



Quarterly Service Performance Review 3rd Quarter, FY23 (January- March 2023)

Engineering & Operations Committee
June 22, 2023





Service Performance

Service Delivery

Capacity

- Weekday - Average Ridership
- Dispatches Operated
- Passenger Loading

Punctuality

- On-time – Customer
 - Daily / Peak
- On-time – Train
 - Daily / Peak
 - Timed Train Meets - K-Line

Railway Asset Availability

Revenue Fleet

- Revenue Fleet - Fleet Reliability
 - 4 AM - Car Availability
 - Vehicle MTBSD - (Hours)

Wayside

- Wayside - Train Control Systems
 - Wayside Train Control System
 - Control System
- Wayside - Railway Systems
 - Track
 - Traction Power

Operations

- Transportation Staffing

Stations

- Availability – Elevators
- Availability – Escalators
- Availability – Fare Collection

Customer Experience

Customer Service

- Customer Service
 - Overall Customer Satisfaction
 - Station Agent Customer Service
 - Complaints

Environment

- Environment – Stations
 - Outside
 - Inside
- Environment – Trains
 - Cleanliness
 - Temperature
- Environment – Code of Conduct
 - Gender Based Harassment
 - Fare Evasion

Safety and Security

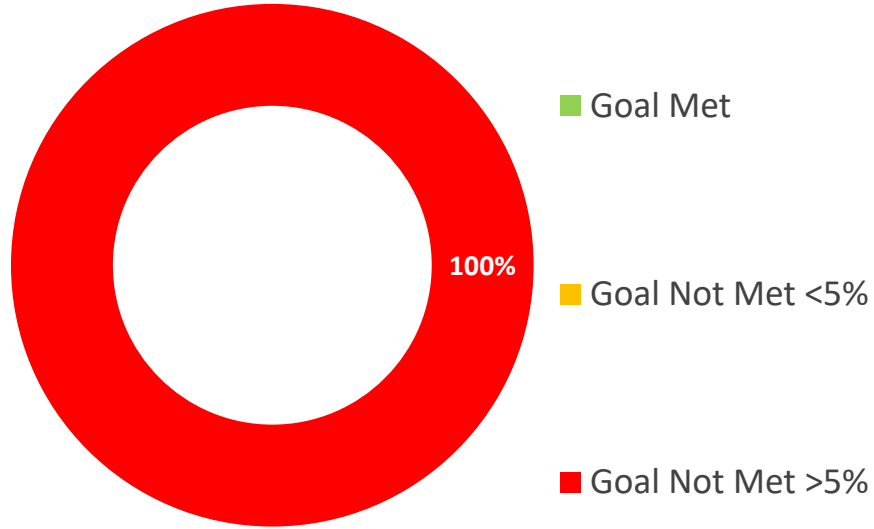
Safety

- Safety – Passenger
 - Station Incidents
 - Vehicle Incidents
- Safety – Employee
 - Lost Time Injuries
 - OSHA Recordable Injuries
- Safety – Violations
 - Unscheduled Door Openings
 - OSHA Recordable Injuries

Security

- Police Coverage
 - BPD Presence
 - BPD Response Time
- Crime – Against Person
- Crime – Burglary
 - Bike Thefts
 - Auto Burglaries
 - Auto Thefts
- Progressive Policing

Summary – Service Delivery

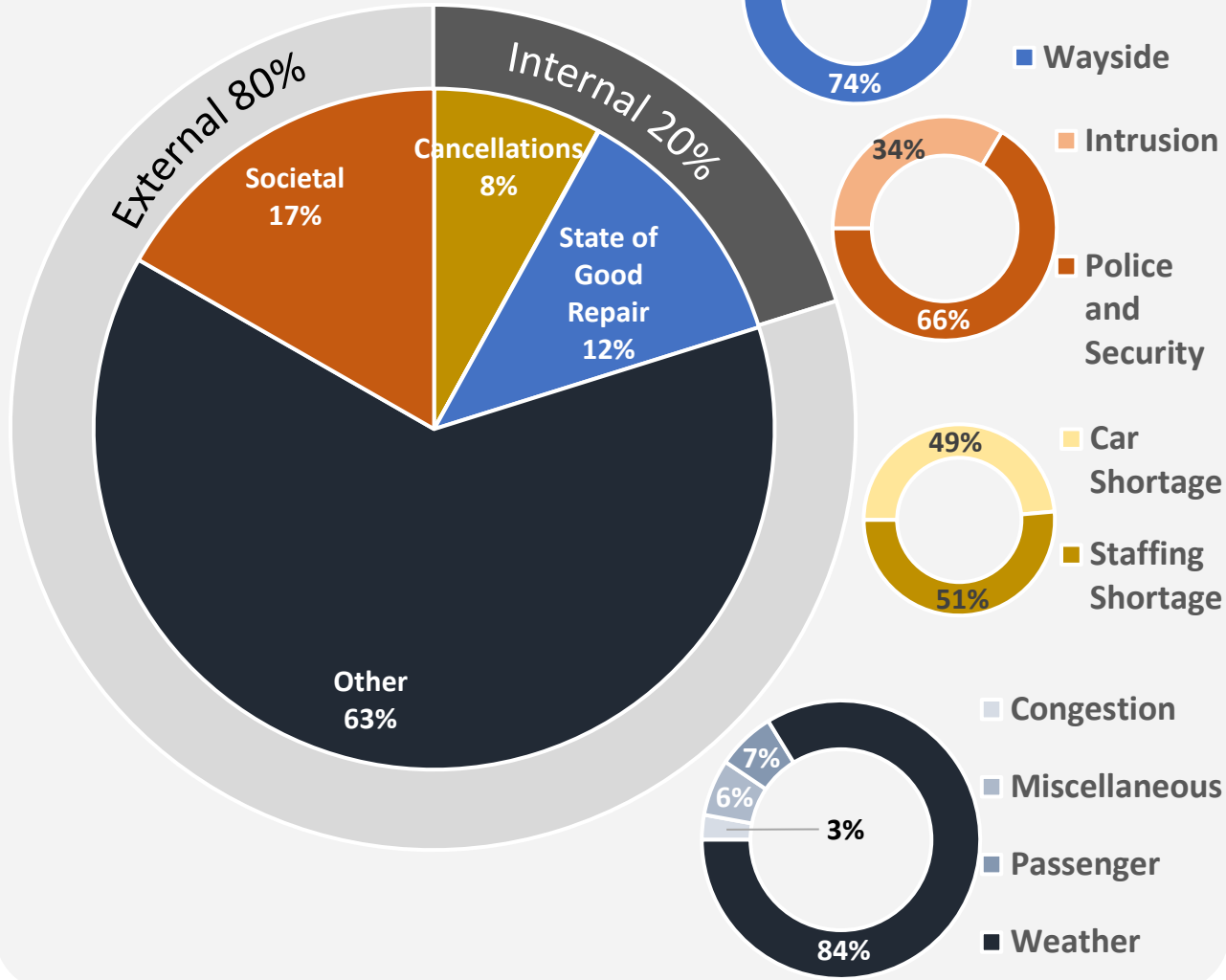


Metric	FY23 Q3	Goal	Change from FY23 Q2	
<i>All-Day</i>				
Weekday - Average Ridership	144295	184718	(1.30%)	▼
Trains On-Time - Daily	56.2%	91.0%	(20.81%)	▼
Customers On-Time - Daily	81.2%	94.0%	(2.73%)	▼
<i>Peak</i>				
Trains On-Time - Peak	52.7%		(23.74%)	▼
Customers On-Time - Peak	74.2%		(12.23%)	▼

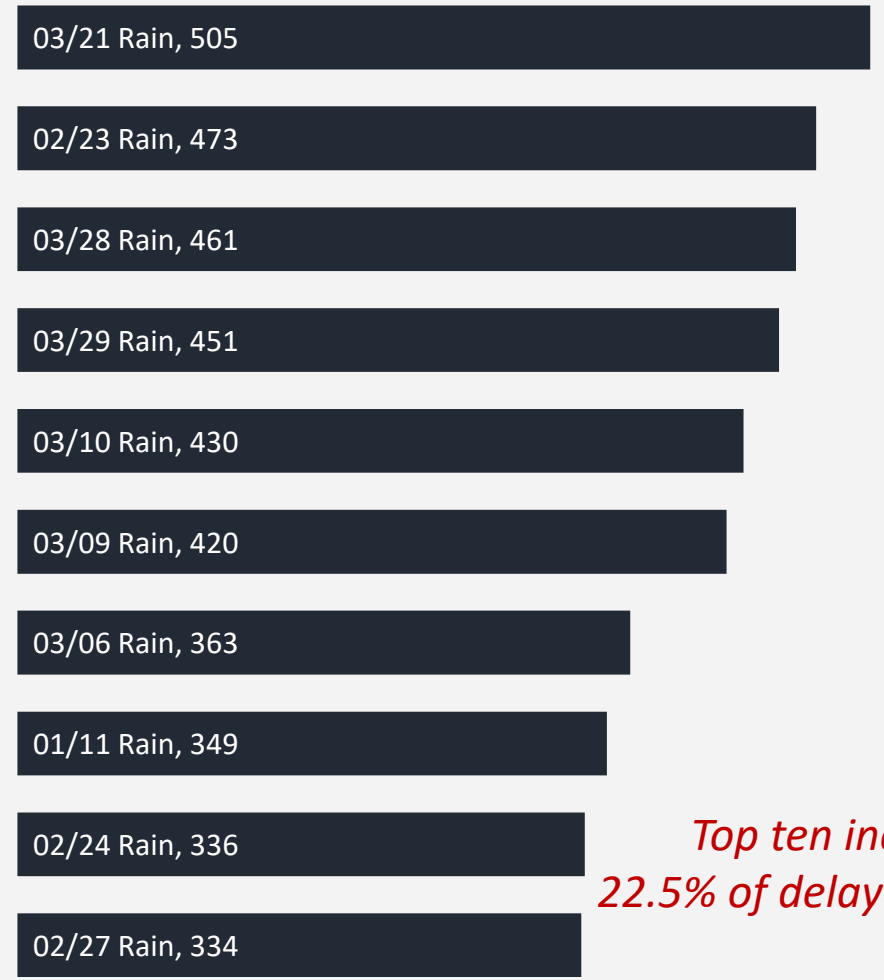
▼ Gray arrows represent change from the previous quarter for metrics which do not have an established goal

Service Delivery – Delay Incident Detail

18318 Delayed Trains Caused by Incidents



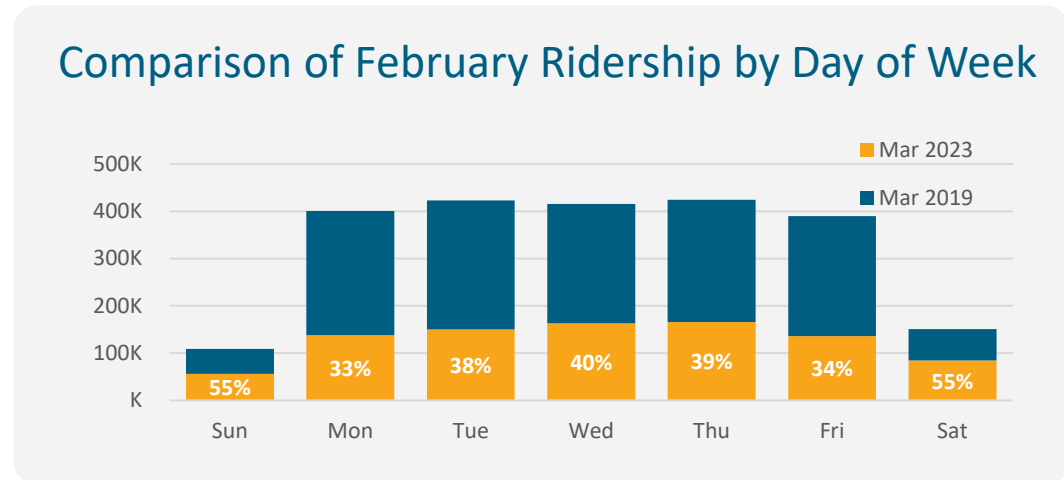
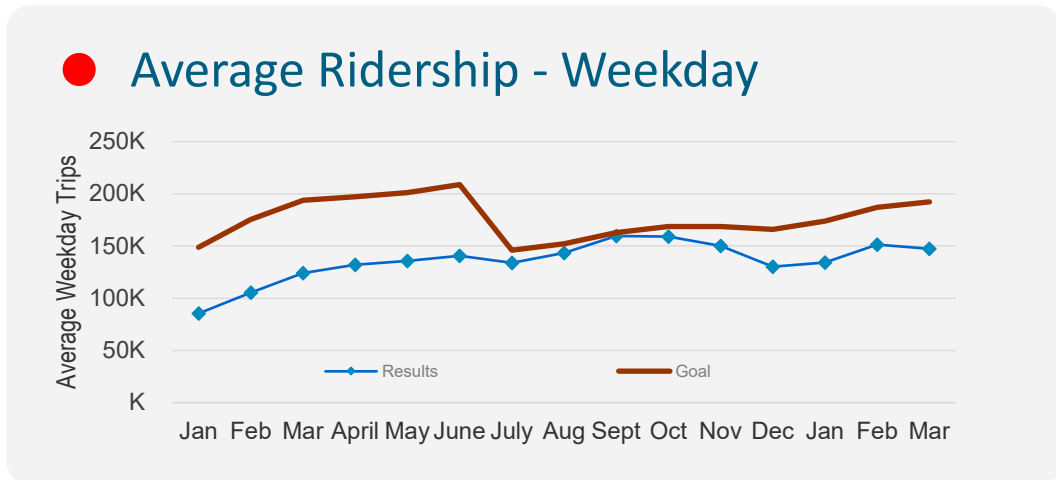
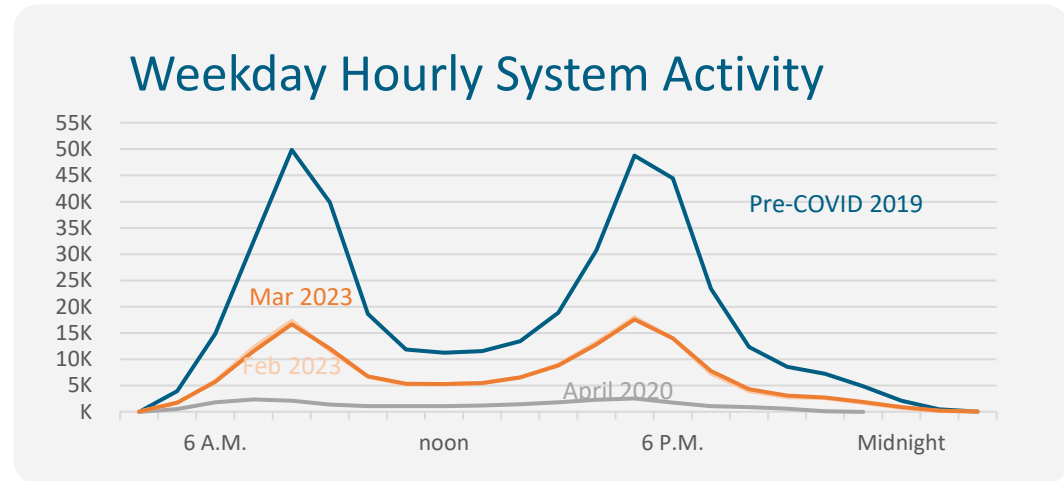
Trains Delayed - Top Ten Single Incidents



Top ten incidents = 22.5% of delayed trains

Capacity – Ridership

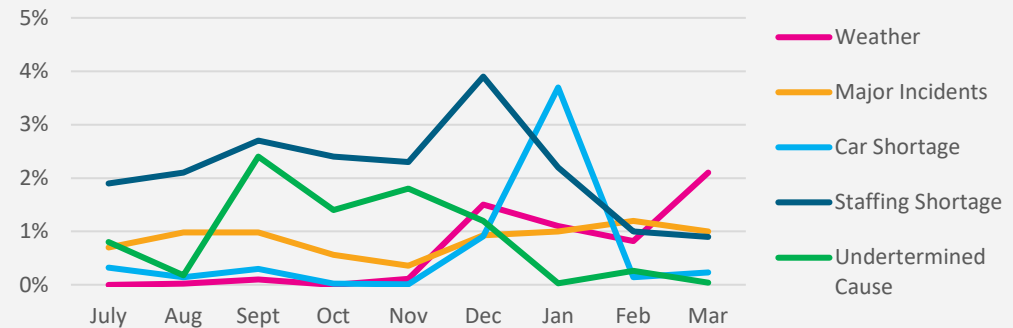
- Ridership below budgeted goal



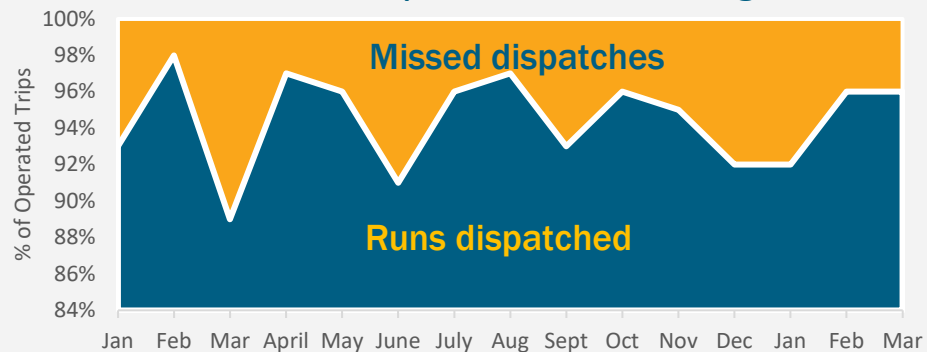
Capacity – Dispatches Operated

- Missed Dispatches are scheduled trains that did not run OR partial runs that were not able to dispatch from origin
- Majority of missed dispatches are during weekday PM peak
- Weather was the primary cause, and is much lower in Q4
- Missed dispatches due to staffing shortage decreased dramatically in Q3

