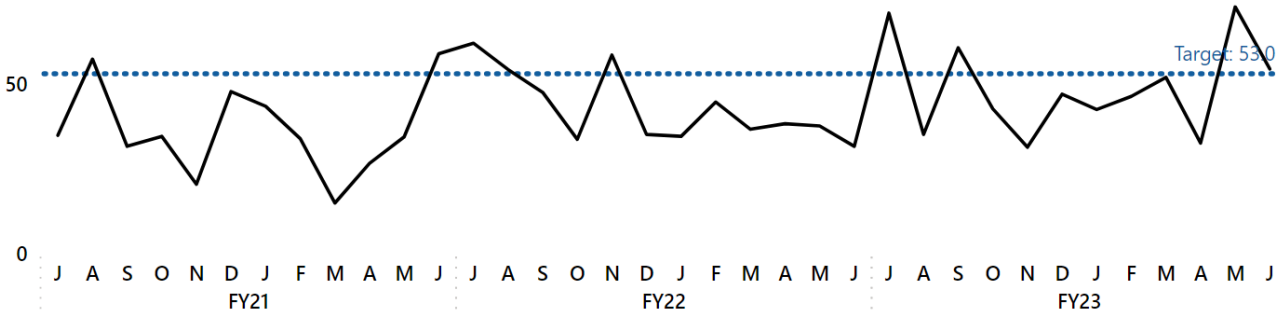
Major bus safety events result in injuries that require at least one person to be transported from the scene for medical attention or result in major damage to the bus or another vehicle. There were 177 bus collisions in FY23 that met these criteria. Metro's investigations determined that about two-thirds of them were non-preventable.

Reducing collisions is a high priority for Metrobus. In Q4, Metro held four "safety blitzes" in higher-risk locations identified by bus operator concerns about potential hazards.

Additionally, Metro conducted a video campaign at all bus divisions that provided tips to keep pedestrians and bicyclists on the roadway safe. Metro also conducted fatigue management workshops at the bus divisions to refresh bus operators on strategies to identify and manage fatigue.

METROACCESS SAFETY EVENTS

🟠 **28.5** MetroAccess safety events per 10 million revenue miles, missing target of no more than **19.5**

There were 54 major safety events for MetroAccess in FY23, compared to 56 in FY22. Fifty-two 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.

MetroAccess 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 due to increased collisions.

Target: 19.5
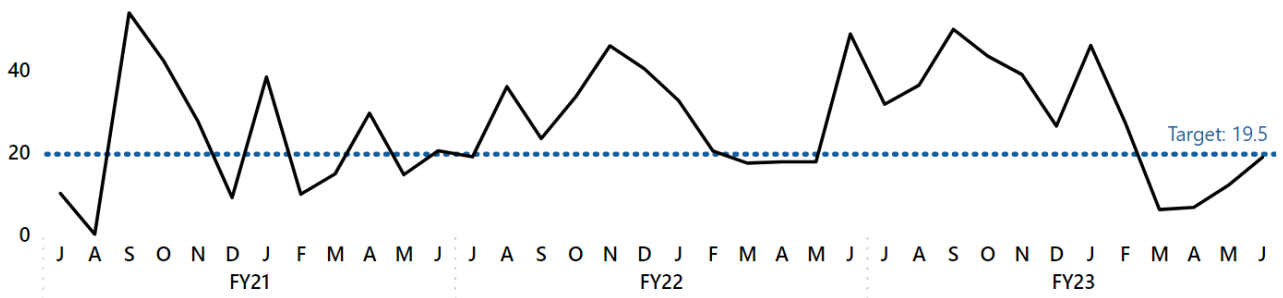
Although the safety event rate missed target, major safety events are trending downward overall – from 12 safety events in Q3 to six in Q4.

MetroAccess launched its *Incident Free in '23* safety campaign in July 2022: broadcasting daily safety messages over the in-vehicle radio and including them on trip manifest coversheets. Monthly campaign themes for Q4 were customer service, overhead clearance, and adjusting to surroundings. In October, MetroAccess also conducted its first annual Safety Summit with contractor leadership, safety staff, and operators. During the summit, Metro managers and contractor leadership developed a vision for safety in MetroAccess service and reviewed how to create a safety culture, including leveraging data tools to identify training opportunities, monitoring incident trends, and better allocating road supervisor resources to respond to incidents in a timelier manner.

In addition, MetroAccess implemented a "Ready for Work" checklist last quarter that requires all operators to be interviewed before going into service, reducing the likelihood of a preventable collision from non-alertness.

