



Quarterly Service Performance Review 3rd Quarter, FY20

January – March, 2020

Engineering & Operations Committee

May 28, 2020

SUMMARY CHART 3RD QUARTER FY 2020

PERFORMANCE INDICATORS	CURRENT QUARTER			PRIOR QTR ACTUALS		YEAR TO DATE		
	ACTUAL	STANDARD	STATUS	LAST	THIS QTR	ACTUAL	STANDARD	STATUS
				QUARTER	LAST YEAR			
Average Ridership - Weekday	314,816	397,895	NOT MET	403,426	404,136	376,902	404,777	NOT MET
Customers on Time								
Peak	92.69%	94.00%	NOT MET	90.28%	90.84%	90.96%	94.00%	NOT MET
Daily	93.96%	94.00%	NOT MET	92.00%	91.97%	92.42%	94.00%	NOT MET
Trains on Time								
Peak	86.83%	N/A	N/A	84.52%	84.79%	84.92%	N/A	N/A
Daily	89.01%	91.00%	NOT MET	86.94%	88.73%	87.64%	91.0%	NOT MET
Peak Period Transbay Car Throughput								
AM Peak	96.07%	97.50%	NOT MET	95.20%	96.15%	96.66%	97.50%	NOT MET
PM Peak	95.66%	97.50%	NOT MET	93.72%	98.37%	95.75%	97.50%	NOT MET
Car Availability at 4 AM (0400)	667	627	MET	630	626	643	631	MET
Mean Time Between Service Delays	5,477	4,650	MET	4,544	4,756	4,715	4,650	MET
Elevators in Service								
Station	99.00%	98.00%	MET	98.37%	97.97%	98.77%	98.00%	MET
Garage	97.80%	97.00%	MET	96.13%	96.10%	97.24%	97.00%	MET
Escalators in Service								
Street	93.87%	93.00%	MET	92.53%	90.03%	93.82%	93.00%	MET
Platform	96.57%	96.00%	MET	96.77%	96.73%	96.78%	96.00%	MET
Automatic Fare Collection								
Gates	99.40%	99.00%	MET	99.36%	99.57%	99.35%	99.00%	MET
Vendors	99.00%	95.00%	MET	98.93%	98.67%	98.93%	95.00%	MET
Wayside Train Control System	0.94	1.00	MET	1.56	0.68	1.25	1.00	NOT MET
Computer Control System	0.12	0.08	NOT MET	0.105	0.243	0.082	0.08	NOT MET
Traction Power	0.36	0.20	NOT MET	0.24	0.10	0.21	0.20	NOT MET
Track	0.18	0.30	MET	0.09	0.08	0.11	0.30	MET
Transportation	0.52	0.50	NOT MET	0.46	0.41	0.51	0.50	NOT MET
Environment Outside Stations	67.0%	66.0%	MET	64.0%	63.2%	65.3%	66.0%	NOT MET
Environment Inside Stations	65.8%	64.0%	MET	62.4%	61.3%	63.2%	64.0%	NOT MET
Station Vandalism	71.8%	73.0%	NOT MET	68.9%	71.4%	70.4%	73.0%	NOT MET
Train Interior Cleanliness	66.7%	70.0%	NOT MET	65.4%	67.1%	66.3%	70.0%	NOT MET
Train Temperature	84.3%	82.0%	MET	80.0%	83.5%	81.0%	82.0%	NOT MET
Customer Service	75.9%	75.0%	MET	74.3%	73.9%	74.7%	75.0%	NOT MET
Homelessness	23.2%	N/A	N/A	24.7%	22.8%	24.5%	N/A	N/A
Fare Evasion	19.9%	N/A	N/A	21.3%	20.2%	20.5%	N/A	N/A
Customer Complaints								
Complaints per 100,000 Passenger Trips	12.26	5.07	NOT MET	11.82	12.17	12.42	5.07	NOT MET
Safety								
Station Incidents/Million Patrons	0.85	2.00	MET	0.63	2.19	1.02	2.00	MET
Vehicle Incidents/Million Patrons	0.31	0.60	MET	0.32	0.63	0.35	0.60	MET
Lost Time Injuries/Illnesses/Per OSHA	3.85	6.50	MET	7.52	3.96	8.21	6.50	NOT MET
OSHA-Recordable Injuries/Illnesses/Per OSHA	9.69	12.00	MET	14.63	8.07	14.56	12.00	NOT MET
Unscheduled Door Openings/Million Car Miles	0.160	0.200	MET	0.050	0.050	0.187	0.200	MET
Rule Violations Summary/Million Car Miles	0.260	0.250	NOT MET	0.150	0.260	0.187	0.250	MET
Police								
BART Police Presence	12.6%	12.0%	MET	11.4%	10.4%	11.3%	12.0%	NOT MET
Quality of Life per million riders	73.62	N/A	N/A	65.64	92.32	69.55	N/A	N/A
Crimes Against Persons per million riders	4.82	2.00	NOT MET	4.83	4.55	4.39	2.00	NOT MET
Auto Burglaries per 1,000 parking spaces	4.85	6.00	MET	6.26	6.07	5.56	6.00	MET
Auto Thefts per 1,000 parking spaces	1.02	2.25	MET	1.39	0.92	1.23	2.25	MET
Police Response Time per Emergency Incident (Minutes)	3.58	5.00	MET	4.74	5.08	4.66	5.00	MET
Bike Thefts (Quarterly Total and YTD Quarterly Average)	42	100.00	MET	62	41	73	100.00	MET

LEGEND:

Goal Met

Goal Unmet by < 5%

Goal Unmet by > 5%

FY20 Third Quarter Overview



- Average Weekday Ridership: Down slightly in January and February. Significantly impacted by Shelter Orders in March. Overall down 20.9% compared to same quarter last year.
- Train on time performance: Peak period was up 2.3%, all day up 2.1%
- ROW Equipment Reliability: Train Control, Track and Rail Cars met goal; Computer Systems and Traction Power did not meet goal
- Station Equipment Availability: All station equipment; Elevators (Station), Escalators (Platform), Escalators (Street), Elevators (Garage), Ticket Machines and Fare Gates met goal.
- Passenger Environment: Environment Inside Stations, Environment Outside the Station, Customer Service, Train Temperature, Vandalism, Grounds, Train Cleanliness and Police Presence improved. Homeless and Fare Evasion decreased
- Total Customer Complaints: decreased from last quarter