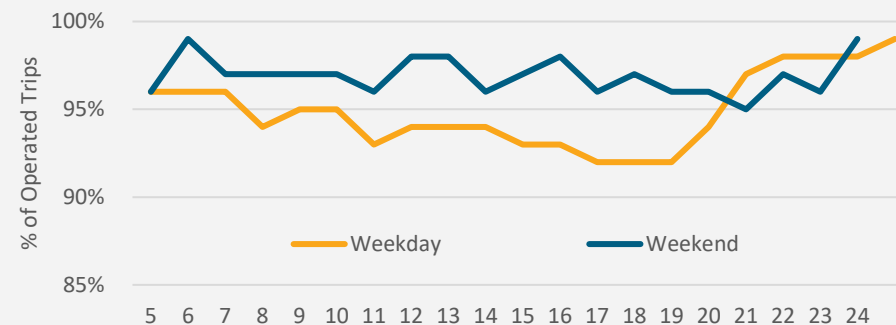
% of Scheduled Dispatches Missed by Cause



Scheduled Runs Dispatched from Origin

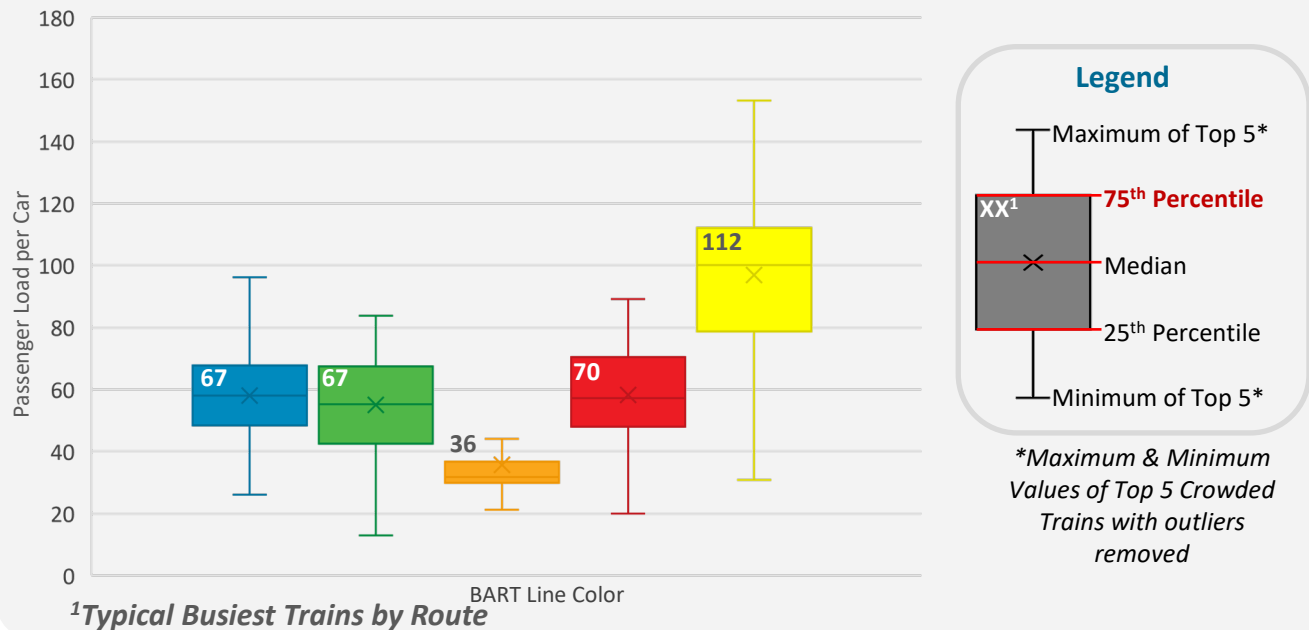


Hourly Scheduled Runs Dispatched from Origin

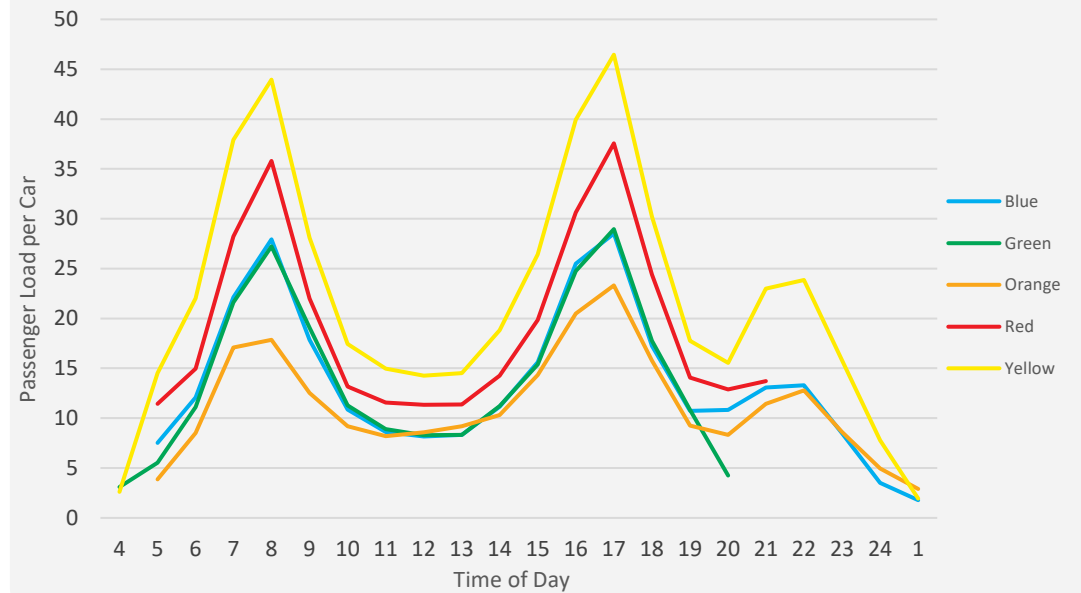


Capacity – Passenger Loading

Passenger Load per Car for Top 5 Crowded Weekday Trains

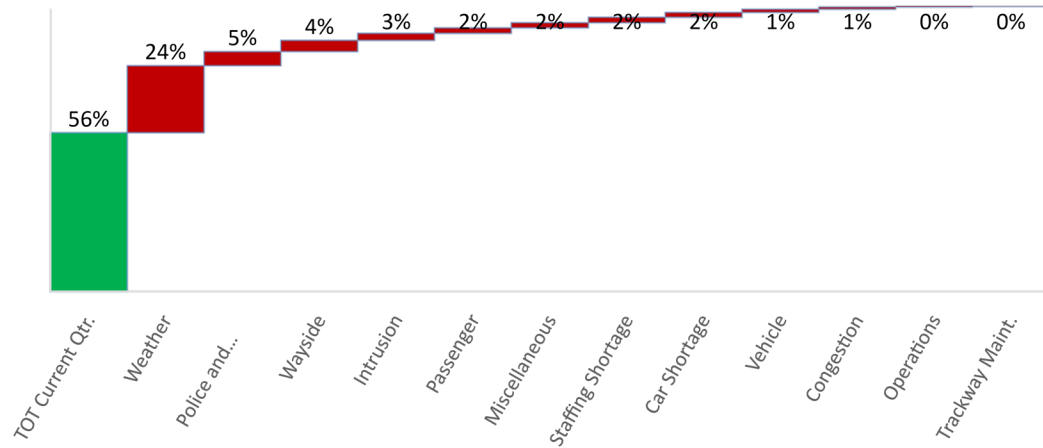


Average Hourly Weekday Passenger Load per Car by Line

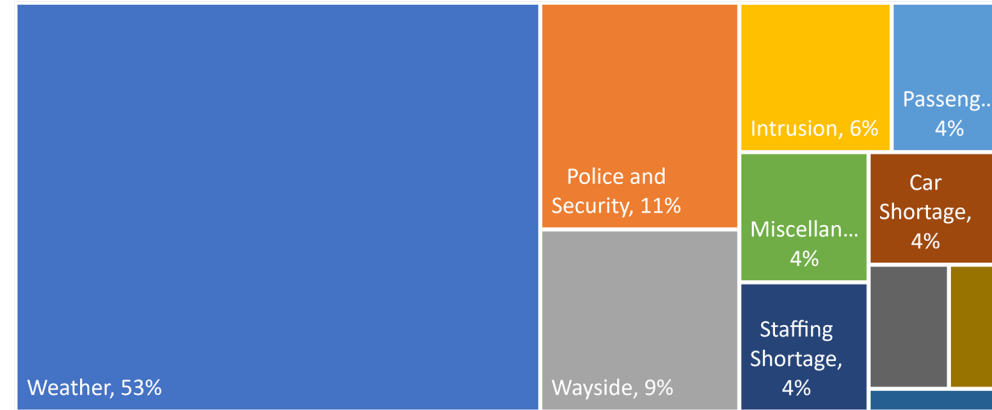


Punctuality – Trains On-Time

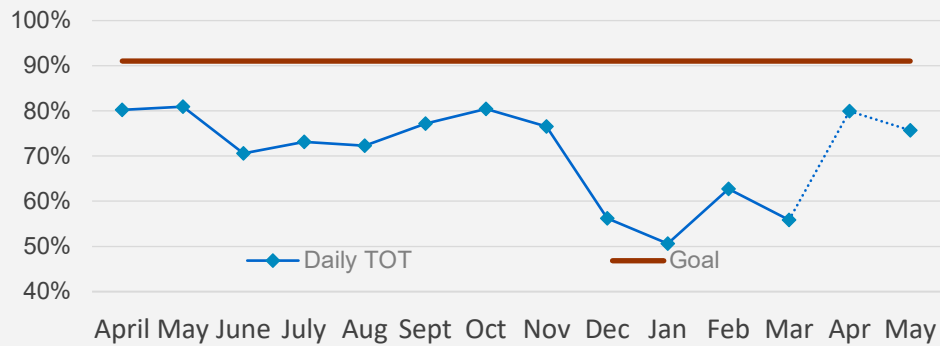
TOT - Daily



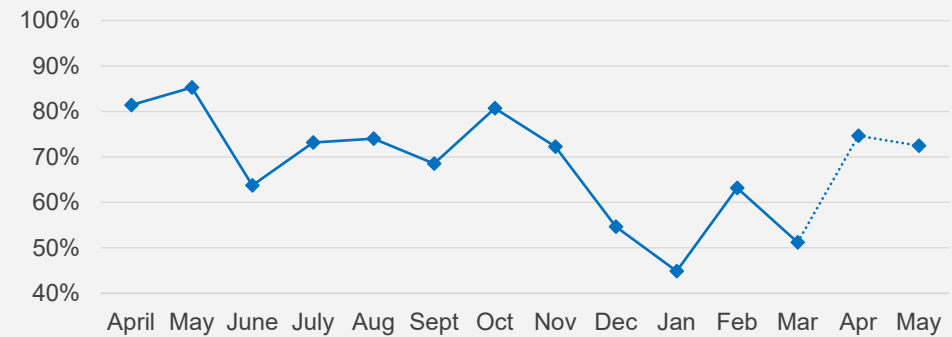
Estimate of Late Trains by Incident Cause (EOL)



● Trains On-Time - Daily



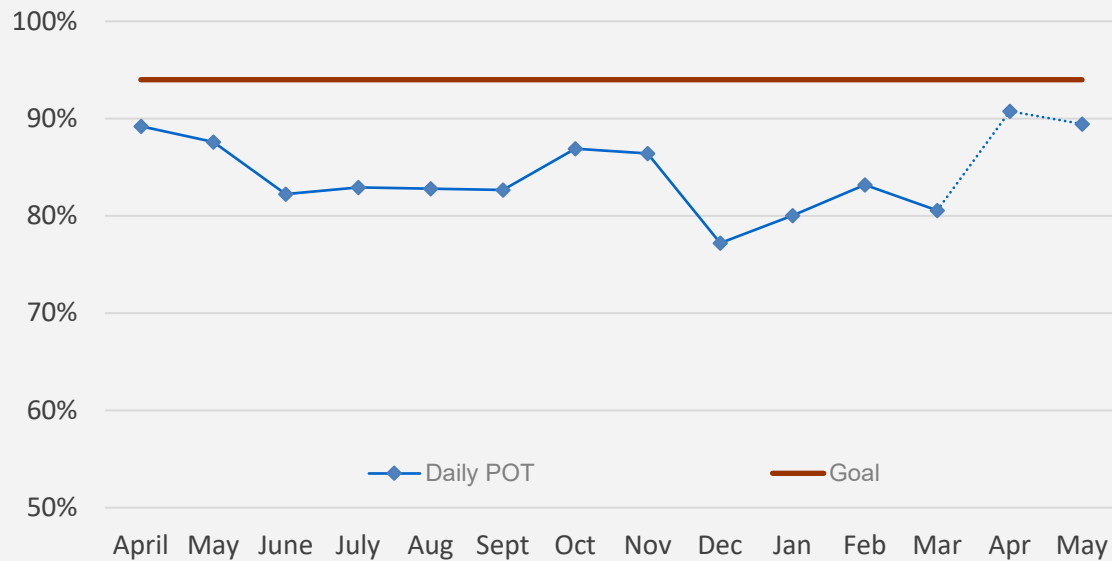
Trains On-Time - Peak



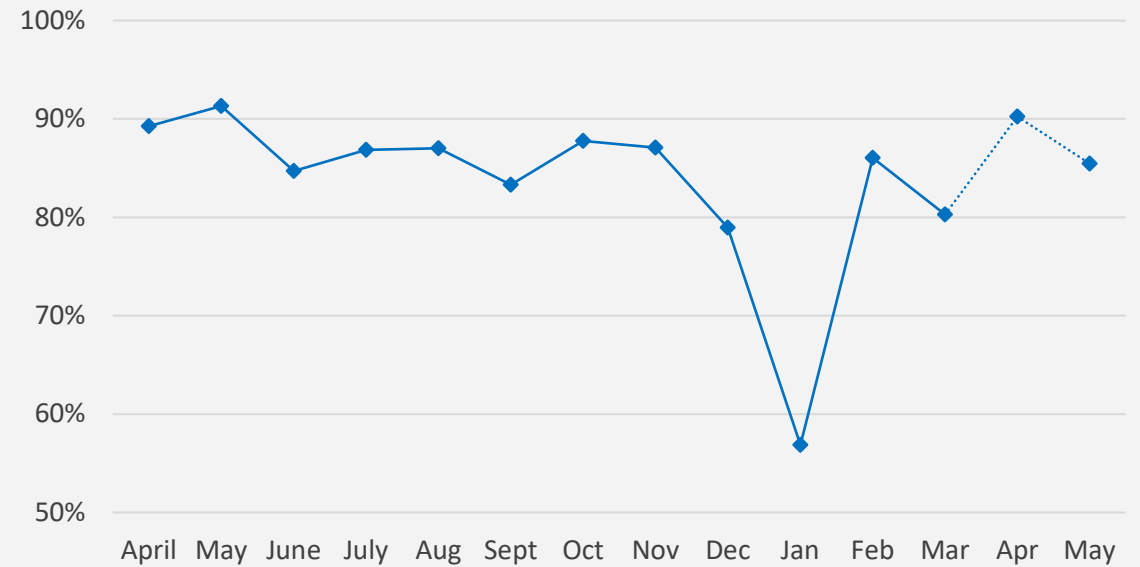
Punctuality – Customer On-Time

- Customer on-time performance was impacted by speed reductions due to weather

Customer On-Time - Daily



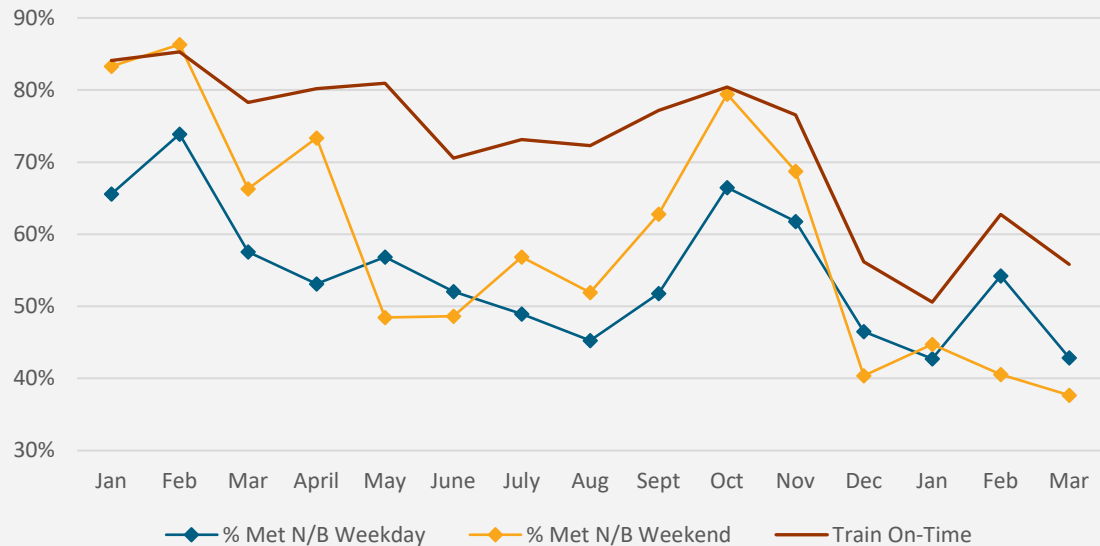
Customer On-Time - Peak



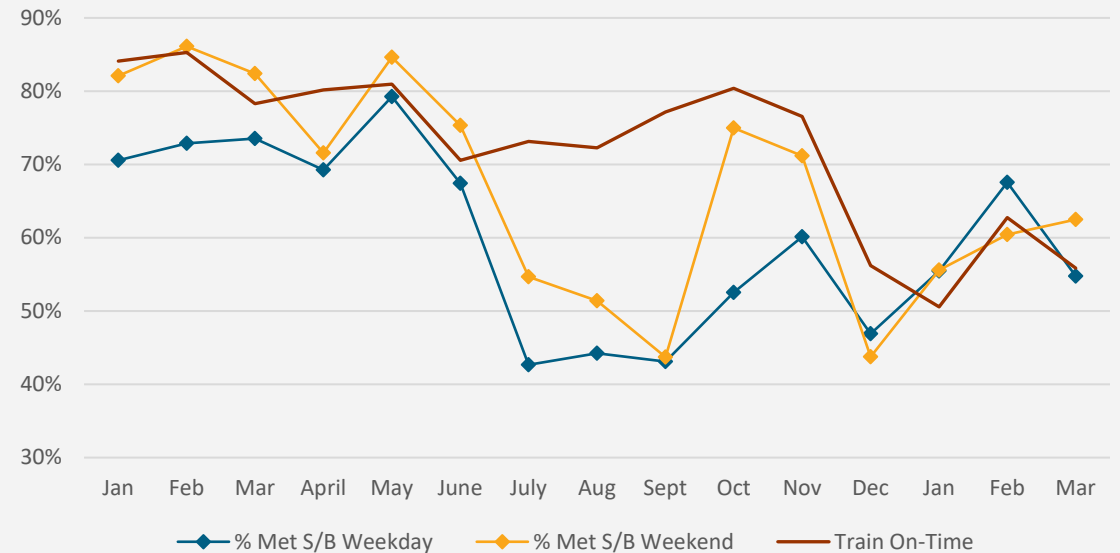
Punctuality – Timed Train Meets

- A meet is considered successful when there is at least 20 seconds of overlap time for both trains at the timed transfer point
- Timed Train Meets on the K-Line between the Yellow and Orange lines occur as follows
 - Northbound trains meet at 19th Street
 - Southbound trains meet at MacArthur