MetroAccess continues to strengthen 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.

To address collision-related incidents, MetroAccess continues to update DriveCam units (620 total). MetroAccess also activated in-vehicle behavior recognition and alerting capability focused on distractions. This technology alerts vehicle operators about unsafe or potentially unsafe behaviors at the time of detection and creates an event clip for coaching.

RAIL SYSTEM CUSTOMER INJURIES

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

There were 92 customer injuries (those requiring transport away from the scene) in the rail system during FY23. Eighty-one—or 88 percent—of these were slips/trips/falls, 60 percent of which 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 | The customer injury rate was high in the second half of FY22 as injuries increased and vehicle revenue miles decreased. As vehicle revenue miles climbed again through FY23, injury rate fell back to levels consistent with FY21.

Target: 20.6

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FY21   FY22   FY23
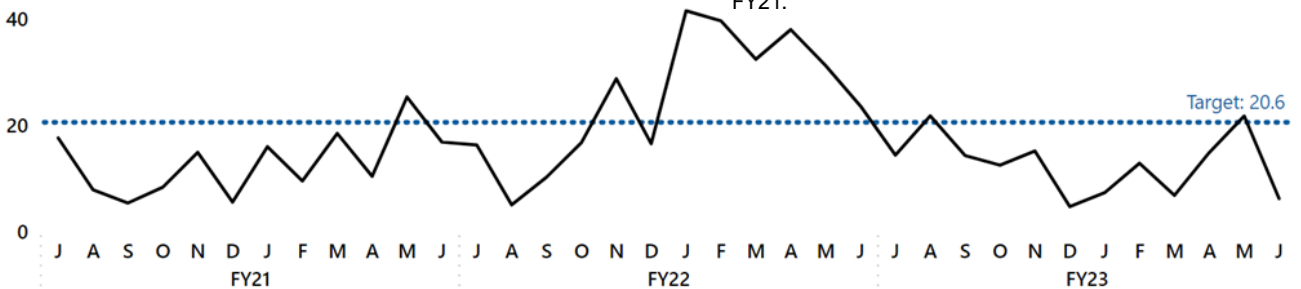
The remaining injuries included six incidents involving persons struck by a train, two customers injured when they went on the roadway, two customer assaults, and one customer trapped in an elevator.

Trespassing increased in FY23, both on the railway and other areas of stations, which increases risk of injury. The internet trend of "train surfing" (where an individual rides on the top of a train) has led to injuries and deaths not just at Metro, but at other transit agencies across the country.

Metro's Elevator/Escalator team, working with the Safety Department, continued its pilot signage campaign in Q4. So far, Metro has installed signs with safety guidelines for customers on the ends of escalators at L'Enfant, Foggy Bottom, Bethesda, and Dulles stations.

BUS CUSTOMER INJURIES

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

There were 199 bus customer injuries in FY23: 106 slip/trip/falls, 80 related to collisions, and 13 other injuries. Many of the slip/trip/fall injuries occur due to boarding/alighting the bus, 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, starting in October 2022, the customer injury rate declined to be more in line with the rate in 2021 and has remained below target except for May 2023.

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 J F M A M J
FY21 · FY22 · FY23
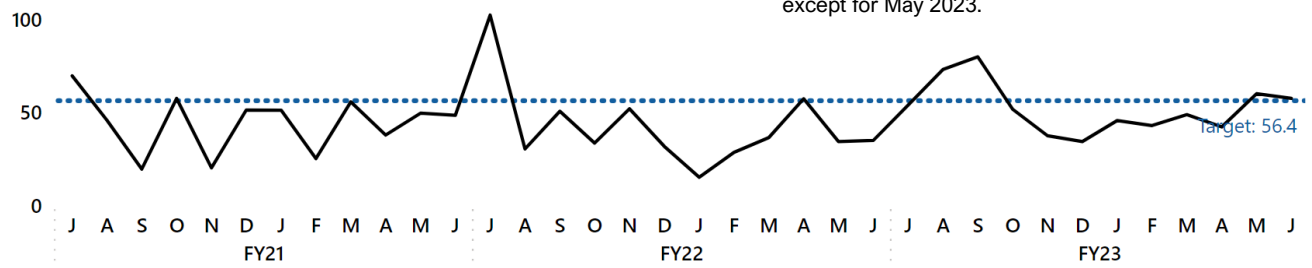
The two highest risks to bus customer safety are bus collisions and customers falling on the bus due to bus motion or hard braking. Staff consistently focus on these two areas to improve safety at Metro.