eBART Service Report



eBART SERVICE REPORT FOR 3RD QUARTER FY20										
PERFORMANCE INDICATORS	CURRENT QUARTER			PRIOR QTR ACTUALS		FY20 YEAR TO DATE				
	ACTUAL	STANDARD	STATUS	LAST QUARTER	THIS QTR LAST YEAR	ACTUAL	STANDARD	STATUS		
Ridership										
Average Ridership - Weekday	6,650	6,530	MET		8,173	7,855	7,735	6,530	MET	
Average Ridership - Weekend	1,662	N/A	N/A		2,063	2,025	1,982	N/A	N/A	
Service Delivery										
On-Time Performance	95.84%	95.00%	MET		93.59%	94.17%	94.13%	95.00%	NOT MET	
Transfers to BART										
On-Time Connections	98.50%	98.50%	MET		97.56%	98.30%	98.29%	98.50%	NOT MET	
Equipment										
Train Mean Distance Between Failures (miles)	53,019	14,000	MET		36,838	27,429	17,304	14,000	MET	
Station Elevator Availability	98.92%	98.50%	MET		99.96%	99.97%	99.43%	98.50%	MET	
Station Escalator Availability	98.73%	96.00%	MET		99.27%	98.05%	99.07%	96.00%	MET	
Customer Feedback										
Complaints/Hundred Thousand Patrons	1.51	7.00	MET		0.69	13.54	3.42	7.00	MET	
Safety										
Passenger Incidents	0.00	0.00	MET		0.00	0.00	0.00	0.00	MET	
Workplace Injuries	1.00	0.00	NOT MET		1.00	1.00	2.00	0.00	NOT MET	

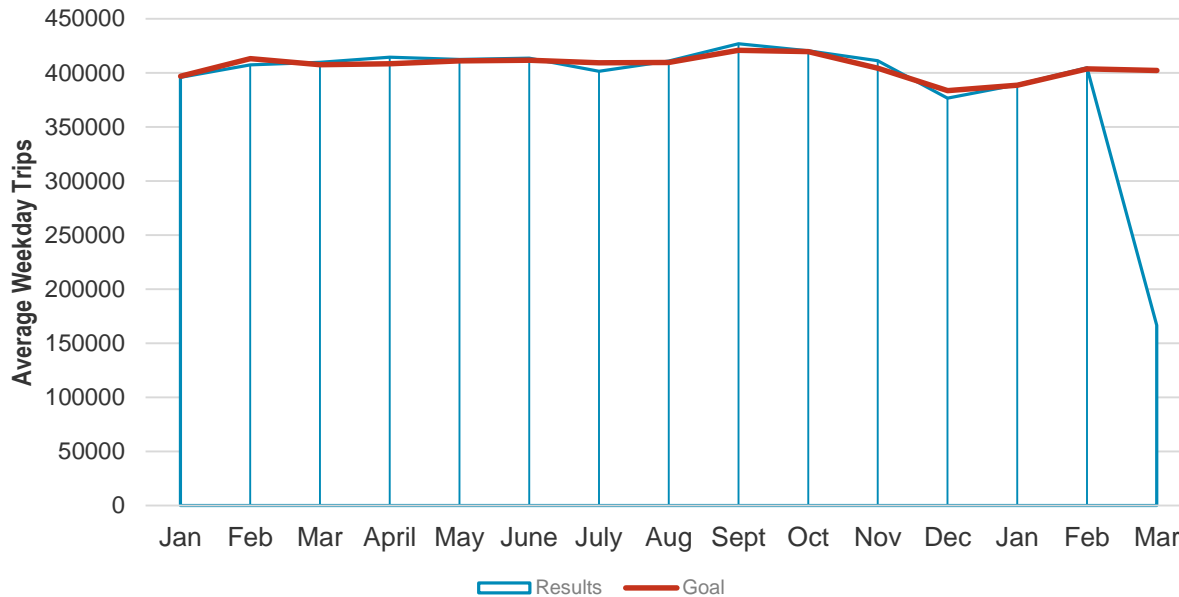
LEGEND:

Goal Met

Goal Unmet by <= 5%

Goal Unmet by > 5%

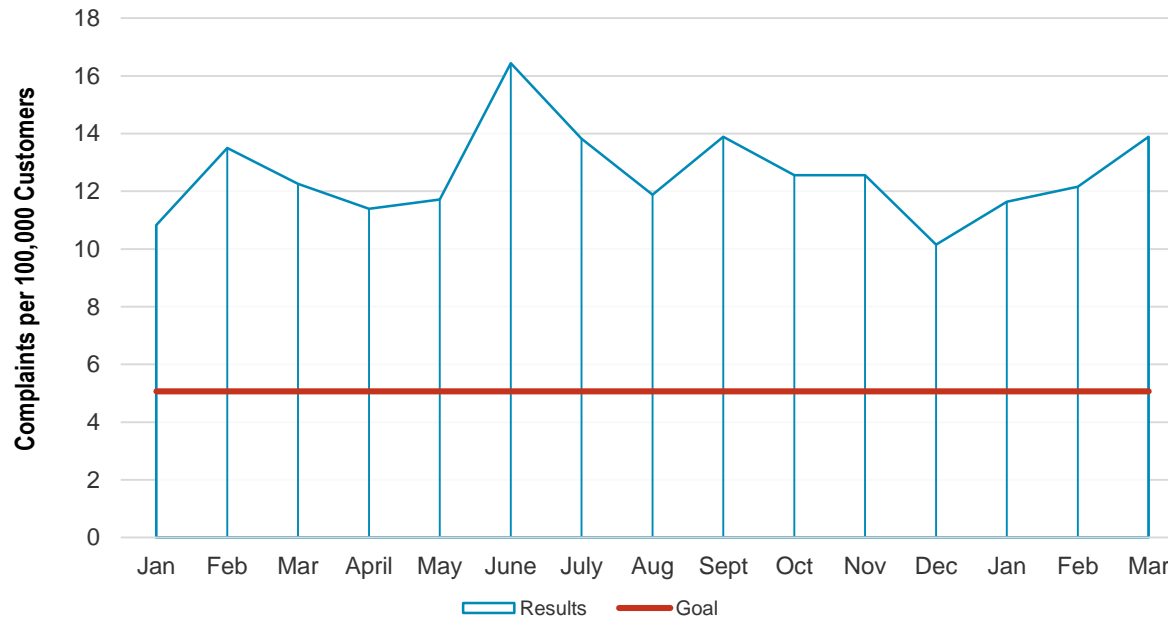
Customer Ridership - Weekday Trips



Goal:	397,895
Actual:	314,816
Met:	No

- January and February average weekday ridership decreased by 1.8% and 0.7%, respectively
- March average weekday ridership decreased by 59.3% due to COVID-19 shelter-in-place order