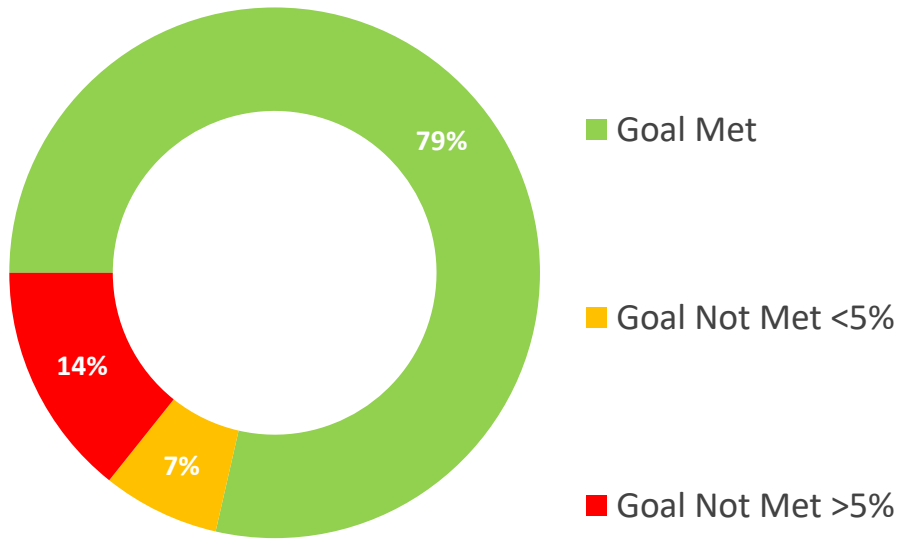
Northbound Meets at 19th Street



Southbound Meets at MacArthur



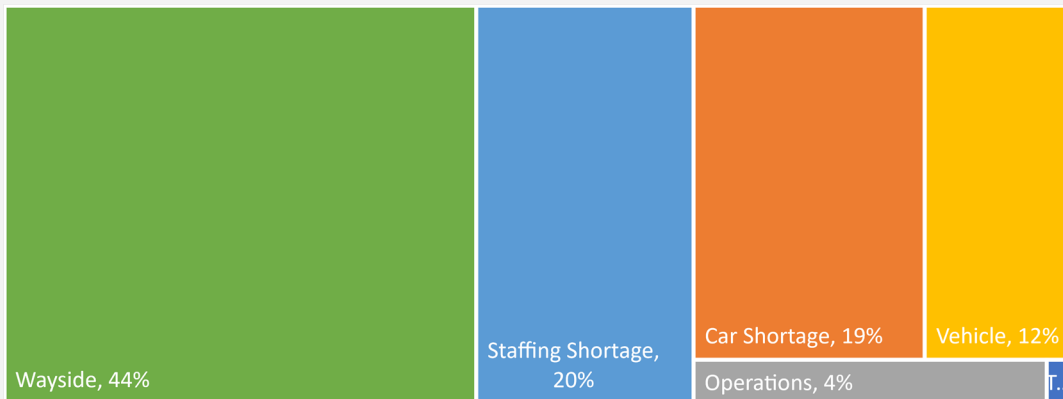
Summary – Railway Asset Availability



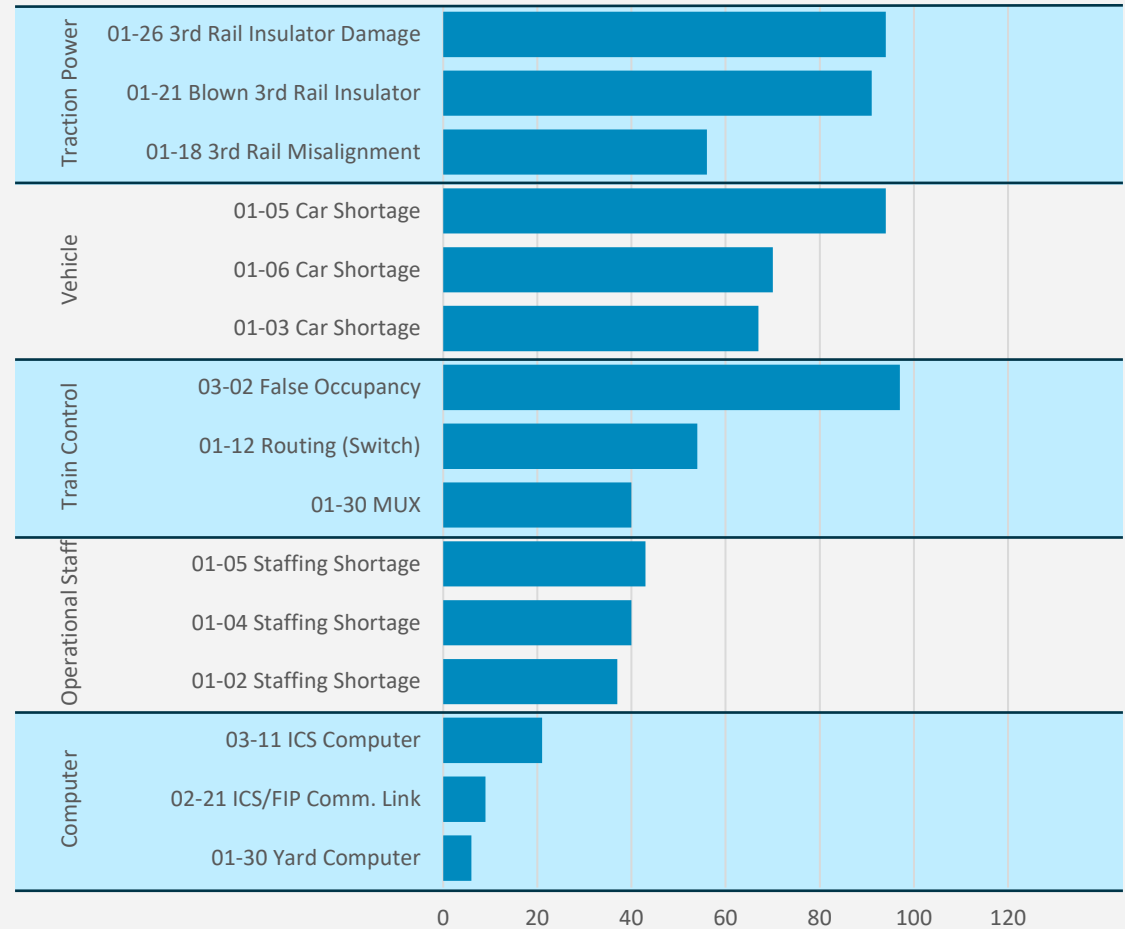
Metric	FY23 Q3	Goal	Change from FY23 Q2	
<i>Station Equipment</i>				
Elevators in Service - Station	98.3%	98%	(0.85%)	▼
Elevators in Service - Garage	98.9%	97%	(0.98%)	▼
Escalators in Service - Street	91.8%	93%	(4.92%)	▼
Escalators in Service - Platform	96.5%	96%	(1.88%)	▼
Automatic Fare Collection - Gates	98.8%	99%	0.02%	▲
Automatic Fare Collection - Vendors	98.7%	95%	0.51%	▲
<i>Revenue Vehicle</i>				
Vehicle MTBSD - (Hours)	8184	6500	40.01%	▲
4 AM - Car Availability	651	636	(4.22%)	▼
DMU - MDBF (Miles)	93392	20000	490.38%	▲
<i>Wayside Equipment</i>				
Track	0.01	0.30	88.88%	▲
Transportation	1.82	0.50	49.90%	▲
Traction Power	0.83	1.00	27.40%	▲
Wayside Train Control System	1.70	1.30	5.55%	▲
Computer Control System	0.08	0.30	82.51%	▲

Railway Asset Availability – Detail

Breakdown of 3694 Trains Delayed by Incidents due to Railway Asset Unavailability

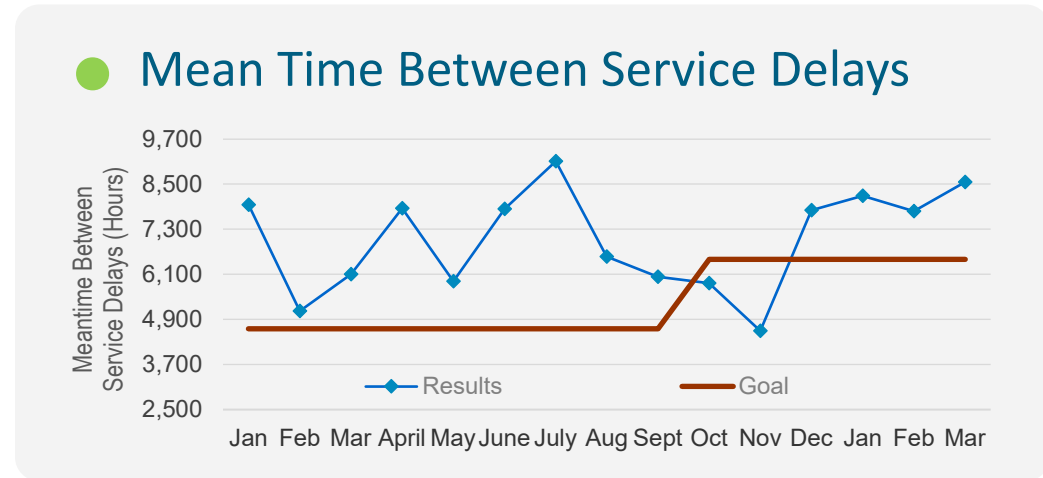
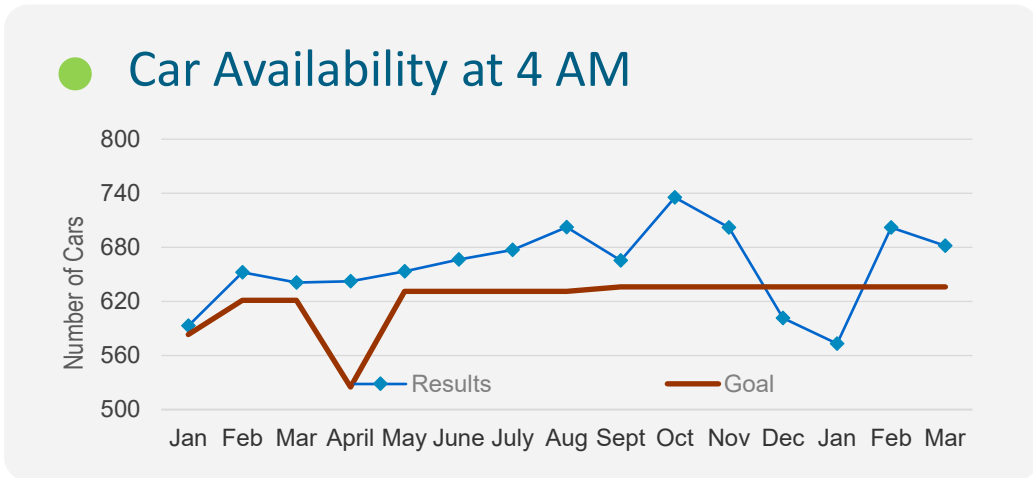
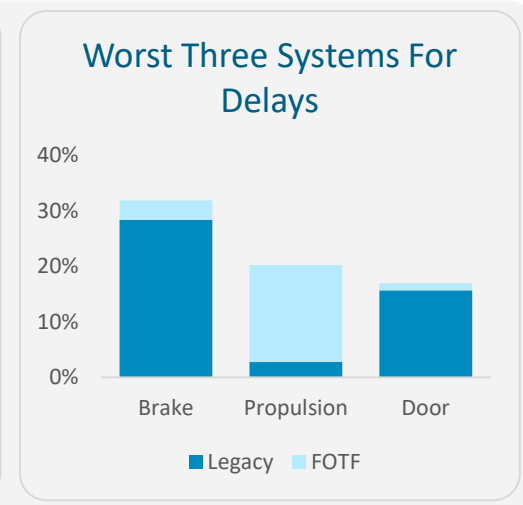
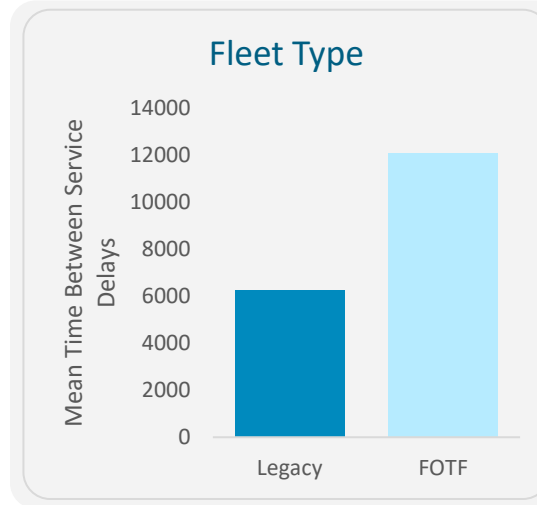


Trains Delayed – Three Worst Asset-Related Incidents by Department



Revenue Fleet – Reliability

- Fleet of The Future continues to outperform the legacy fleet
- January car availability impacted by wet weather and wheel flats



386

LEGACY

FOTF

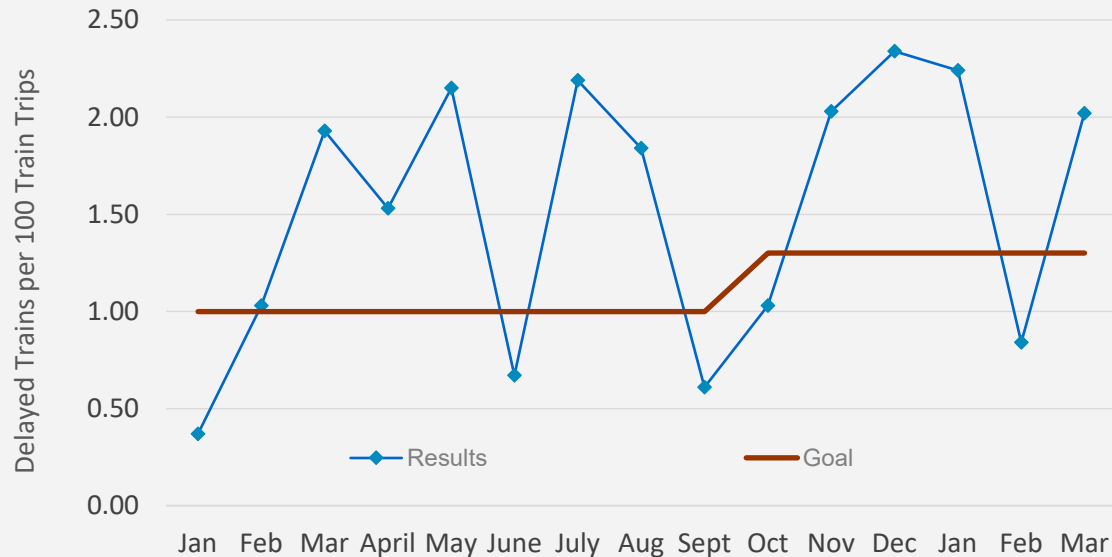
477

Car count as of 03/31/2023

Wayside Train Control System

- Two asset failures in January delayed a total of 94 trains
- An interlocking failure in March delayed 97 trains