Supervisors continue to ride the buses with operators to remind and coach operators about strategies and behaviors to reduce customer falls on the bus (for example, maintaining proper following distance to prevent hard braking).

Additionally, Metrobus utilized its DriveCam system (which records via camera possible risky behaviors while operators are driving to identify trends) to create a working group to identify policy and process improvements to address those trends. Metrobus also worked collaboratively with operators to review incidents and implement a plan to improve.

Note: Metro tracks and reports fatalities in addition to injuries. The fatality metric does not include suicides or homicides. 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 and works to prevent all collisions and contribute to a safe driving environment on its roadways.

METROACCESS CUSTOMER INJURIES

13.7 MetroAccess customer injuries per 10 million revenue miles, meeting target of no more than **15.6**

Twenty-six MetroAccess customers were injured in FY23, compared to 21 in FY22. Eighteen injuries were related to collisions and six were slips/trips/falls. The customer injury rate met target in all three months of Q4 FY23. Sixty-five percent of injuries were from non-preventable causes.

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.

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

Chart takeaway | FY23 had a slightly higher injury rate than FY22, but fell lower in the last four months of the year.
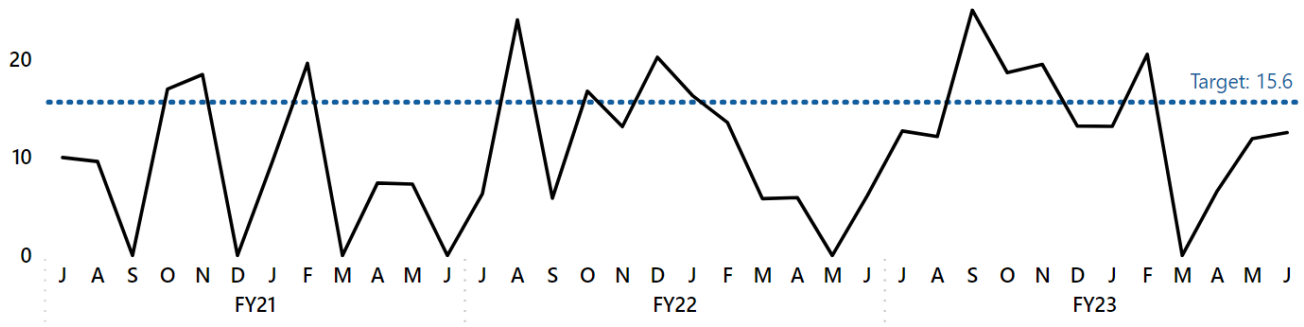
To help drive down customer injuries, MetroAccess has begun sharing safety messages with customers when they book an appointment. The themes of these messages include being more aware of one's surroundings, allowing assistance from the operator, and taking precautions during severe weather. The customer safety message is different each month.

To decrease injuries related to wheelchair securement and door-to-door service, MetroAccess created and issued securement training and door-to-door training videos with an occupational therapist, and implemented a requirement that all operators renew their wheelchair securement certification twice per year, approximately every six months. Because of reduced ridership, operators can sometimes go long periods of time without securing a

customer's wheelchair in the vehicle. This can dull their ability to safely secure wheelchairs. In the first half of FY23, 1,146 out of 1,150 active operators, over 99 percent, have current certifications. The other operators will not be placed in service until re-certification/initial certification is completed.

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

Fourteen rail employee assaults and 41 customer assaults occurred during FY23, a decrease from 18 employee assaults and 47 customer assaults during FY22. The assault rate met target all three months of Q4.

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
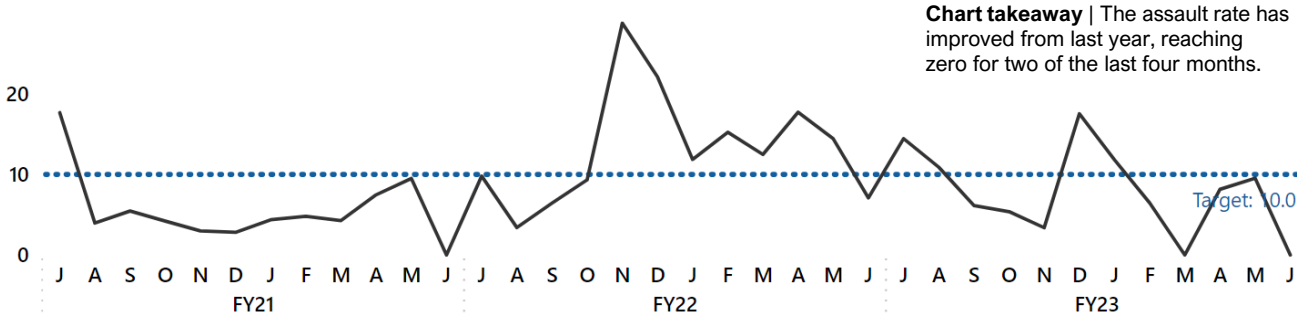*Direction of desired performance: down* ⬇

Chart takeaway | The assault rate has improved from last year, reaching zero for two of the last four months.