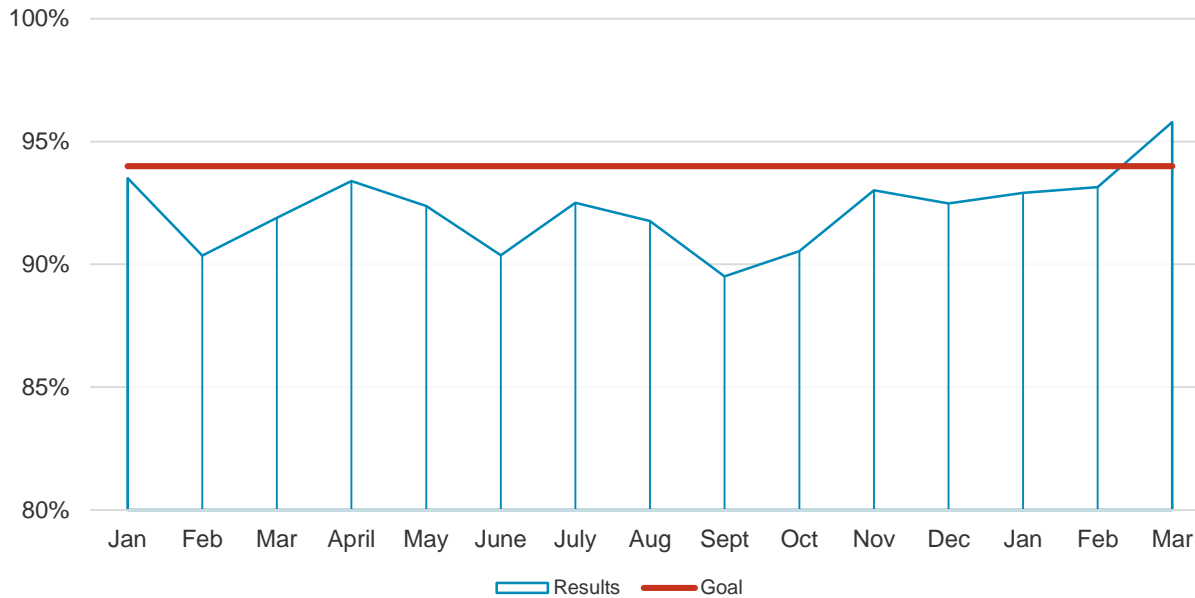
Customer Complaints



Goal:	5.07
Actual:	12.26
Met:	No

- **Total complaints received** decreased 18.5% from last quarter, 20.9% when compared with third quarter FY19.
- **Increased Complaints:** Passenger Information, Service, Station Cleanliness and Train Cleanliness
- **Decreased Complaints:** AFC, Apps, Bike Program, Biohazard, M&E, Parking, Passenger Information, Personnel, Police, Policies, Quality of Life, Trains and Announcements
- **Compliments** down 16% from last quarter and 22% when compared with third quarter FY19

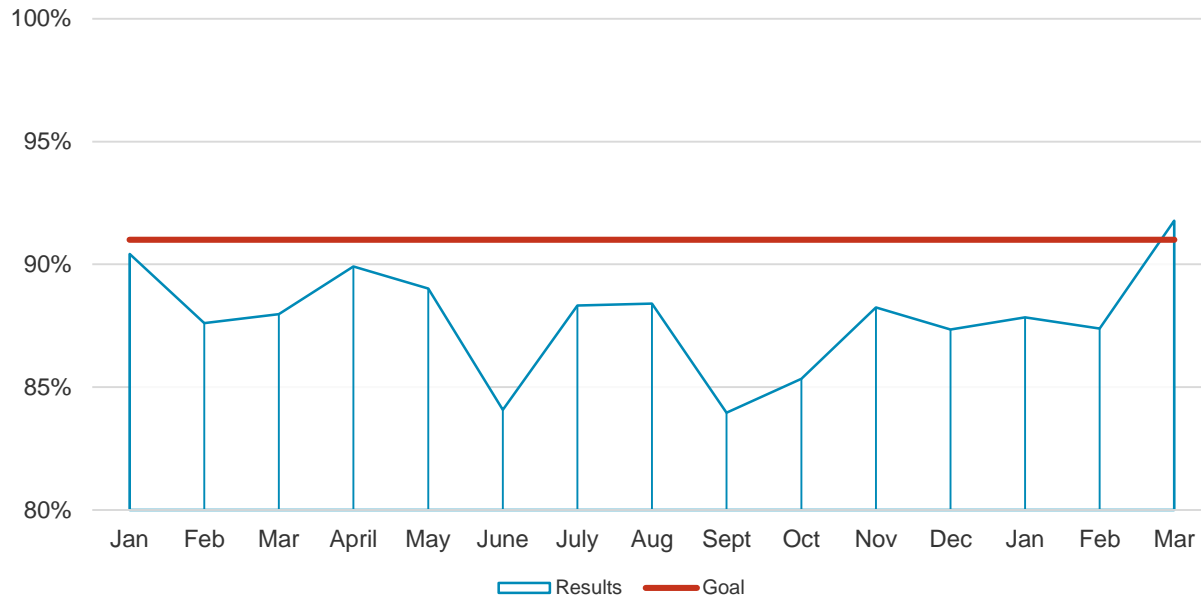
On-Time Service - Customer



Goal:	94.00%
Actual:	93.96%
Met:	No
Delay Source	% of Trains
POLICE ACTIONS	22.7%
VEHICLE	12.4%
TRAIN CONTROL	11.4%
VANDALISM	7.3%
TRANSPORTATION	6.3%
PATRON ILL	5.4%
PERSON ON TRACKWAY	5.4%
MISC OTHER	4.8%
CONGESTION	4.5%
TRACTION POWER	4.4%

- 2.00% improvement over last quarter
- Major Delay Contributors: Police 22.7%, People 18.1%, Equipment 16%, Trains 12.4%