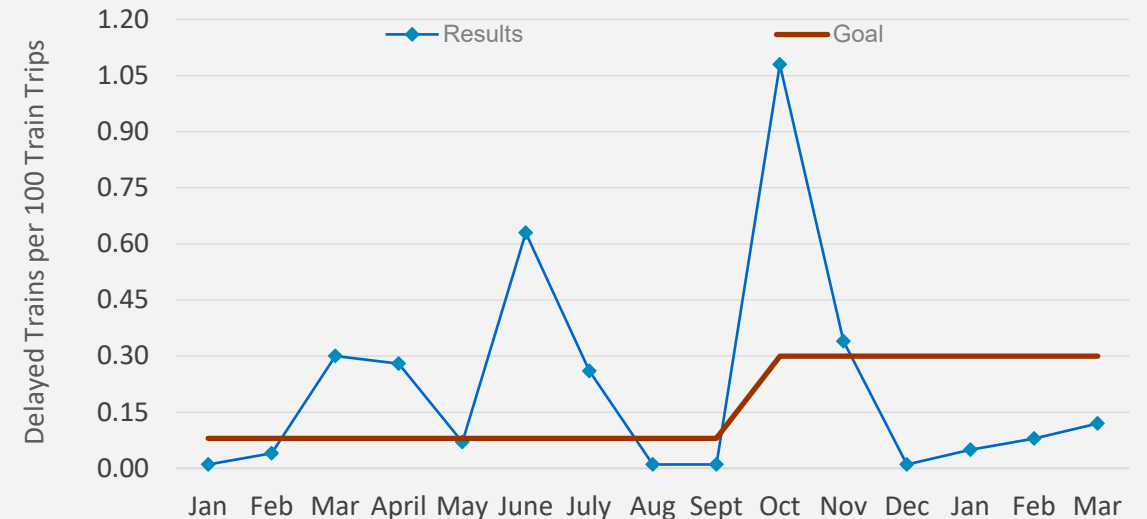
● Wayside Train Control System



Wayside Computer Control System

- Met goal

● Wayside Computer Control System



Wayside Equipment – Railway

Traction Power System

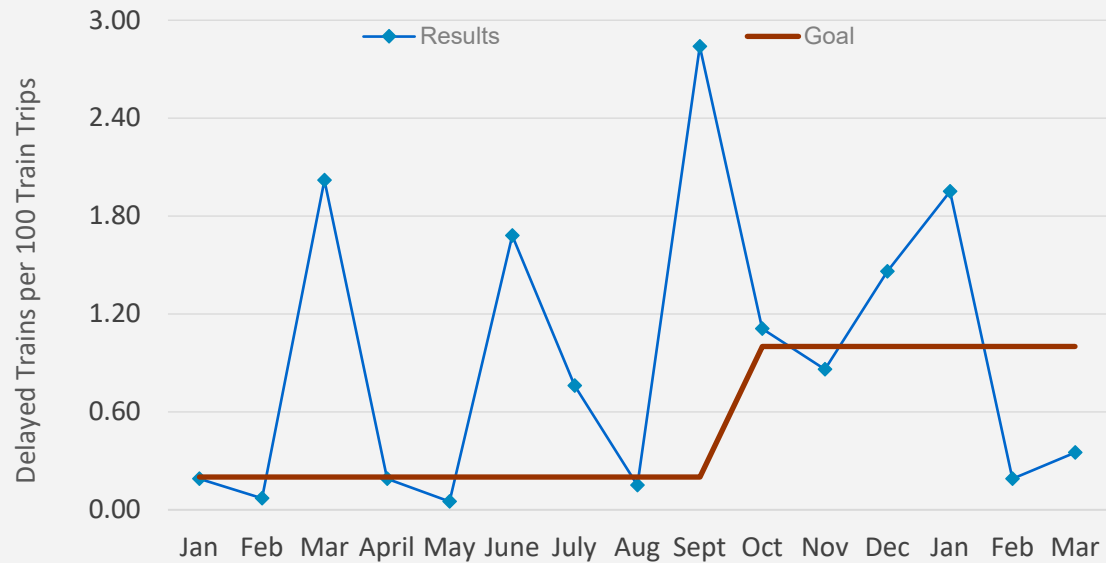
- Three incidents related to 3rd Rail equipment in January

Track System

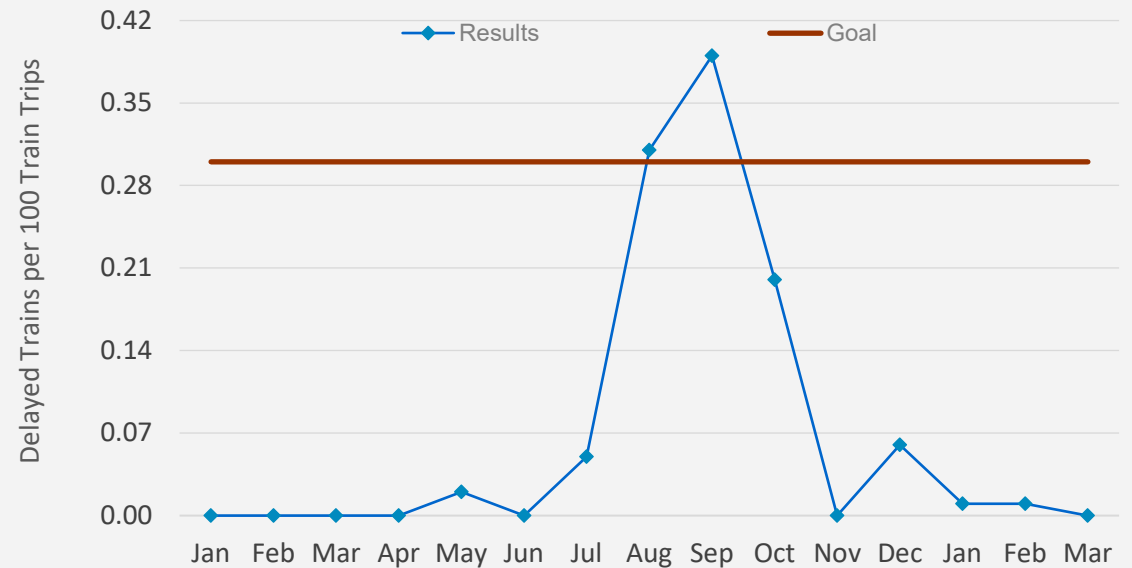
- Met goal



Traction Power System

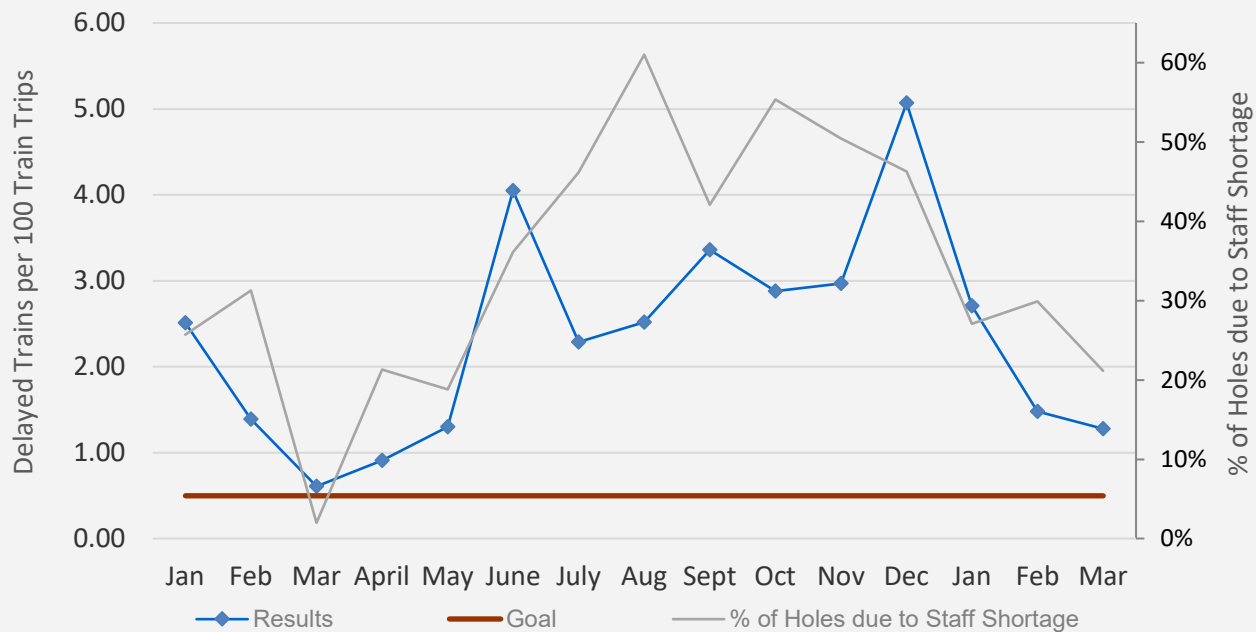


Track System



- Train delays due to staff shortages have declined significantly as recruitment of Train Operators continues
- Recruiting of Train Operators, Rail Controllers, and Foreworkers remains the highest priority

● Operations



Outlook – Transportation Staffing

- Train Operators
 - On pace to reach full-staffing in late 2023
 - Three classes underway – on-going into Fall
- Station Agents
 - On pace to reach full-staffing this Summer
 - Continued but slowing pace of recruiting
- Rail Controllers
 - Five Rail Controllers in training
- Foreworkers
 - Hiring is a priority for 2023/2024
 - Twenty Foreworkers currently in training

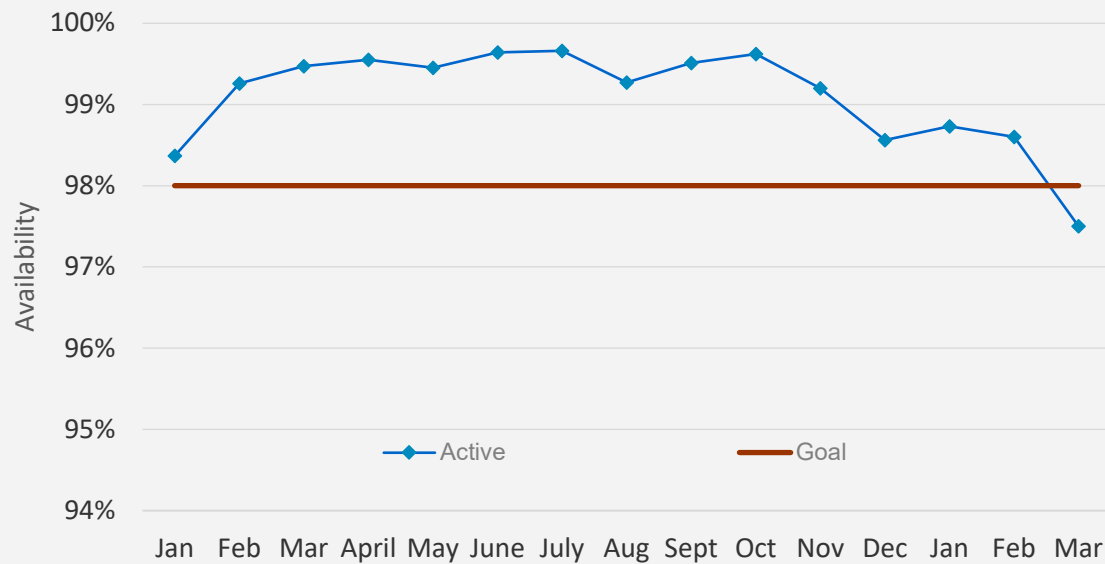


Station Equipment – Elevator Availability

Station Elevator

- Goal met

Station Elevator

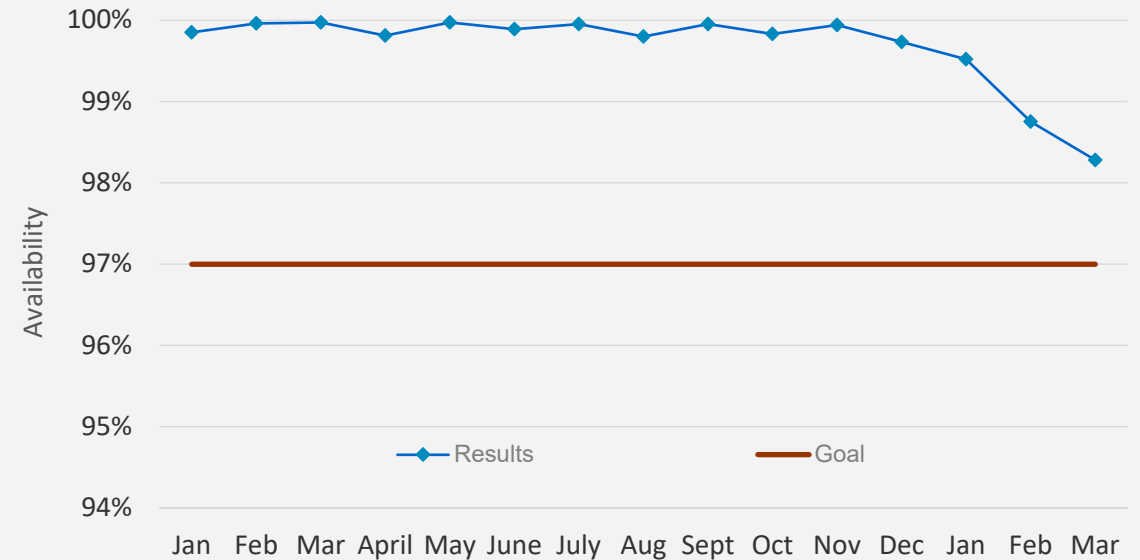


Garage Elevator

- Goal met



Garage Elevator

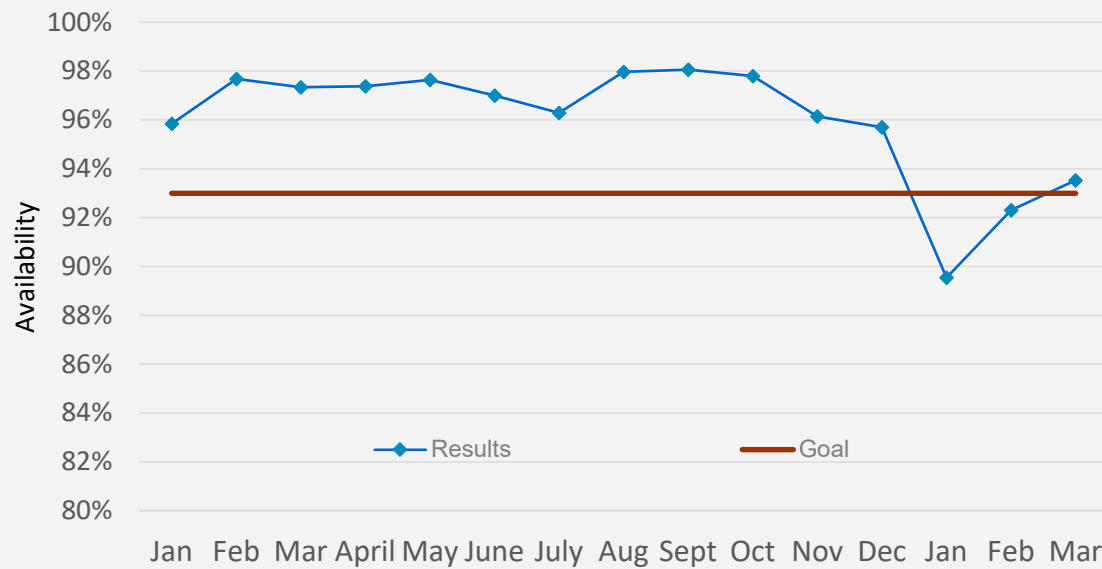


*E-line Elevator and Escalator are included

Street Escalator

- Heavy rains impacted several street escalators
- Warm Springs and 16th St Station escalators were out of service for maintenance and repair