Target: 10.0

In total, there were ten fewer Metrorail assaults this year compared to last year. In an ongoing effort to avoid potentially unsafe situations for Rail Station Managers, both Station Managers and Rail Supervisors have been participating in de-escalation training and learning dispute resolution strategies. So far, 678 Station Managers and Rail Operations Supervisors have completed de-escalation training.

Metro has been taking steps to address the risk of gun violence, which has been increasing in the surrounding community. Metro's partnership with DC's Metropolitan Police Department and other regional agencies continues, reducing response times and increasing police visibility. Crisis Intervention Specialists continue to patrol stations and are trained to interact with customers in need and help de-escalate situations. The Employee Assistance Program offers support to employees as well.

The Metro Ambassadors Program also began this year, providing additional visibility throughout the Metrorail system. Ambassadors provide directions and updates to riders and help during emergencies.

BUS EMPLOYEE/CUSTOMER ASSAULTS

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

There were 49 bus customer assaults and five bus employee assaults in FY23, compared to 27 customer and nine employee assaults in 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** ⬇*
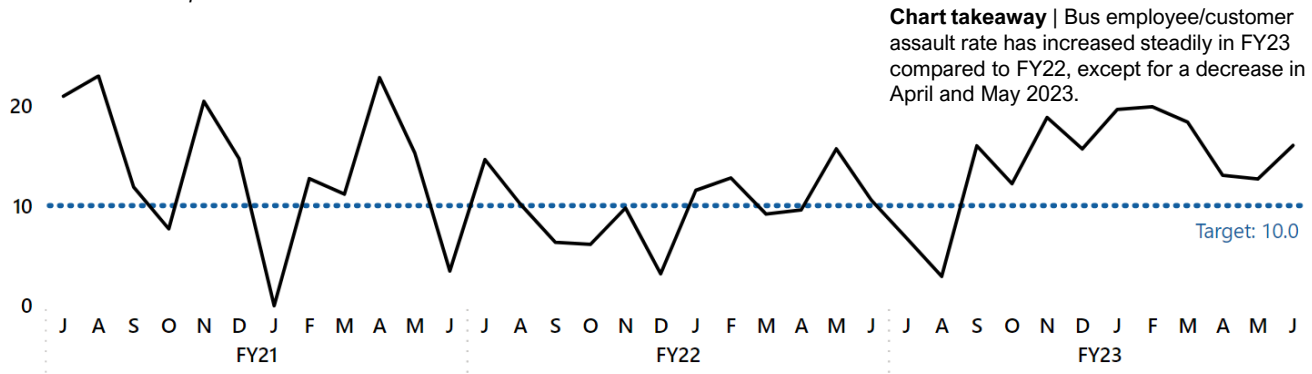
Chart takeaway | Bus employee/customer assault rate has increased steadily in FY23 compared to FY22, except for a decrease in April and May 2023.

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 J F M A M J
FY21   FY22   FY23

Overall, bus operator assaults in FY23 decreased from FY22. Metro continues to coach operators in de-escalating interactions with customers. Additionally, the Metro Transit Police continue to attend bus operator safety committees to collaborate with bus operators on safety concerns.

Customer assaults on Metrobus increased 80 percent in FY23 compared to FY22. Metro Transit Police increased their presence on bus routes and locations where incidents of crime has been higher.

RAIL EMPLOYEE INJURIES

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

There were 228 injuries reported by rail system employees reported during FY23. The most common injury type was slip/trip/fall injuries, of which there were 59. This was closely followed by stress injuries (58) and then struck by/against (40).