On-Time Service - Train

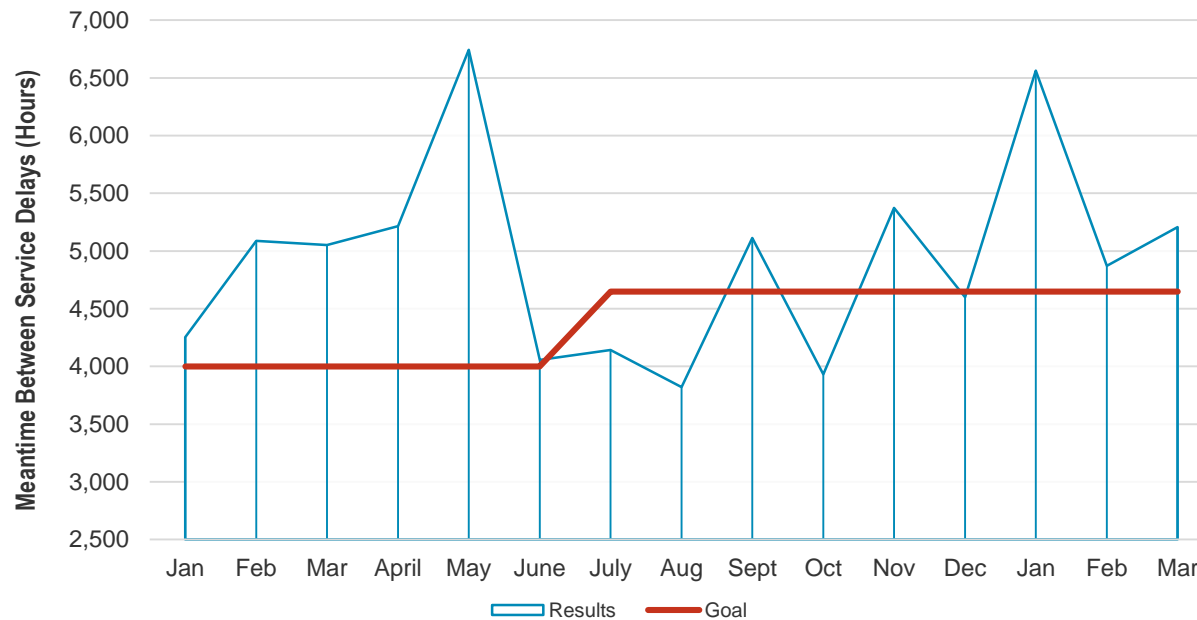


Goal:	91.00%
Actual:	89.01%
Met:	No

#	Date	Location	Description	Time	Cause	Trains
1	02/15/20	E.C.D. Norte	BPD Hold (Weapon Suspect)(Shoots Fired)	1358-2231	People	93
2	01/06/20	Oakland Wye	Track Maintenance(Rail Grease Application In Wye)	0522-1721	Procedure	75
3	01/10/20	Daly City	3rd Rail Power	1146-1850	Equip	74
4	01/08/20	Concord	Person On Trackway (Manual Operation Req.)(Unstable Person)	1705-EOR	People	73
5	01/22/20	A05 I-Lk	Routing (Switch)(Cranks Installed)(100 & 500 Made Own Turn)	1352-1924	Equip	67
6	02/20/20	Lake Merritt	FOTF Propulsion (Lose Wire On Key Switch Relay)	1025-1616	Vehicle	56
7	02/27/20	12th Street	FOTF Trainline (Propulsion)(VATC Fault)	1508-1853	Vehicle	52
8	03/04/20	Glen Park	Person Reported Under Train (Person Jumped Infront of Train)	1136-1254	People	51
9	01/02/20	W. Oakland	Brake (Two Cars Already Cut-out)(Delays @ EOL & Turnbacks)	0832-1020	Vehicle	45
10	02/09/20	B.F Merge I-Lk	ICS/VPI Comm. Link Failed	1106-2130	Equip	43

Car Equipment – Reliability

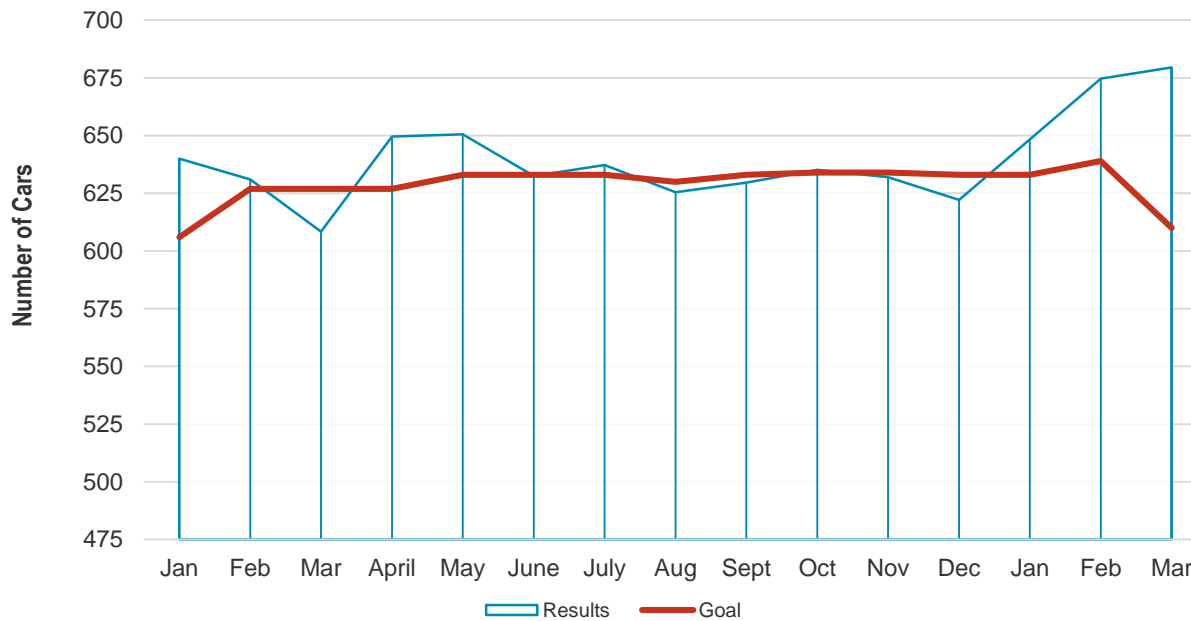
Meantime Between Service Delays



Goal:	4,650 Hours
Actual:	5,477 Hours
Met:	Yes

- Up by 21% from last quarter, 15% from third quarter FY19
- Legacy Fleet MTBSD: 7138
- FOTF MTBSD: 1843
 - VATC software update complete
 - Electrical connector inspection – 61% complete