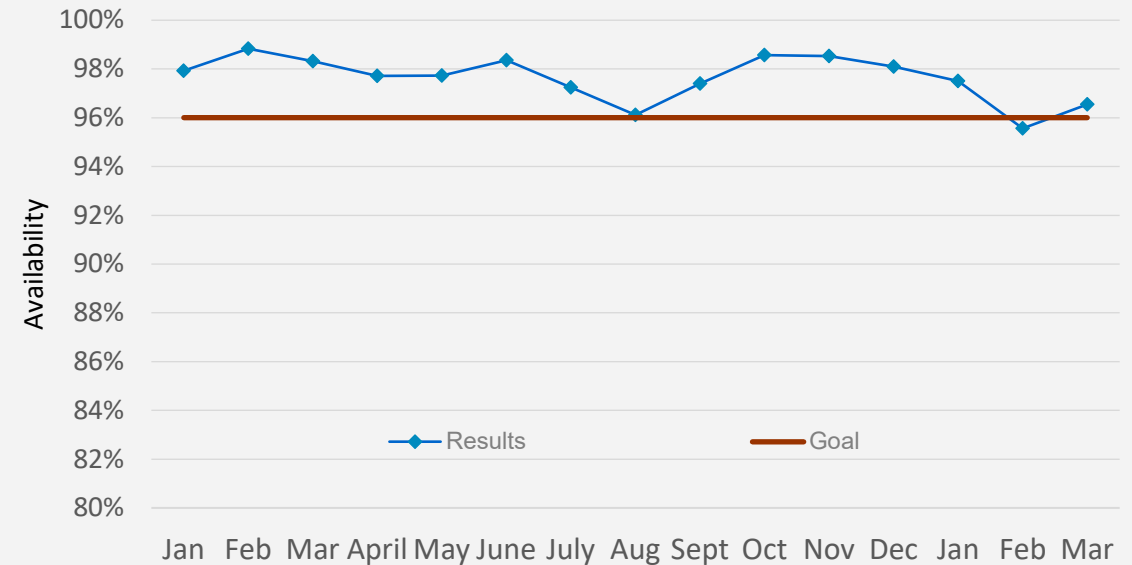
Street Escalator



Platform Escalator

- Goal met

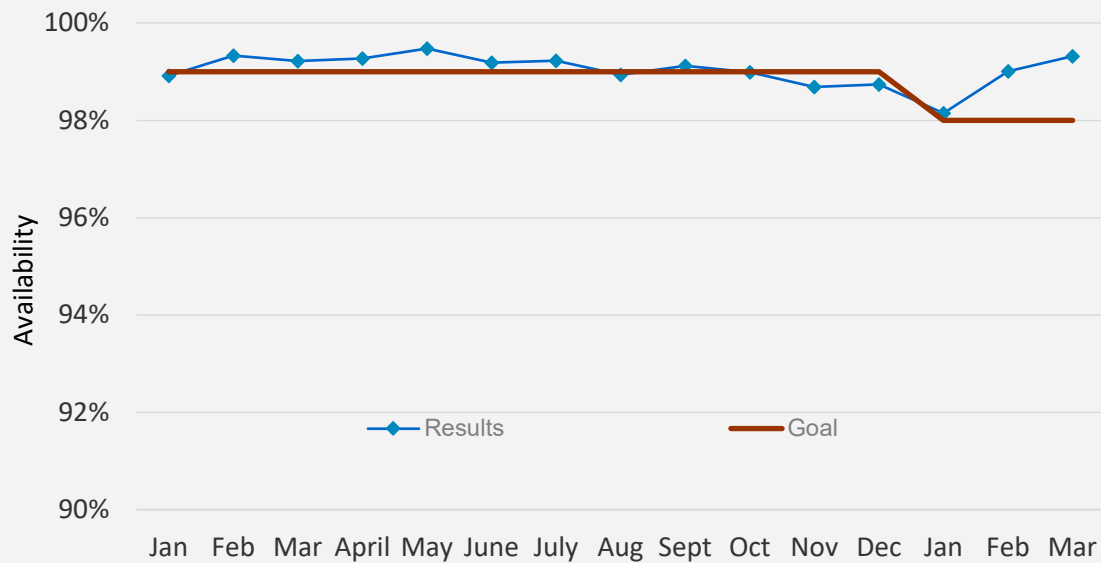
Platform Escalator



Gate Availability

- The availability goal changed from 99% to 98% due to an increase in maintenance work on aging gates
- Repaired damaged electrical conduits which caused delays in Q2

Gate Availability

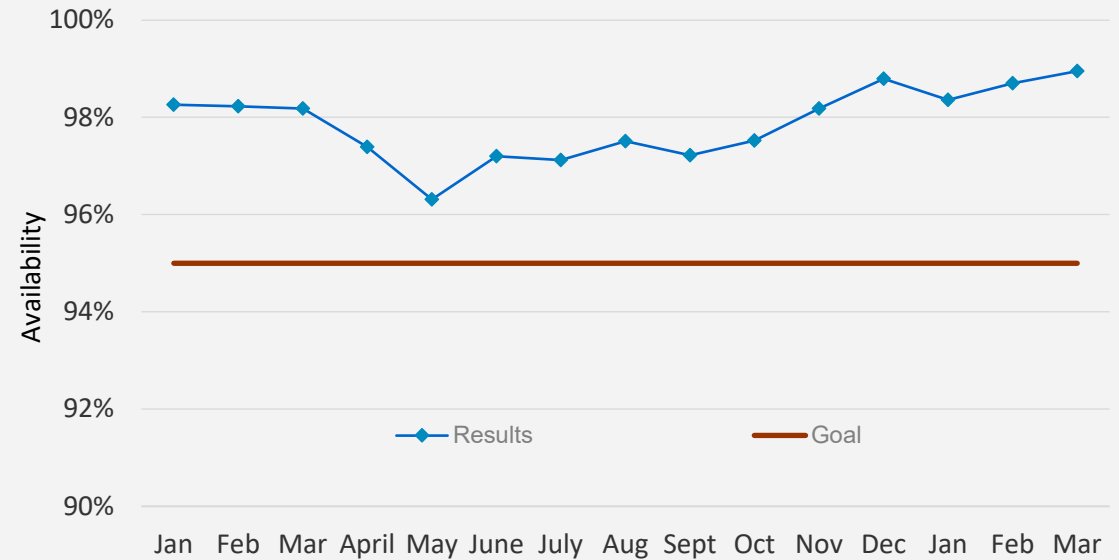


Vendor Availability

- Goal met



Vendor Availability



Summary – Customer Experience



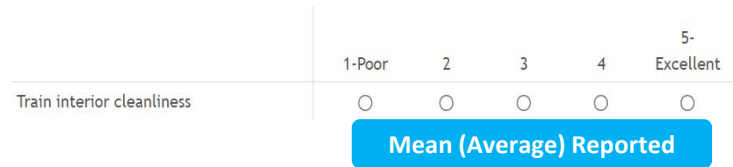
Metric	FY23 Q3	Goal	Change from FY23 Q2
<i>Customer Experience</i>			
Overall Customer Satisfaction	70.0%		-
Station Agent Customer Service	3.9		-
Complaints per 100,000 Passenger Trips	23.1		1.12% ▲
<i>Train Environment</i>			
Train Temperature	4.1		-
Train Interior Cleanliness	3.7		-
<i>Station Environment</i>			
Environment Outside Stations	3.5		-
Environment Inside Stations	3.5		-
<i>Code of Conduct</i>			
Gender Based Harassment	10%		11.11% ▲
Fare Evasion	23.1%		6.33% ▲

▲ Gray arrows represent change from the previous quarter for metrics which do not have an established goal

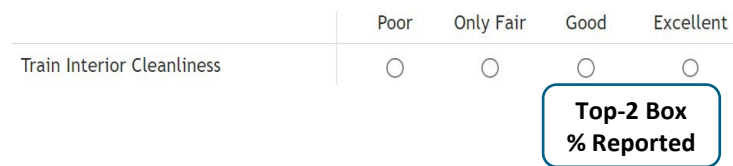
Passenger Experience Survey (Scale Change)

“Please rate the train car in which you are riding right now.”

New 5-point scale



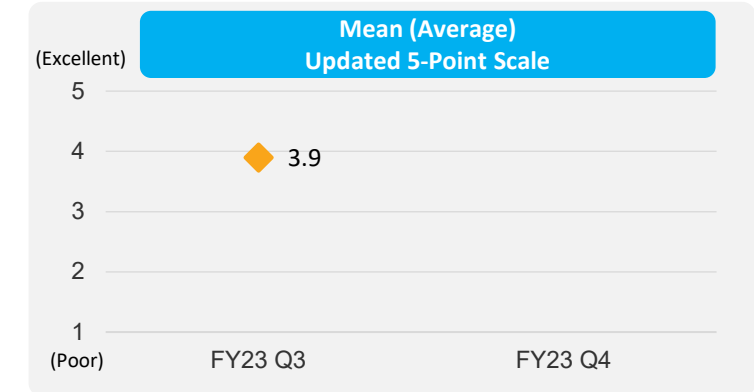
Previous 4-point scale



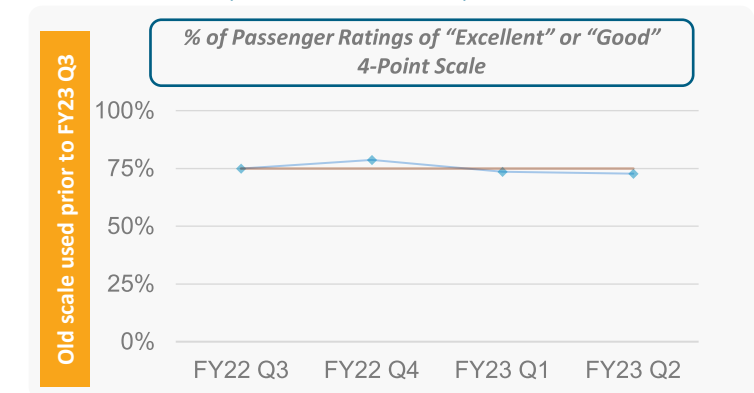
- Switching from a 4- to a 5-point scale, adding a clear neutral choice for riders
- Anchored scale with balanced options for positive and negative ratings without assigning words that may or may not reflect how a rider feels
- Reporting mean score instead of top-2-box percentage, as this metric better reflects the results of a 5-point scale with a neutral midpoint.

Customer Service Measure

Results with new 5-point scale

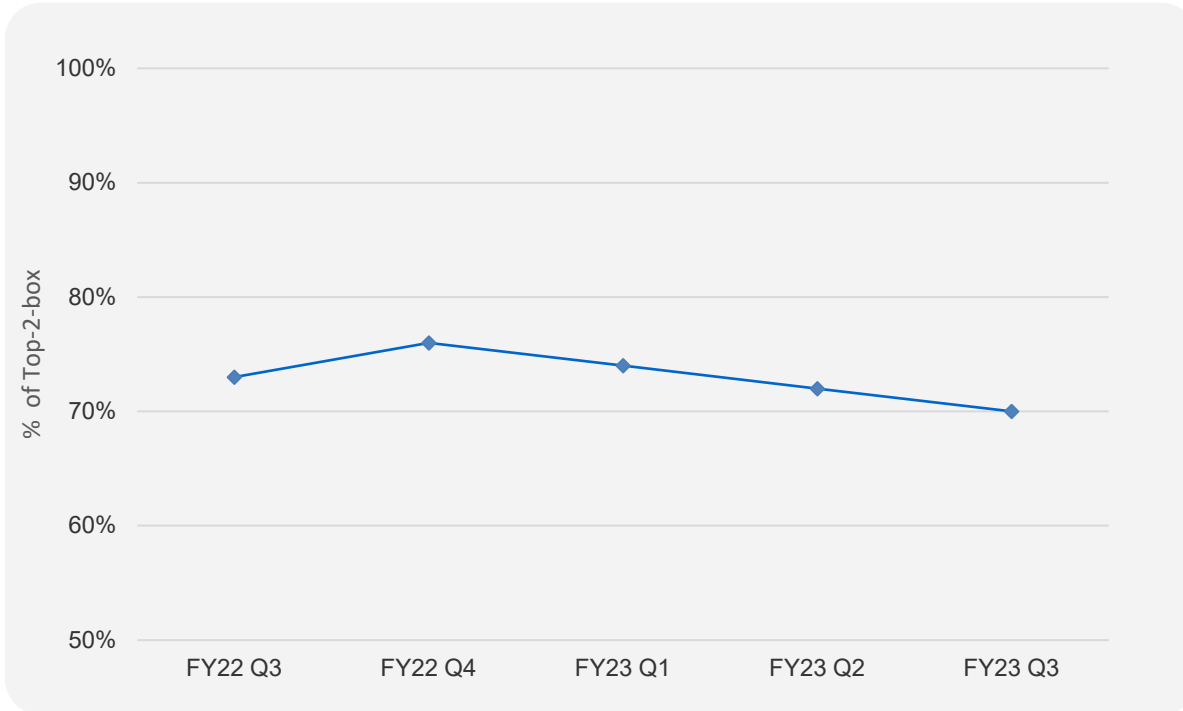


Results from prior to FY23 Q3 with 4-point scale



Overall Customer Satisfaction

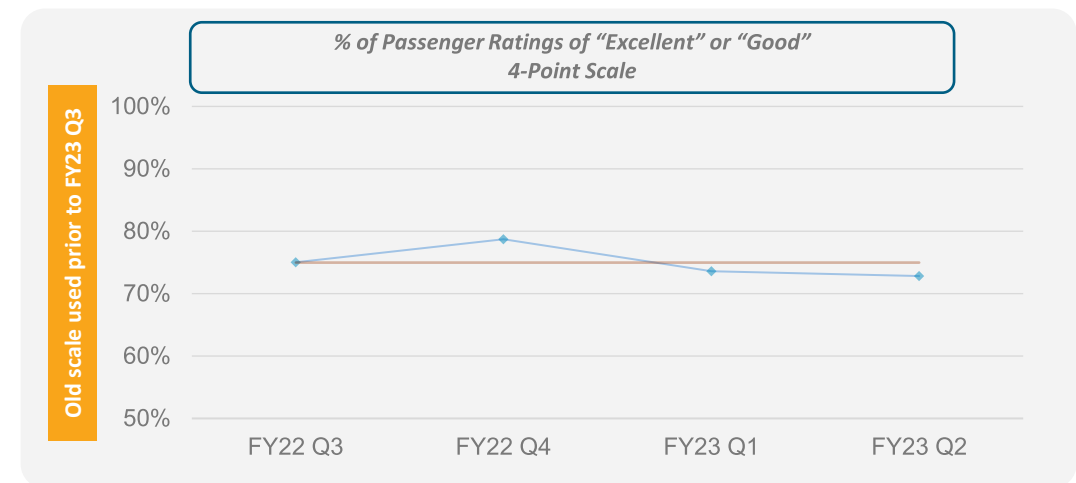
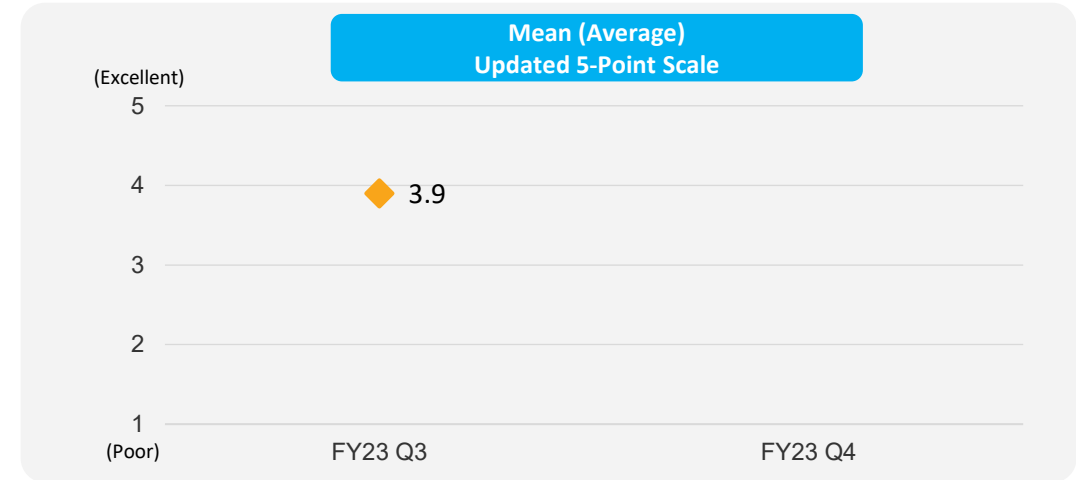
Overall, how satisfied are you with the services provided by BART?