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
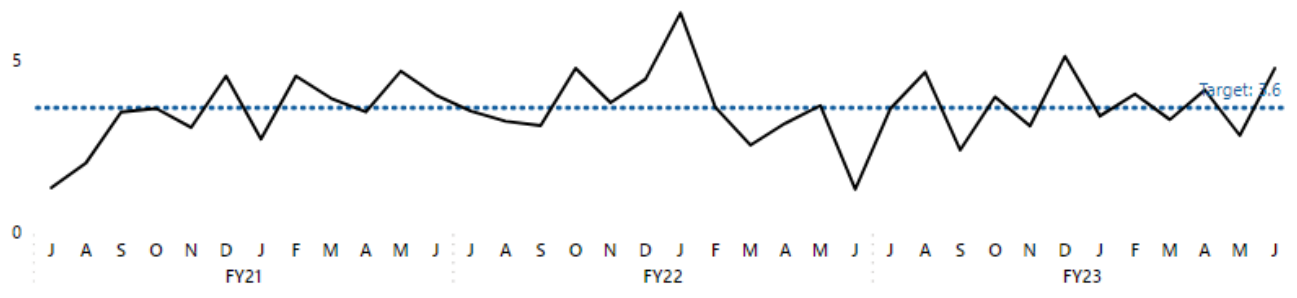*Direction of desired performance: **down** ⬇*

Chart takeaway | Rail employee injury rate decreased throughout Q3 and Q4, before spiking in June.

Stress cases have remained consistently higher each quarter in FY23 than during FY22. There was a 49 percent increase in stress cases this year compared to last year. Stress injuries most frequently occur due to witnessing violence in the system, or witnessing an individual being hit by a train.

Train operators account for 24 percent of all rail system injuries and station managers account for 21 percent. Stress injuries were the most common injury type for both of these roles, making up 46 percent of injuries reported by these employees.

Metro's partnership with DC Metropolitan Police Department, as well as Crisis Intervention Specialists, look to combat these rising numbers.

Employee slips/trips/falls have increased by 34 percent from FY22. The largest proportion of these incidents occurred on trains (often involving exits) or while employees were walking on the rail right of way.

BUS EMPLOYEE INJURIES

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

There were 519 bus employee injury reports in FY23. Collision-related injuries (162) were the most common, followed by stress injuries (149) and slip/trip/falls (64).

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 employees include operators, supervisors, and maintenance staff.

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 remained above target for all of FY23 except December.
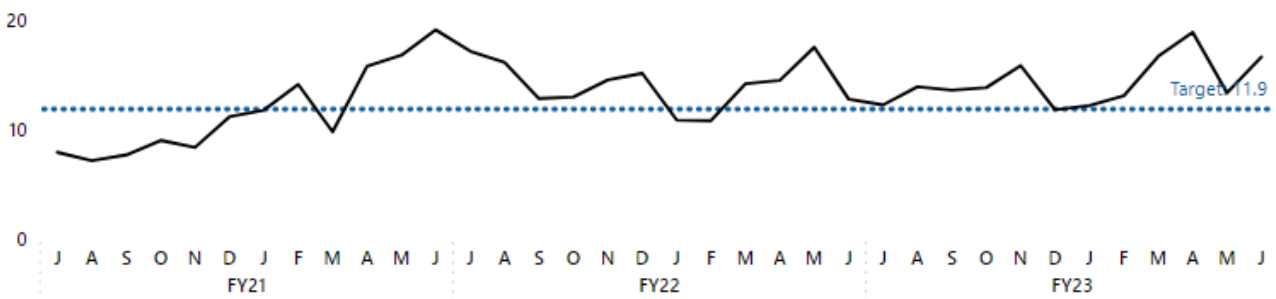
At Metro, all employees are responsible for safety and have the right and the responsibility to make recommendations to improve. Metro practices that commitment by holding safety committee meetings with safety staff, supervisors, and bus operators to collaboratively identify hazards and concerns and develop plans to address them.

In Q4, Metro installed bicycle lockers in bus divisions so that bus operators would no longer have to carry bicycles upstairs to lock them up. This measure aims to reduce employee injuries due to lifting the bicycles or to slipping on the stairs. Additionally, Metro has ensured the process for offering Employee Assistance is clear for all supervisors so that employees experiencing stress are provided support and resources.

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 missed = 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

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 Bus Rapid Transit, framework, and coverage routes (see pages 5-6 of the Metrobus Service Guidelines for explanations of these route types), 100% off peak and at all times on 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 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.

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.

*Note that before FY23 and prior, Metro calculated this measure using rail *revenue* miles. Metro switched to using rail *total* miles in FY24. The difference between both is minimal.

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 ten million miles driven while vehicles are in revenue service

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

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. It also includes all fatalities that occur in a collision involving a Metro vehicle, including those in other vehicles who are not Metro customers or employees.

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.