Car Equipment – 4:00AM Availability

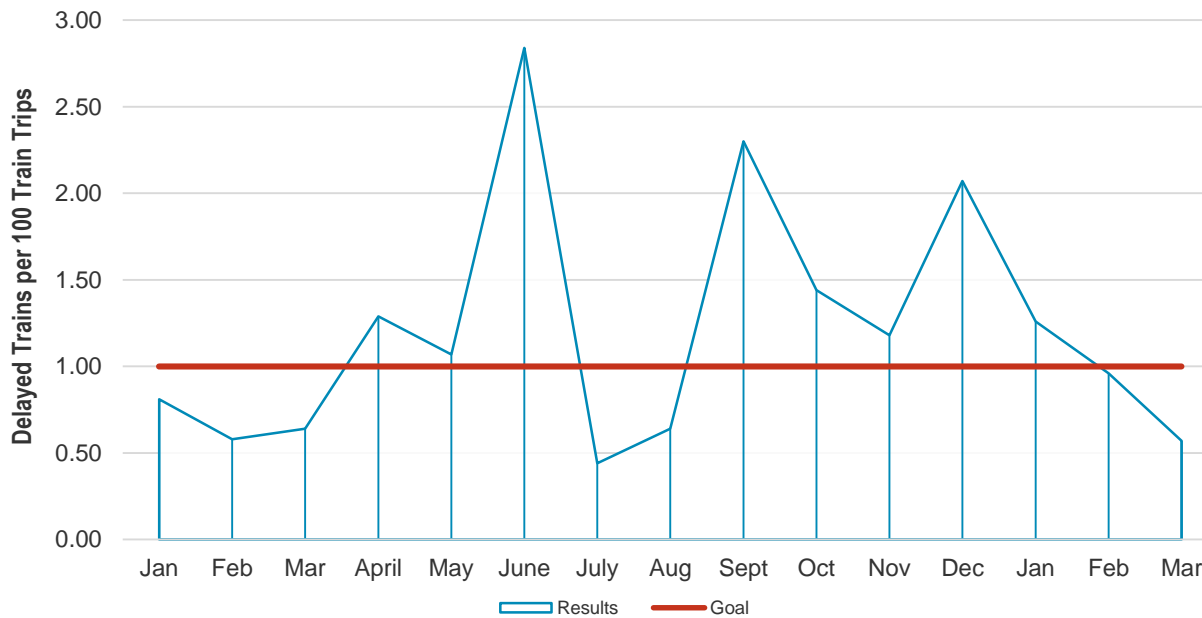


Goal:	627
Actual:	667
Met:	Yes

- Met Goal
- 159 FOTF cars received through third quarter FY20

Wayside Train Control System

Delayed Trains per 100 Train Trips

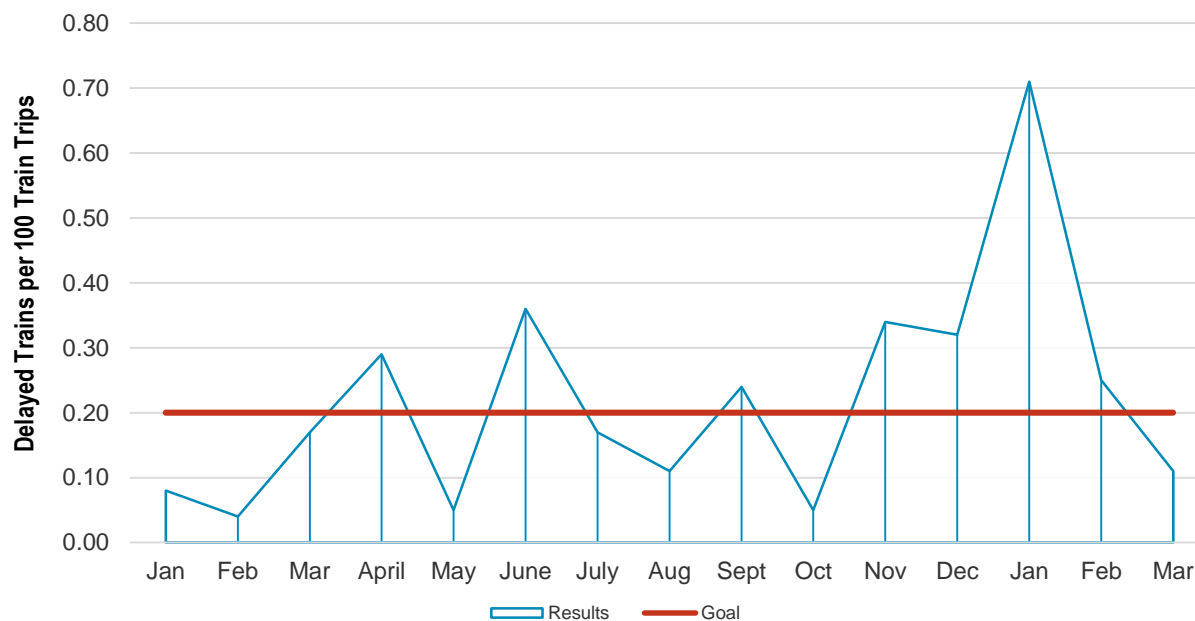


Goal:	1.00
Actual:	0.94
Met:	Yes

- Goal Met
- Program Stop and ID Antenna Project Phase 2 completed, Phase 3 initiated
- NSMUX equipment A75/A77 Hayward Yard in Revenue Service on 03/31/30
- TX Loops / Receiver Coils Replacement – completed 29 blocks this quarter