- Overall customer service continue to reported as top-2-box % since it was always 5-point scale
- In FY24, Customer Satisfaction will be expanded to show the key part of the rider experience: train, station, and parking

Station Agent Customer Service

Customer service from Station Agent (if used today)

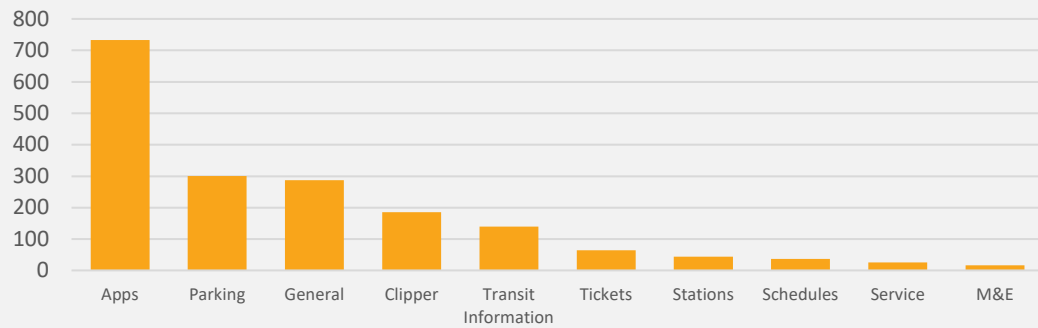


Customer Service – Cases by Type

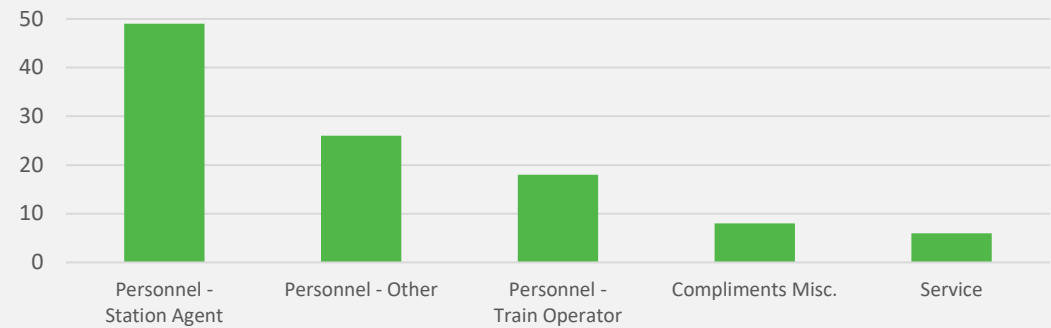
Breakdown of 4559 Inquiry Cases



Inquiry Cases – FY23 Q3



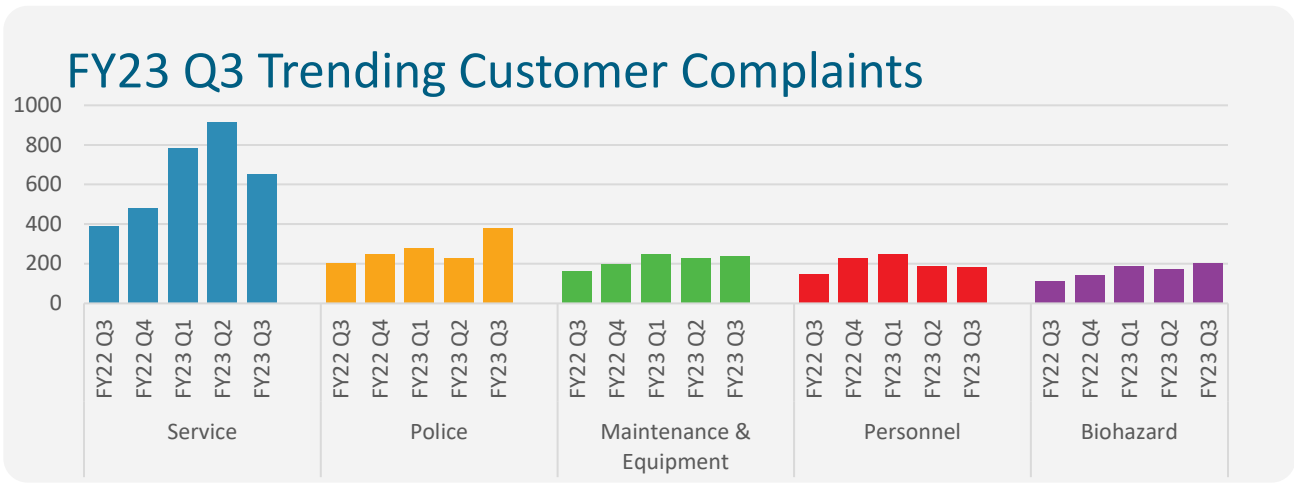
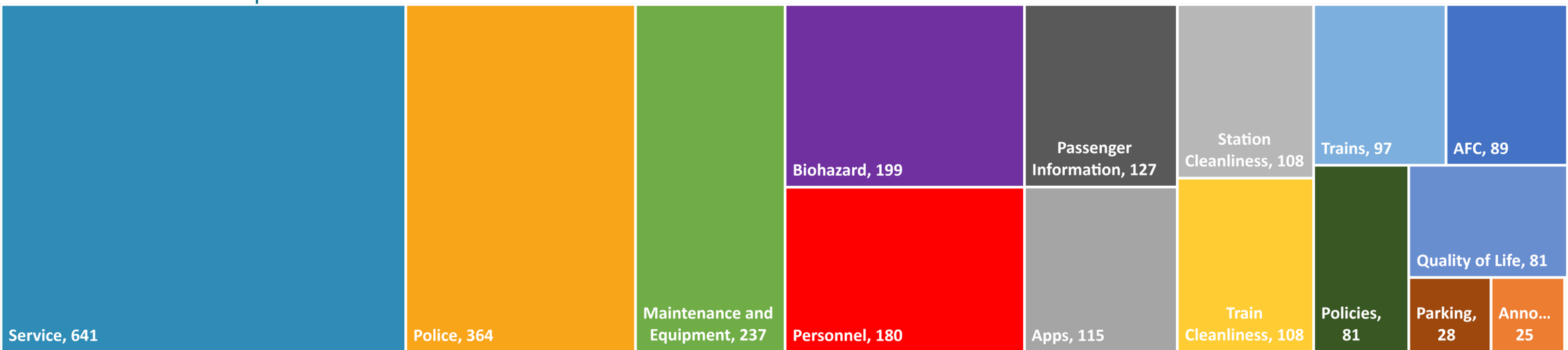
Compliment Cases – FY23 Q3



Customer Service – Complaint Cases

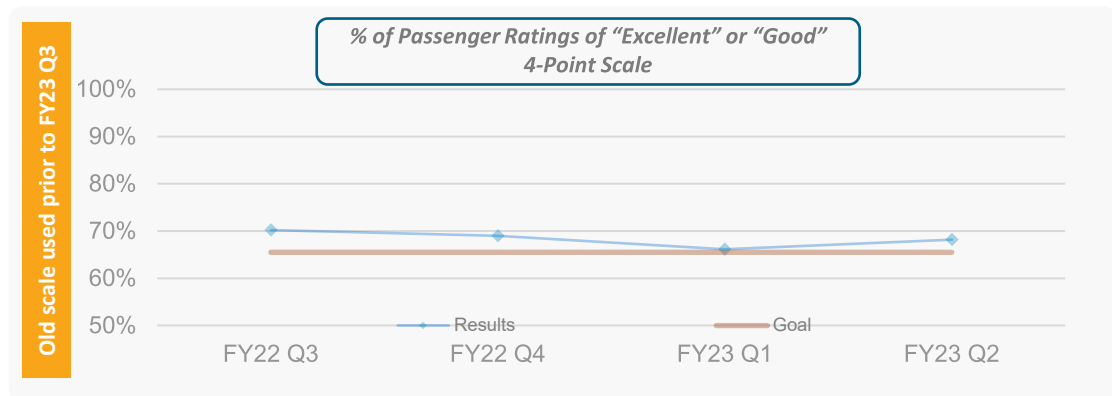
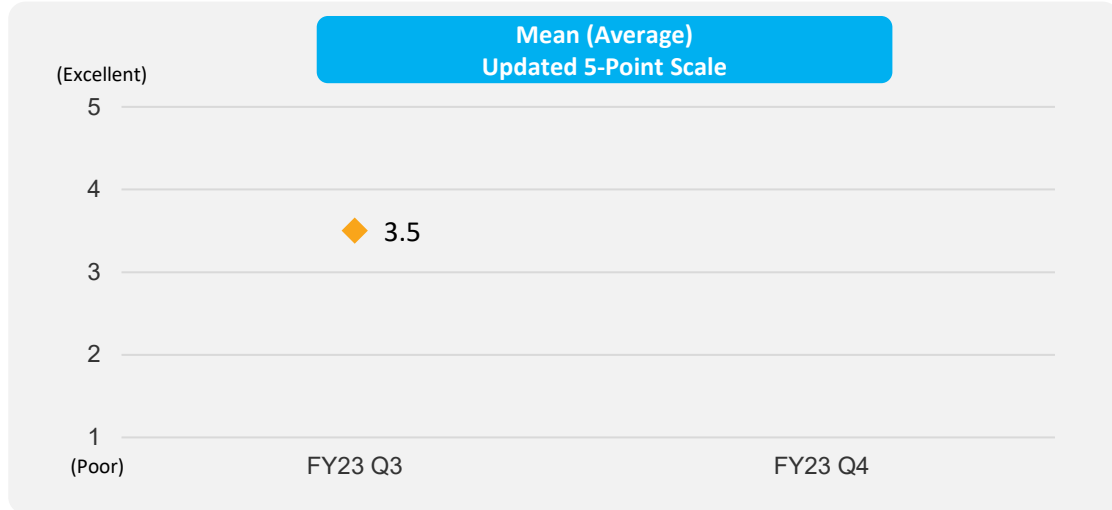


Breakdown of 2481 Complaint Cases



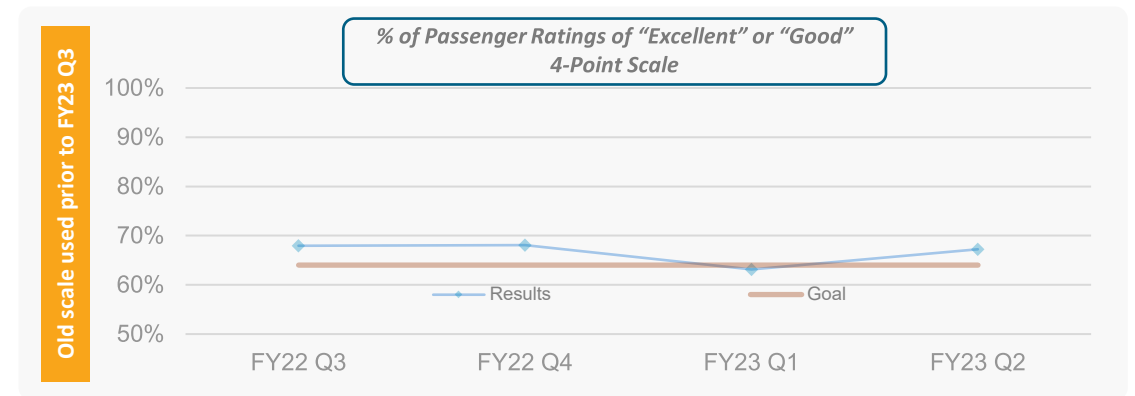
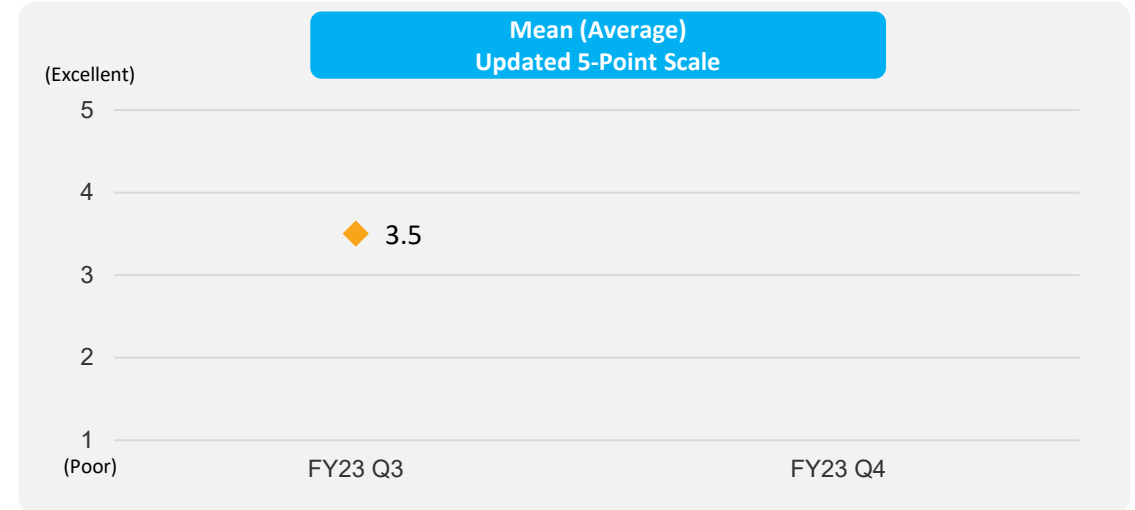
Environment Outside Station

- This is a composite score which incorporates the appearance of BART landscaping, walkways, and entry plaza (67%), and the cleanliness of the parking lot (33%).



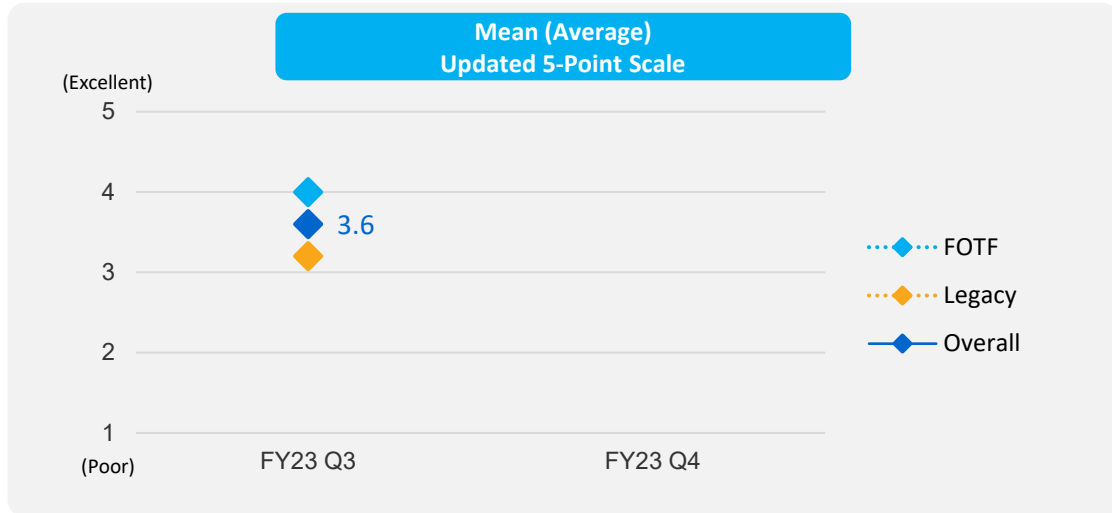
Environment Inside Station

- This is a composite score which incorporates the appearance of the platform (40%), concourse (25%), escalator (10%), stairwells (7.5%), elevator (10%), and restroom (7.5%).

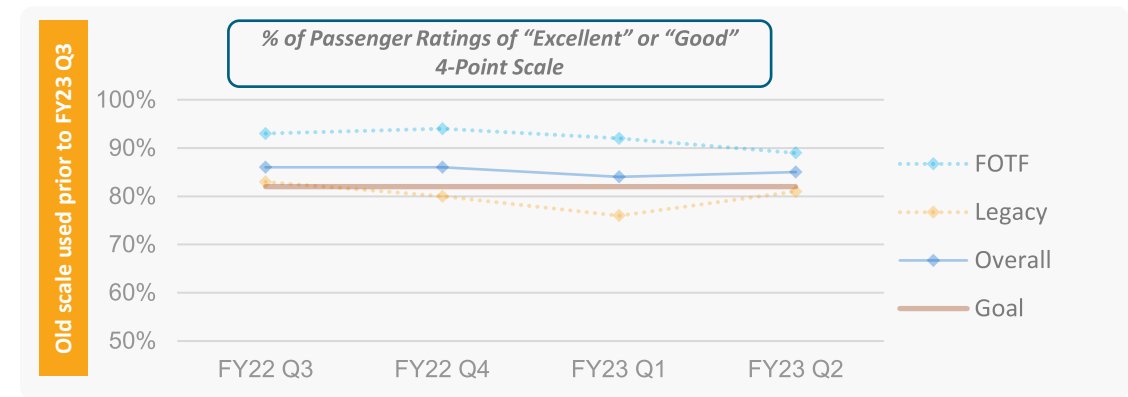
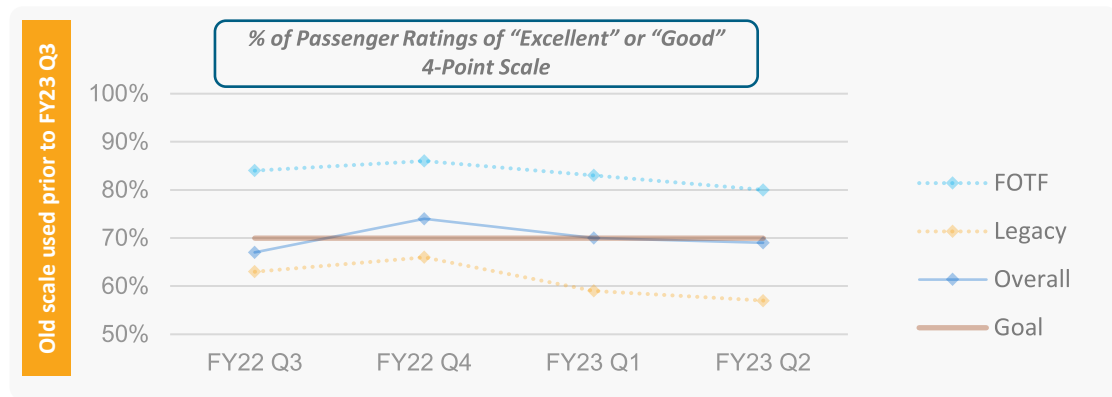
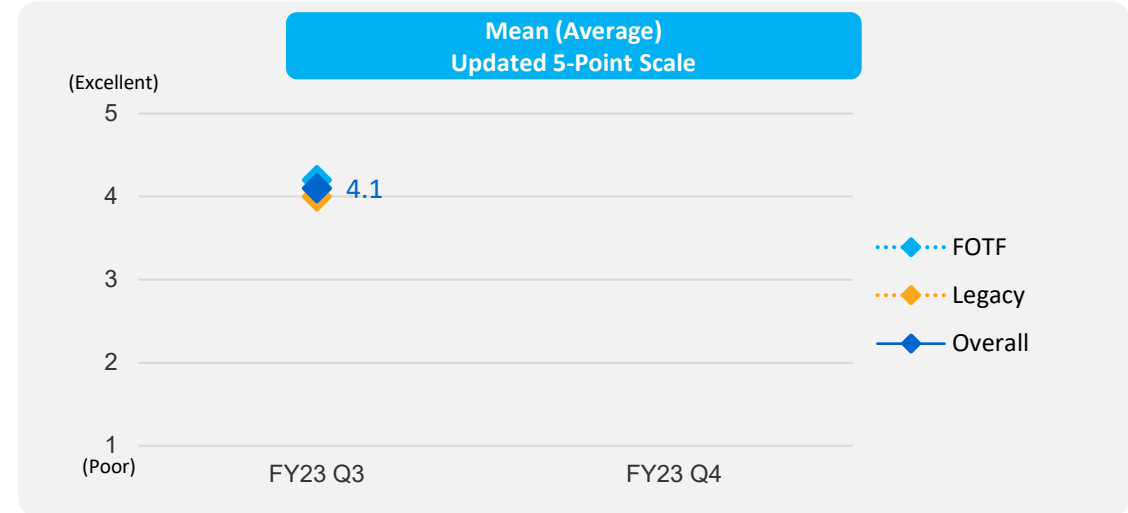


Customer Rating – Interior Cleanliness

- This is a composite score which incorporates the appearance of the train interior (60%), and the appearance of any graffiti on the train (40%).