Traction Power

Delayed Trains per 100 Train Trips

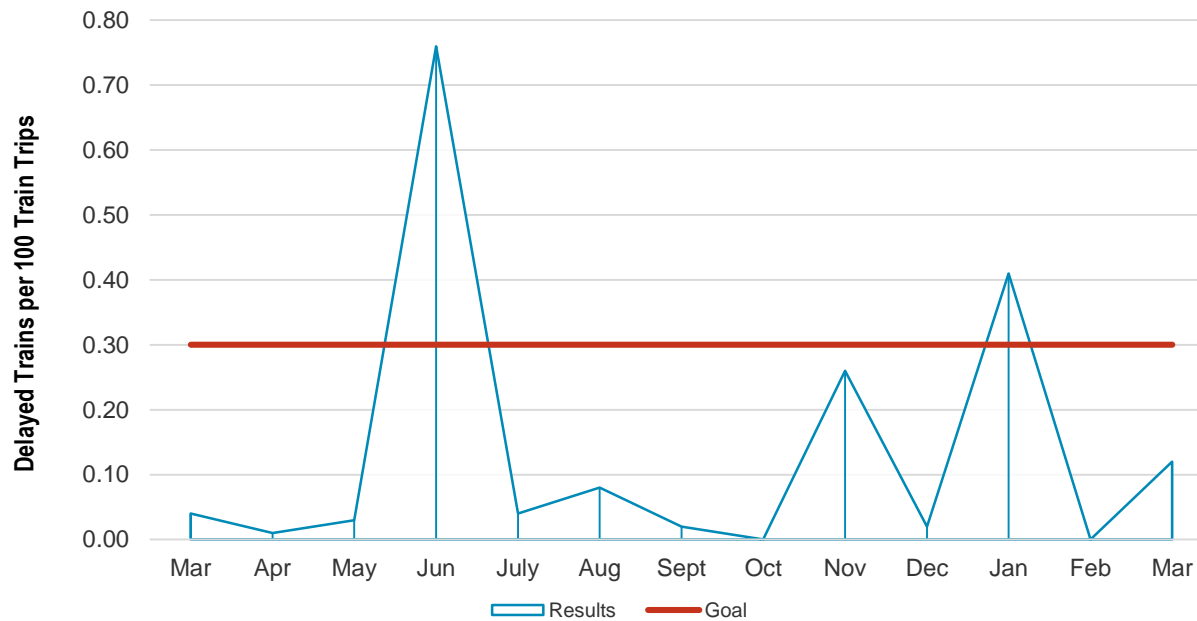


Goal:	0.20
Actual:	0.36
Met:	No

- January 10, Daly City negative return imbalance – replaced insulated joints and added more cabling to balance current across rails
- February 27, 12th Street failed Splice Bar – replaced

Track

Delayed Trains per 100 Train Trips

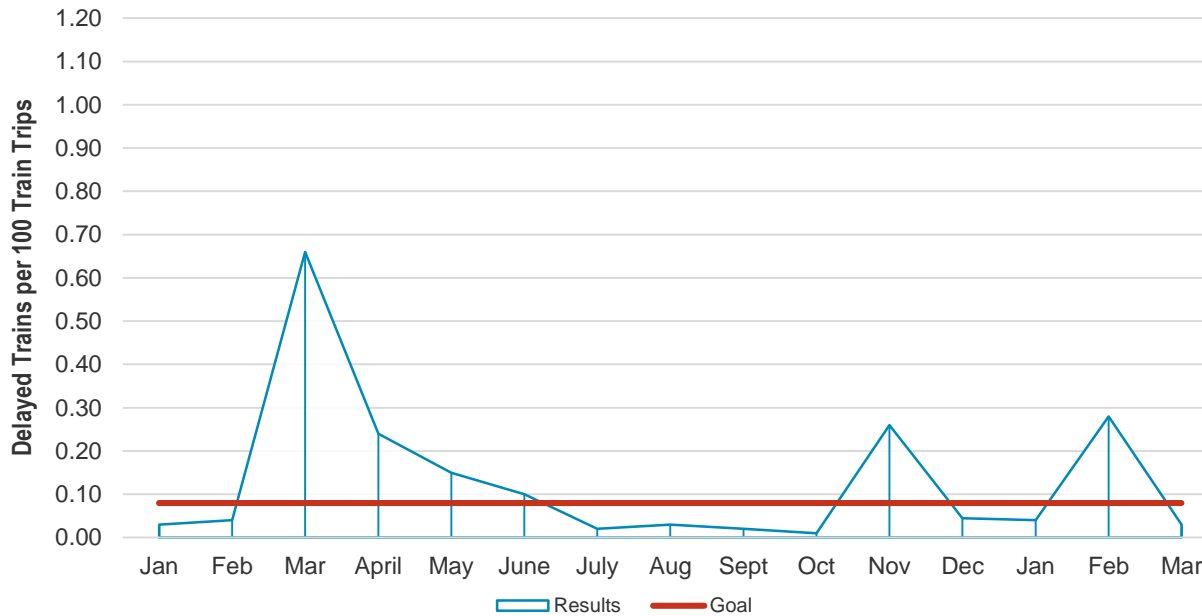


Goal:	.30
Actual:	.18
Met:	Yes

- Goal met
- Spike in January due to excessive grease applied to restraining rail in curve in Oakland Wye
- Installed Vibration Dampers reducing 30 dba in another curve in Oakland Wye
- Completed annual goals for Rail Relay, DF pads and Track Geometry

Computer Control System

Delayed Trains per 100 Train Trips

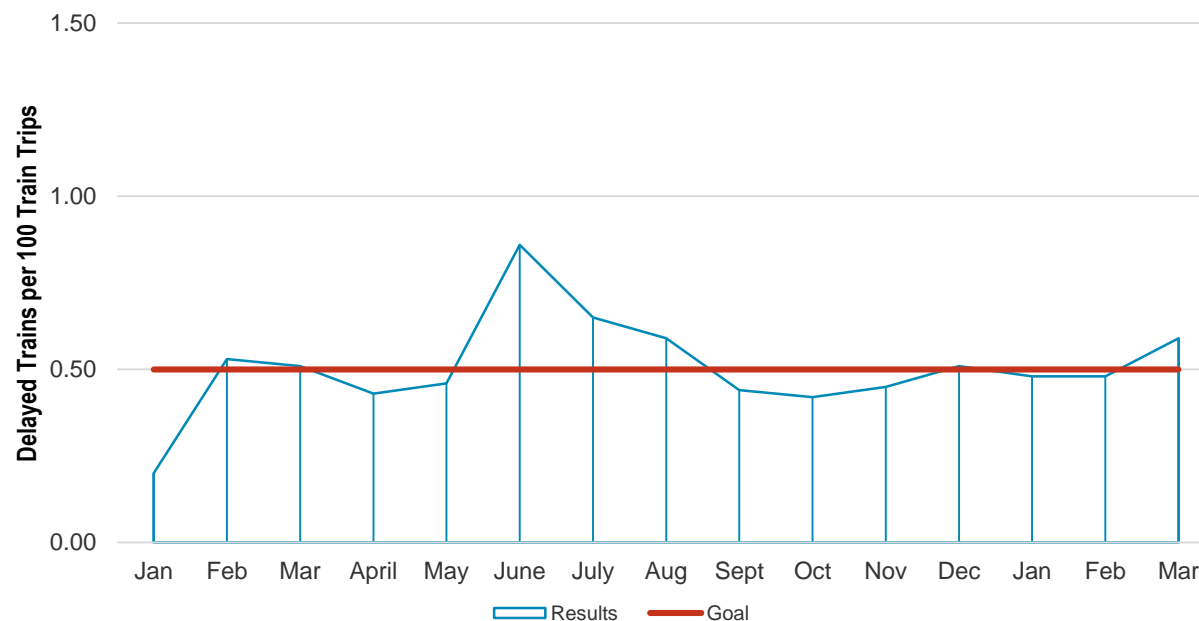


Goal:	.08
Actual:	.12
Met:	No

- February 9 – Power Failure at Hayward Yard caused Train Control failure
- February 4 – Train Control not communicating with operating computer system (ICS)
- Engineering working on improving equipment logging capabilities

Transportation

Delayed Trains per 100 Train Trips

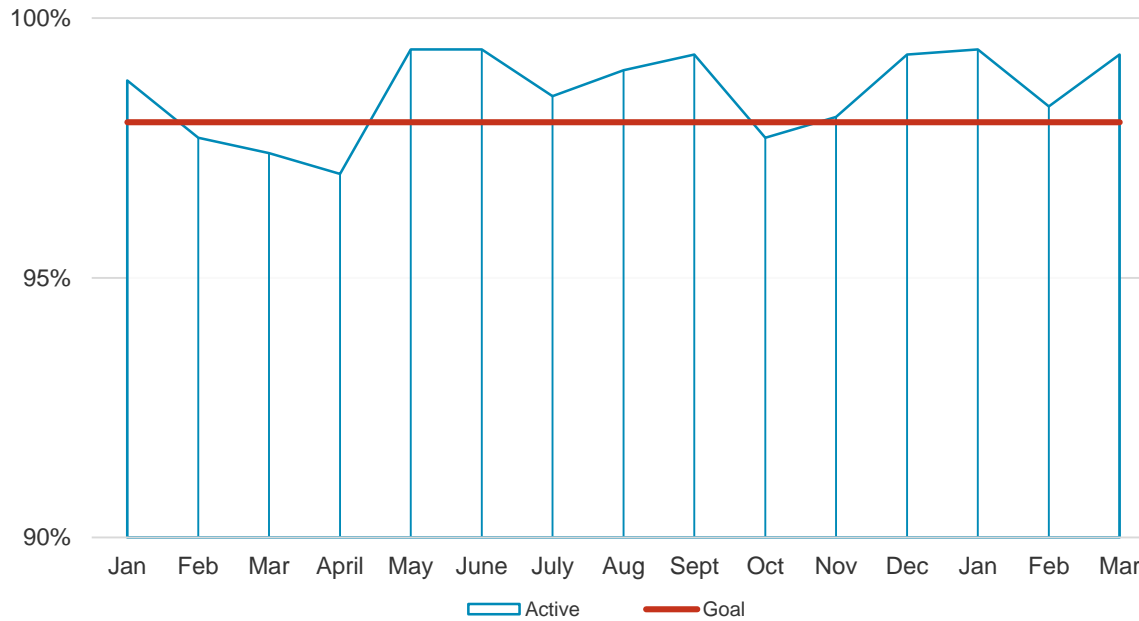


Goal:	0.50
Actual:	0.52
Met:	No

JAN	FEB	MAR
0.48	0.48	0.59

- March - Slight increase in staffing shortages due to COVID-19 leave
- Staffing stabilized by end of March

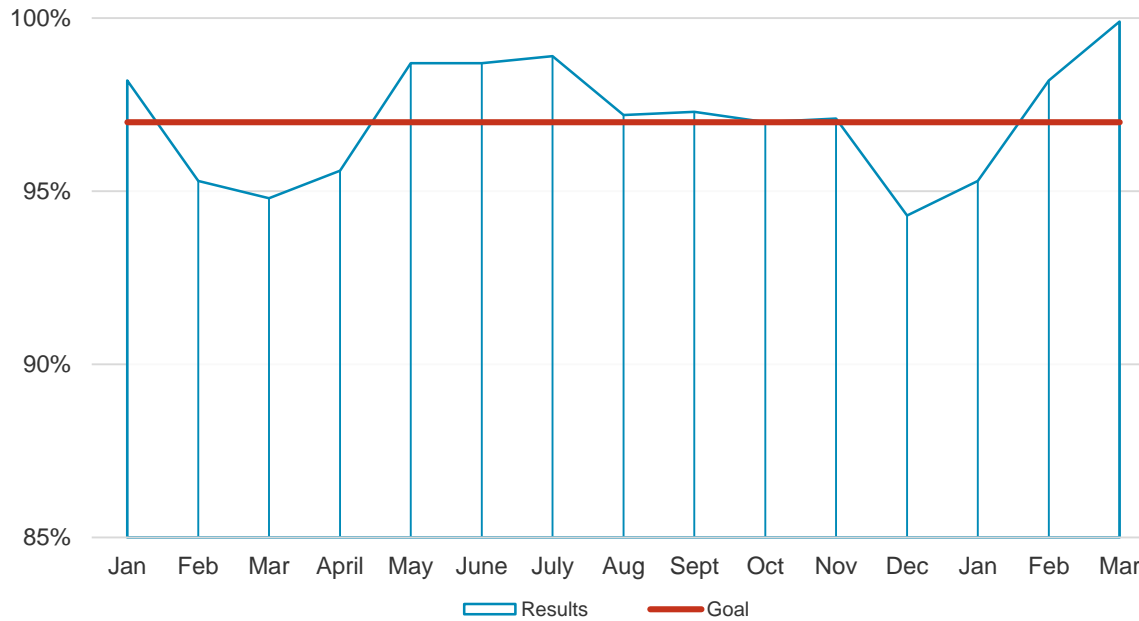
Elevator Availability - Stations



Goal:	98.00%
Actual:	99.00%
Met:	Yes

- No major unplanned long term outages
- Warm Springs station vandalism resulted in a Unit 388 hours out of service
- Warm Springs street elevator out of service 130 hours for hydraulic supply line repair