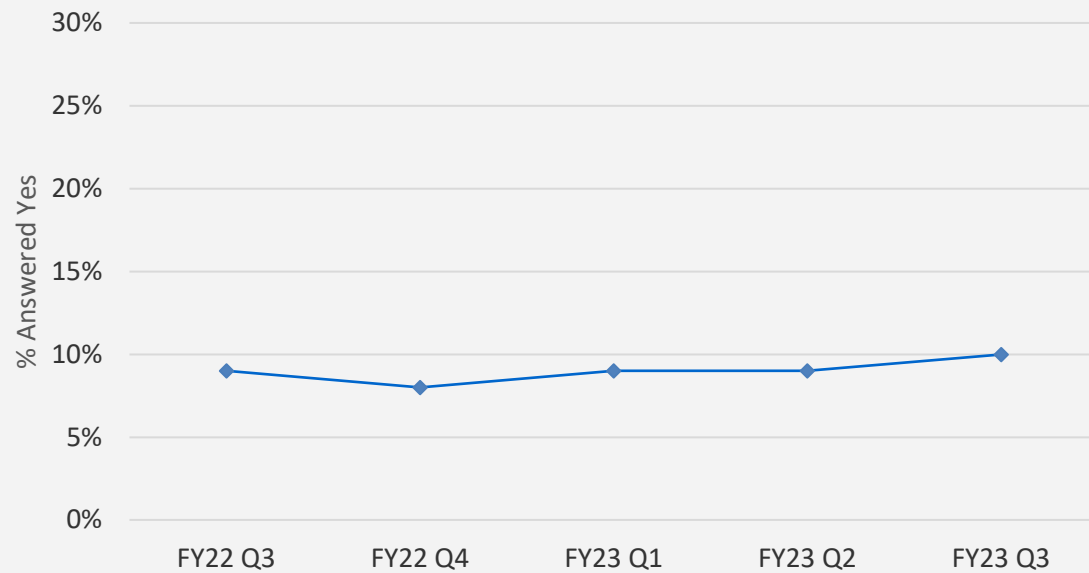
Customer Rating - Temperature



Gender Based Harassment

Have you experienced gender-based sexual harassment at BART in the last six months?

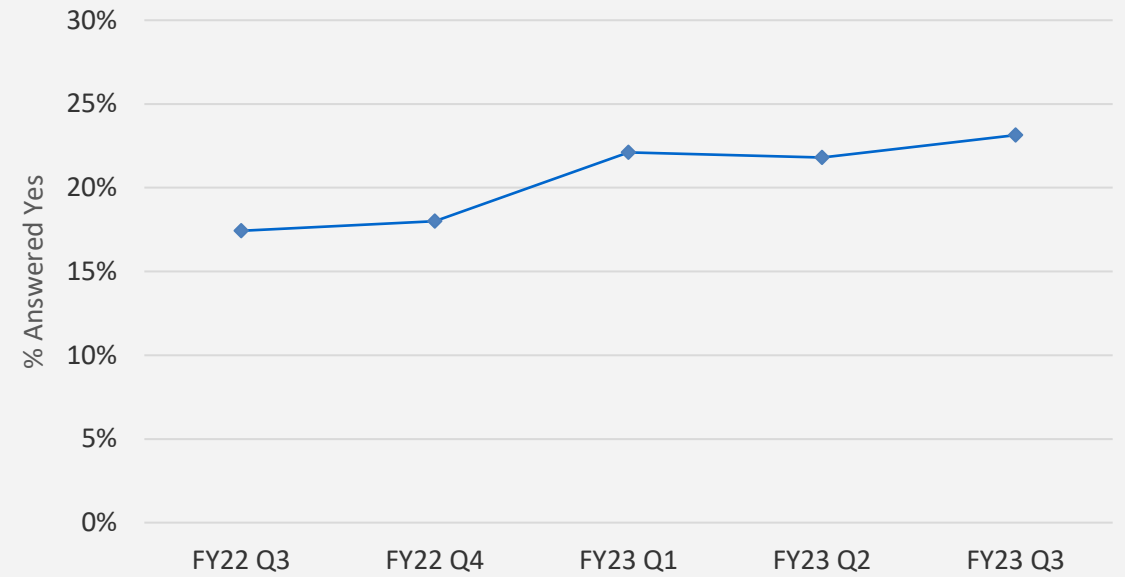
Gender Based Harassment



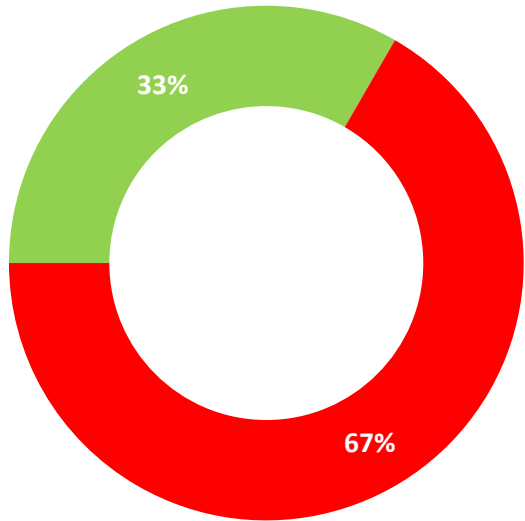
Fare Evasion

Did you see anyone enter or exit the Station without paying their fare today?

Fare Evasion



Summary – Safety and Security

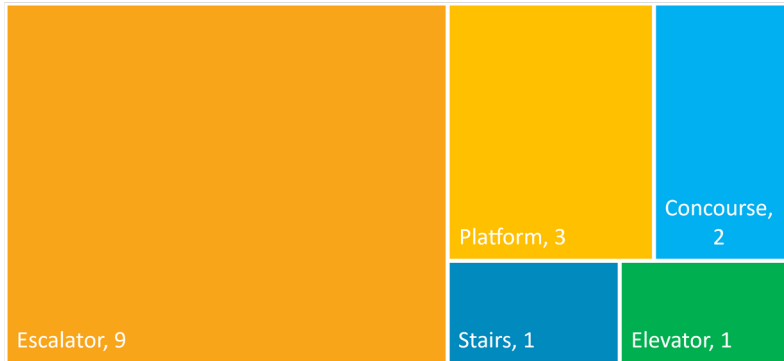


- Goal Met
- Goal Not Met <5%
- Goal Not Met >5%

Metric	FY23 Q3	Goal	Change from FY23 Q2	
<i>Safety</i>				
Vehicle Incidents/Million Patrons	0.65	0.6	27.77%	▲
Unscheduled Door Openings/Million Car Miles	0.39	0.2	(116.66%)	▼
Rule Violations Summary/Million Car Miles	0.00	0.25	100%	▲
Station Incidents/Million Patrons	1.48	2	(2.77%)	▼
OSHA-Recordable Injuries/Illnesses/Per OSHA	13.65	12	(19.10%)	▼
Lost Time Injuries/Illnesses/Per OSHA	7.92	6.5	(16.98%)	▼
<i>Security</i>				
Bike Thefts	14	50	50.00%	▲
Auto Thefts/1,000 Parking Spaces	2.39	2.0	(21.03%)	▼
Auto Burglaries/1,000 Parking Spaces	3.28	3.5	(57.98%)	▼
BART Police Presence	9.6%	12%	7.44%	▲
Crimes Against Persons/Million Riders	7.96	2	16.37%	▲

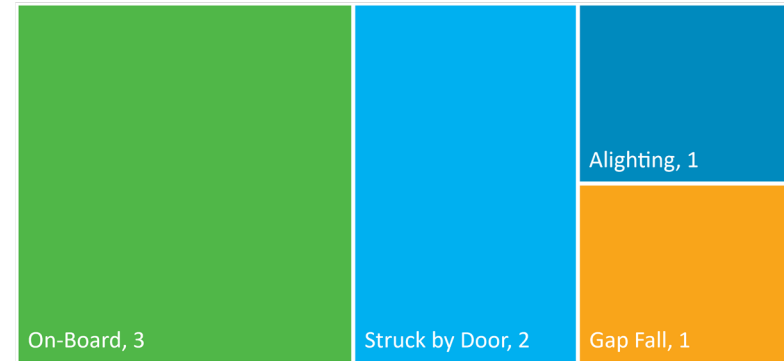
Station Incidents

Breakdown of 16 Station Incidents

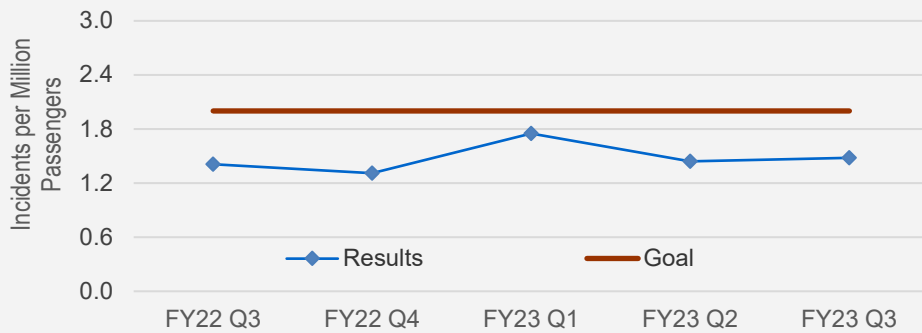


Vehicle Incidents

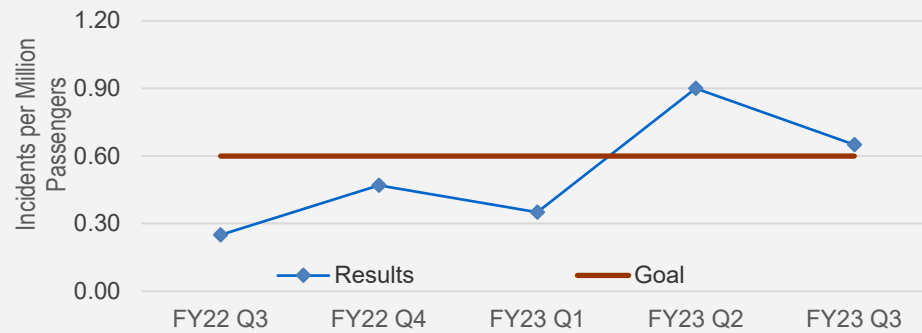
Breakdown of 7 Vehicle Incidents



Station Incidents

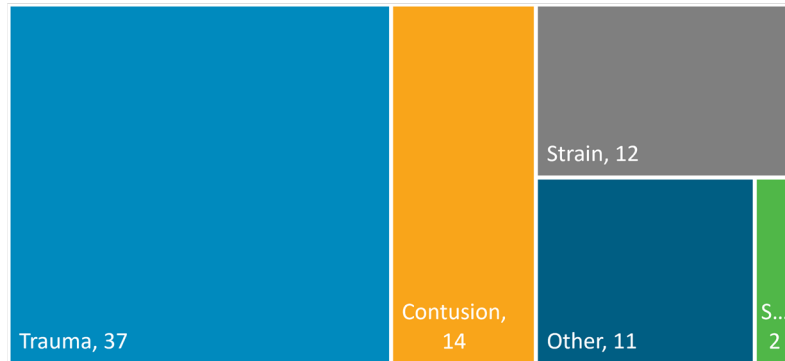


Vehicle Incidents



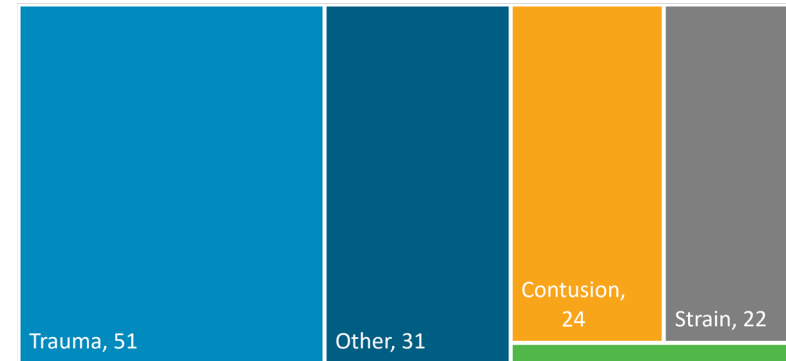
Lost Time due to Injuries

Breakdown of 76 Lost Time Cases

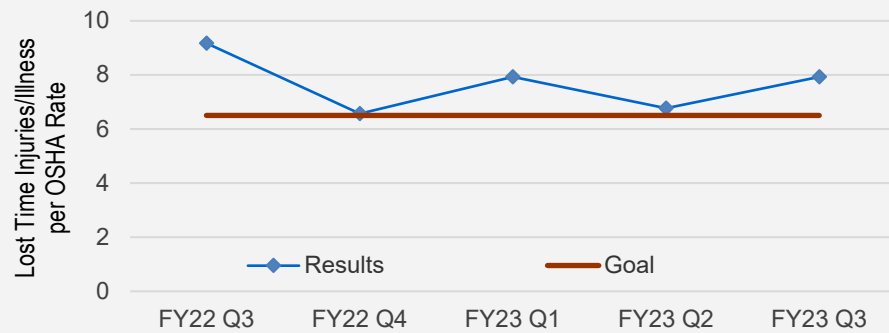


OSHA Recordable Injuries

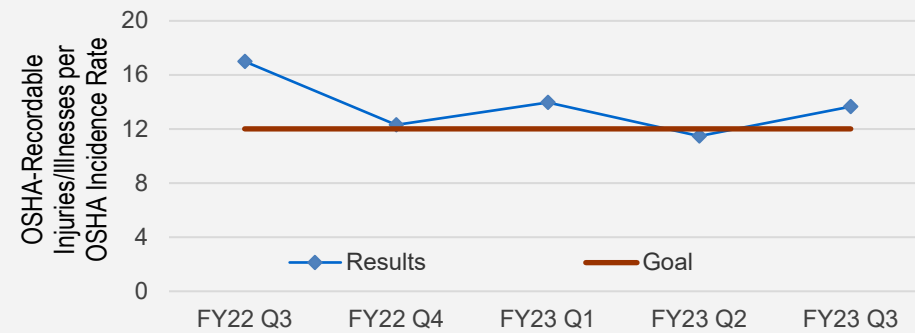
Breakdown of Recordable Injuries



Lost Time due to Injuries



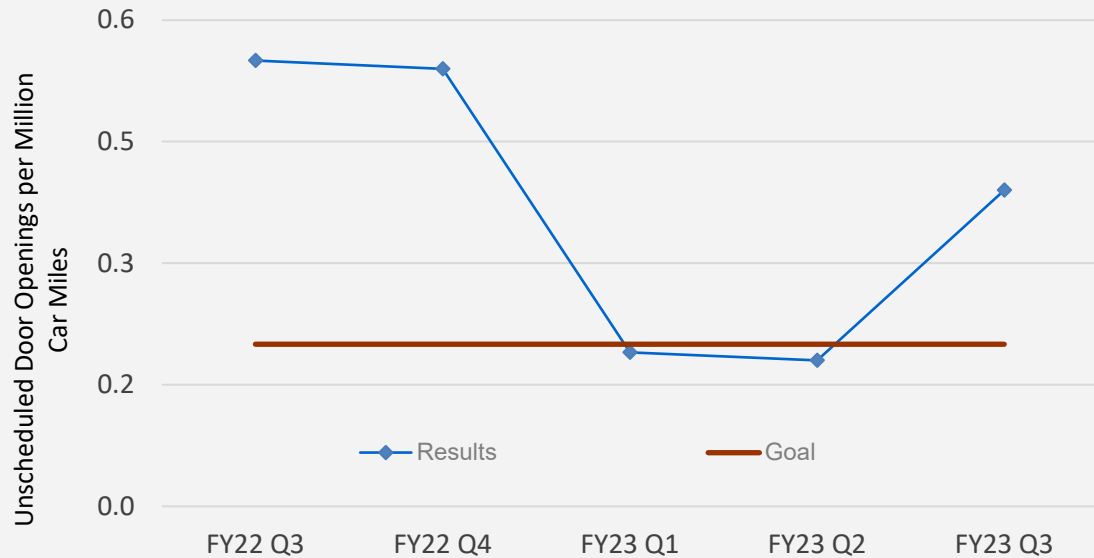
OSHA Recordable Injuries



Unscheduled Door Openings

- February 2023 – 3 Unscheduled Openings
 - 1 due to Train Operator Error
 - 2 due to Passenger use of Emergency Door Release
- March 2023 – 5 Unscheduled Openings
 - All due to Passenger use of Emergency Door Release

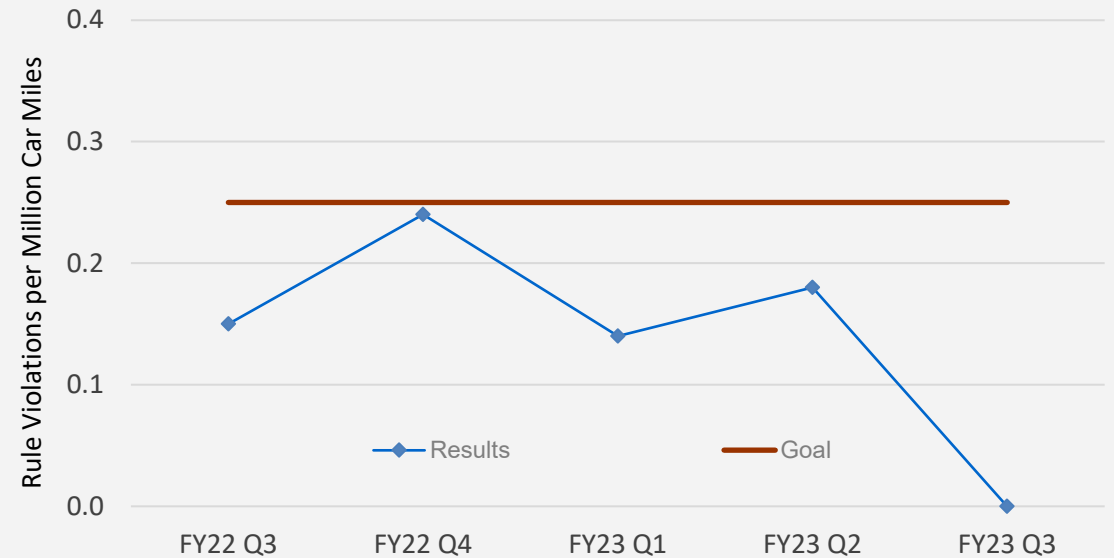
Unscheduled Door Openings



Rule Violations

- No rule violations in FY23 Q3

Rule Violations

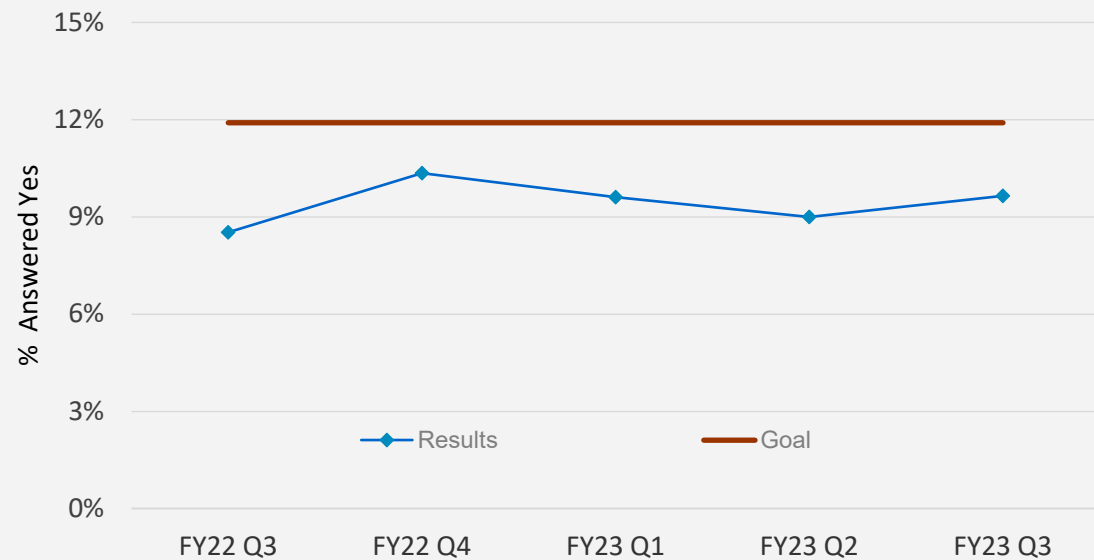


Police Presence

- Continued uniformed visibility, daytime and nighttime staffing at Civic Center

BART Police Presence

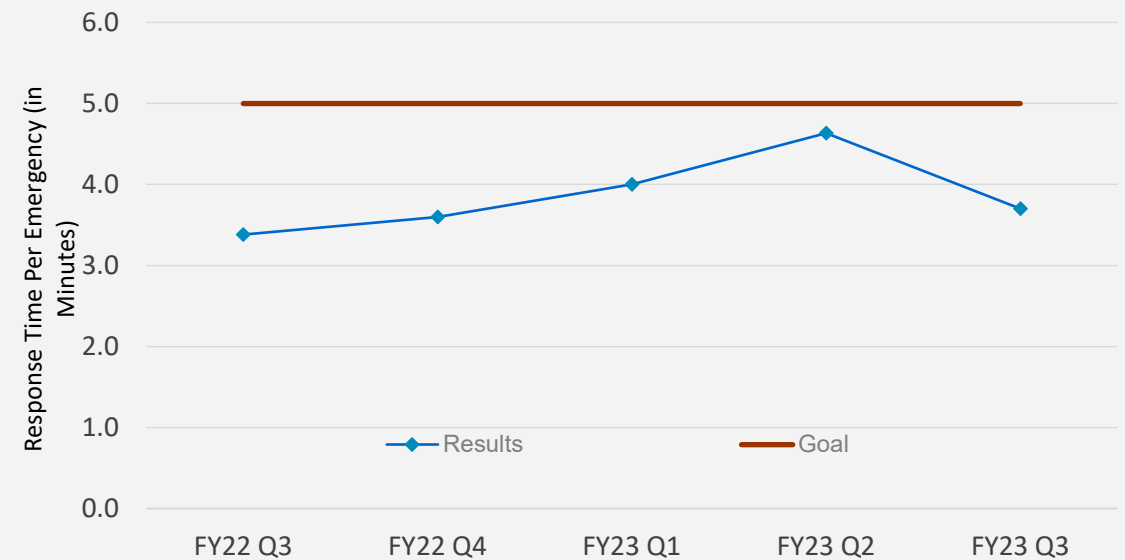
Did you see BART Police in the station today?
Did you see BART Police outside the station today?
Did you see BART Police on this train?



Police Response Time

- Goal met

BART Police Response Time



Bike Theft

- Goal changed to less than 50 bike thefts in Q2 of FY23
- Goal met

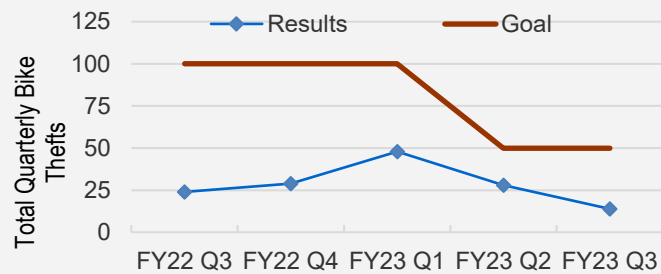
Auto Theft

- Goal changed to two auto thefts per 1,000 parking spaces in Q2 of FY23
- Goal not met

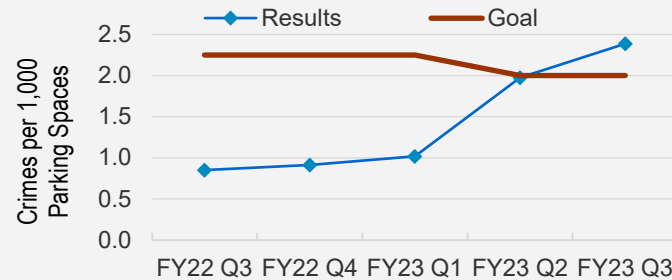
Auto Burglary

- Goal changed to 3.5 crimes per 1,000 parking spaces in Q2 of FY23
- Goal met

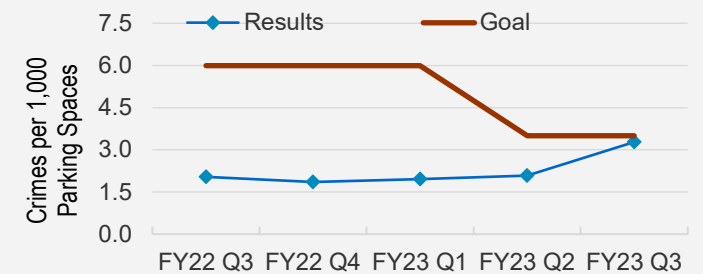
Bike Theft



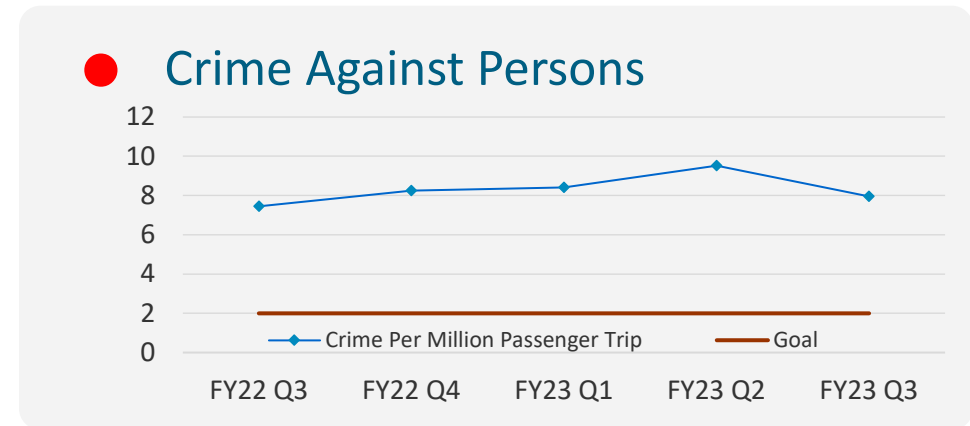
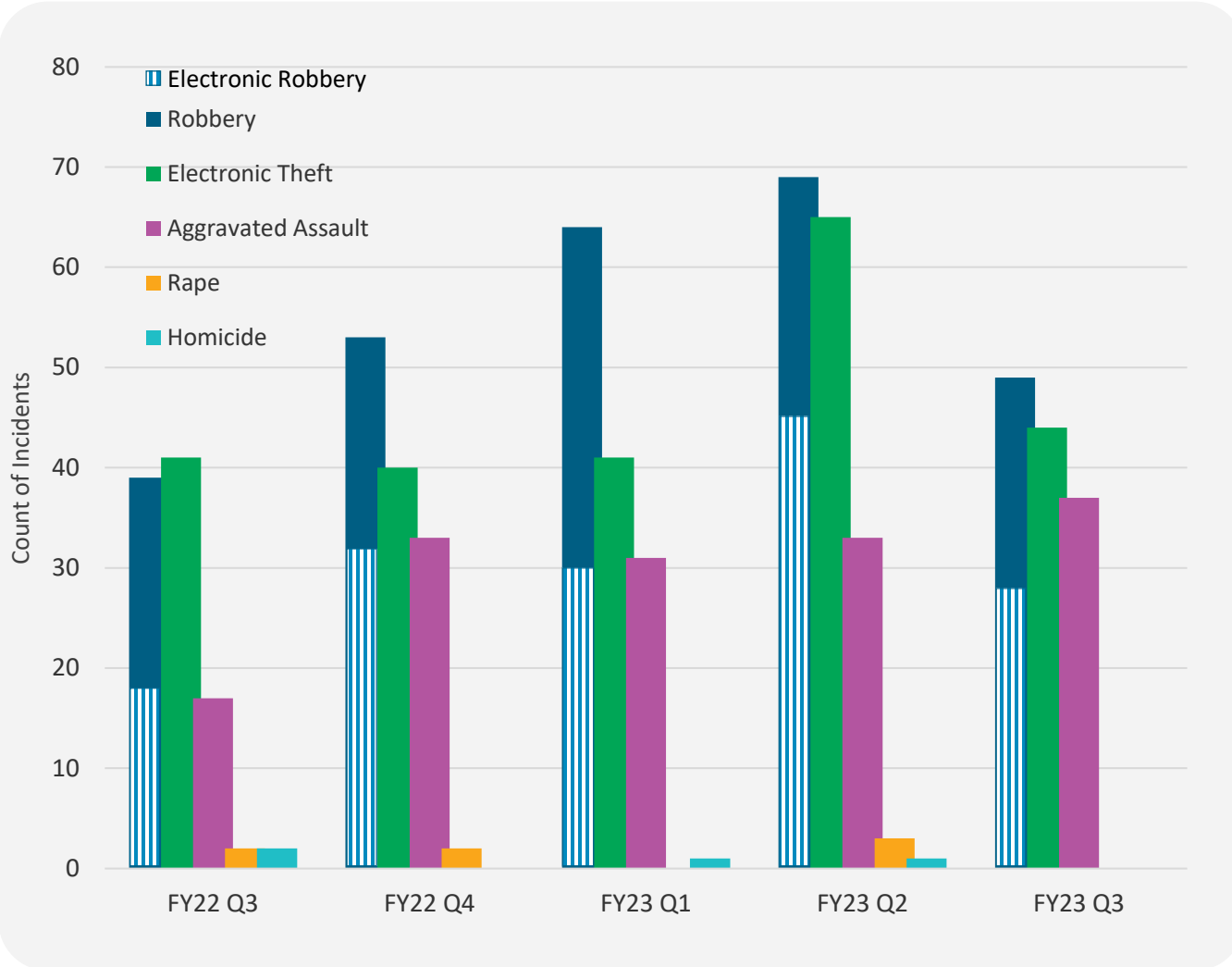
Auto Theft



Auto Burglary



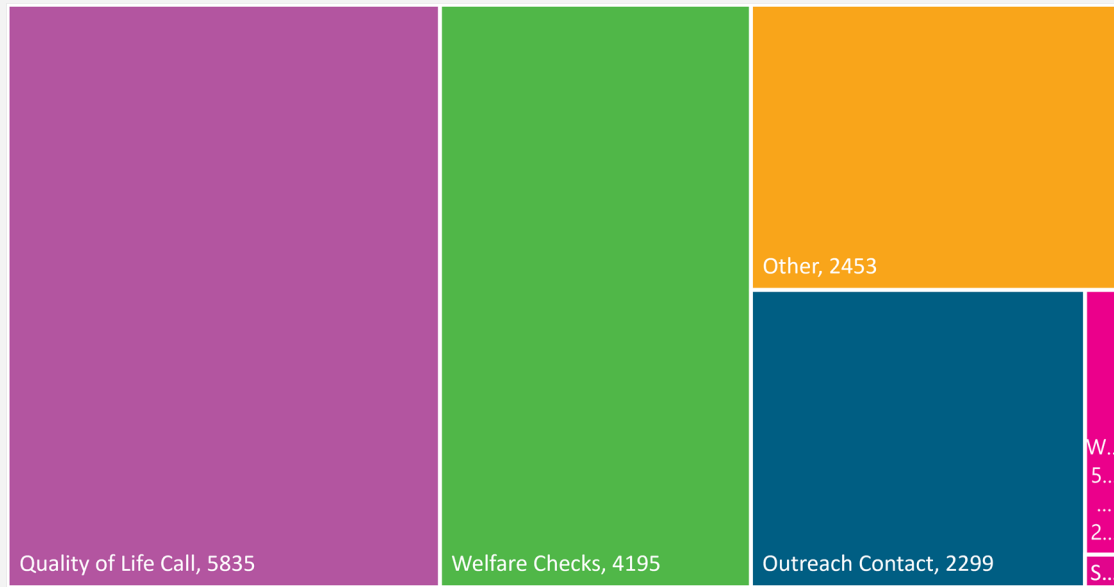
Crime – Against Persons



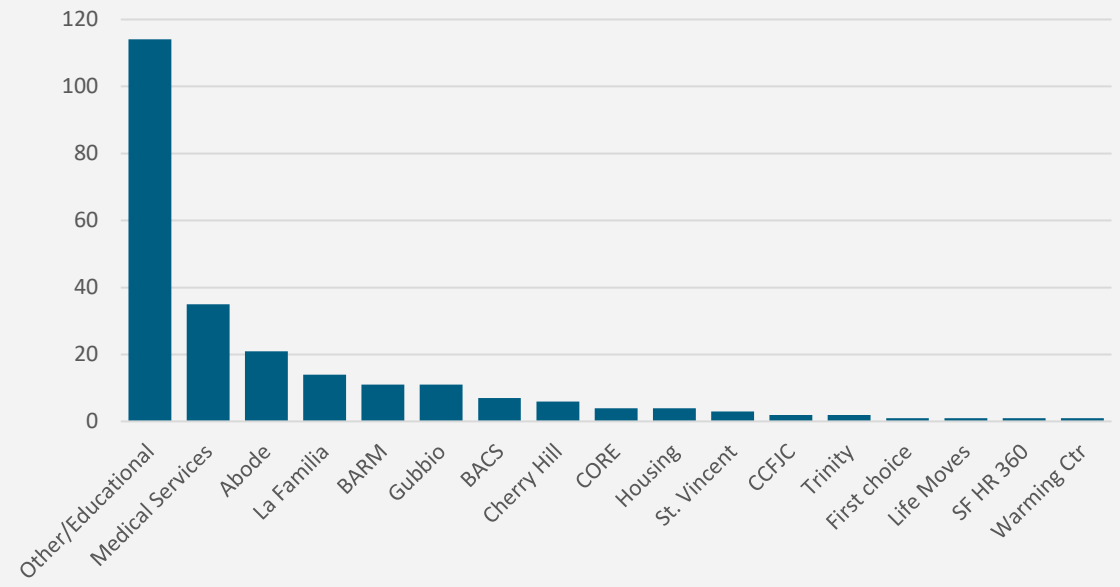
Progressive Policing – Contacts & Referrals

- Progressive Policing Contacts are recorded by Crisis Intervention Specialist (CIS) Staff based on their daily interactions

FY23 Q3 CIS Contacts by Type (15038)



FY23 Q3 Community Resource Referrals (238)



Bitfocus Application for Crisis Intervention Specialists

- Software installed; configuration underway
- Go-live scheduled for June 28th
- New Progressive Policing data for Q1 FY2024



Questions?