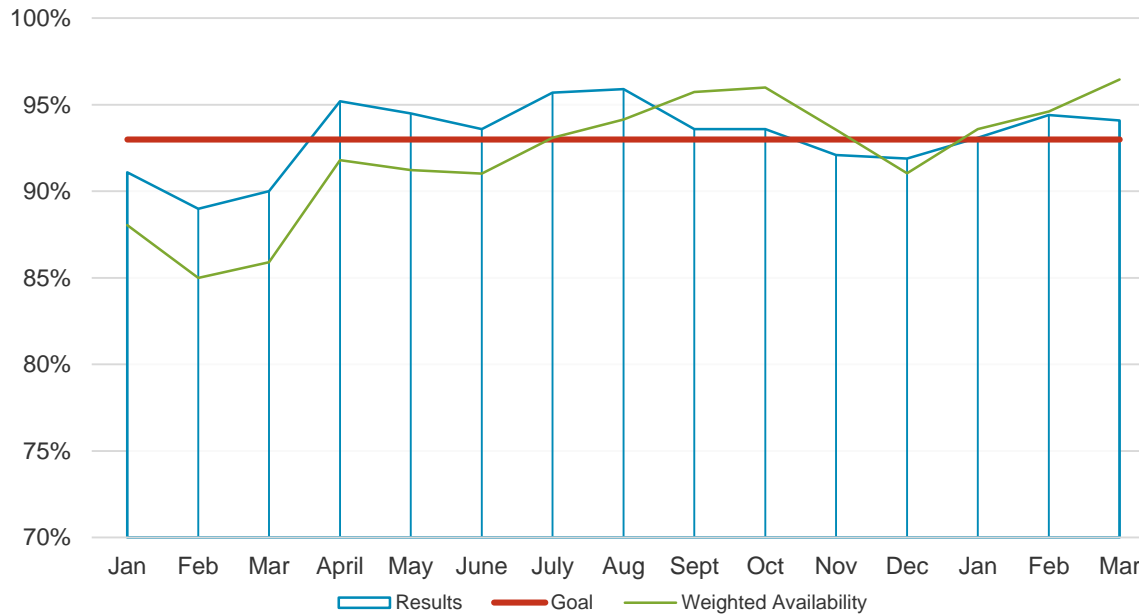
Elevator Availability - Garage



Goal:	97.00%
Actual:	97.80%
Met:	Yes

- Campaign to install shutdown impacted January availability

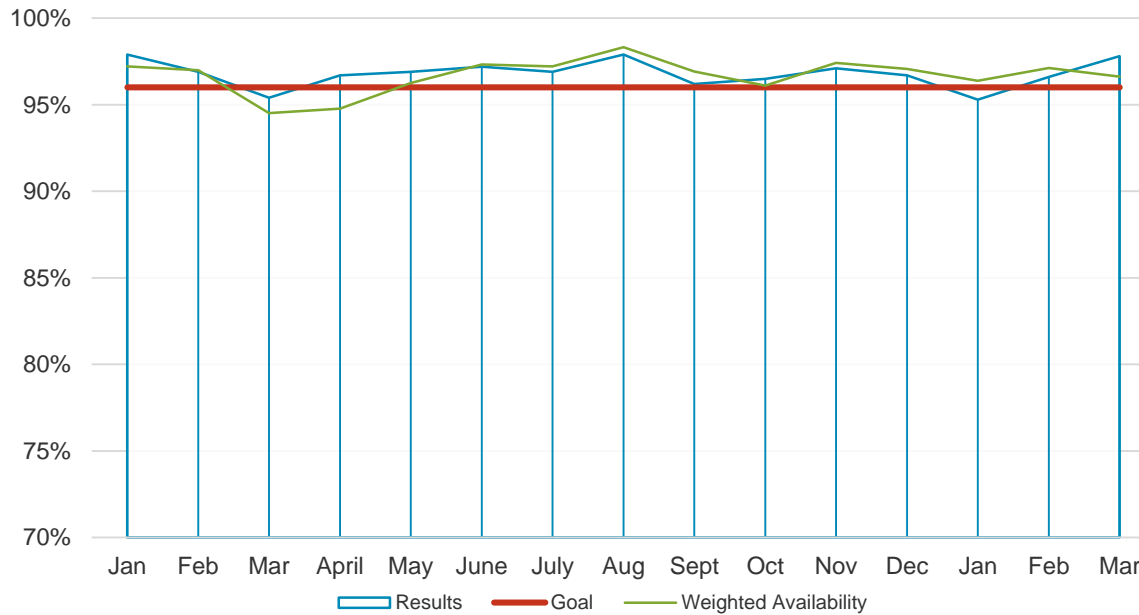
Escalator Availability - Street



Goal:	93.00%
Actual:	93.87%
Met:	Yes

- Civic Center Street unit planned step change replacement, 350 hours out of service
- Montgomery Street street unit out of service for 908 hours for unplanned electrical repair

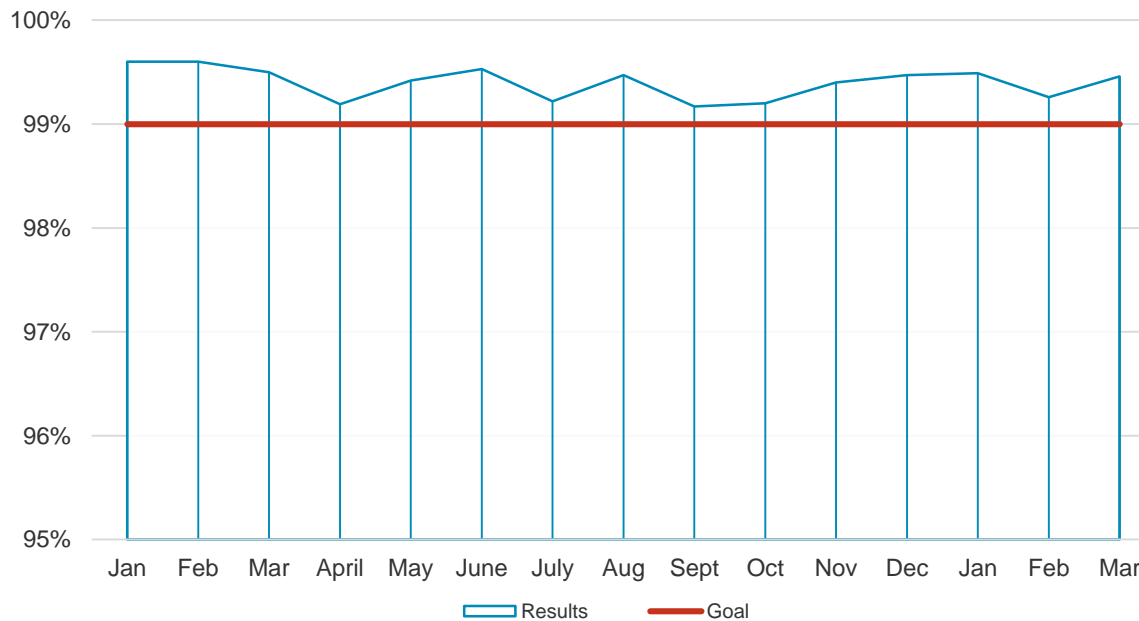
Escalator Availability - Platform



Goal:	96.00%
Actual:	96.57%
Met:	Yes

- South San Francisco platform unit out of service for 1250 hours for unplanned bull gear and step chain replacement
- Dublin/Pleasanton platform unit out of service for 792 hours for unplanned handrail replacement and associated repair

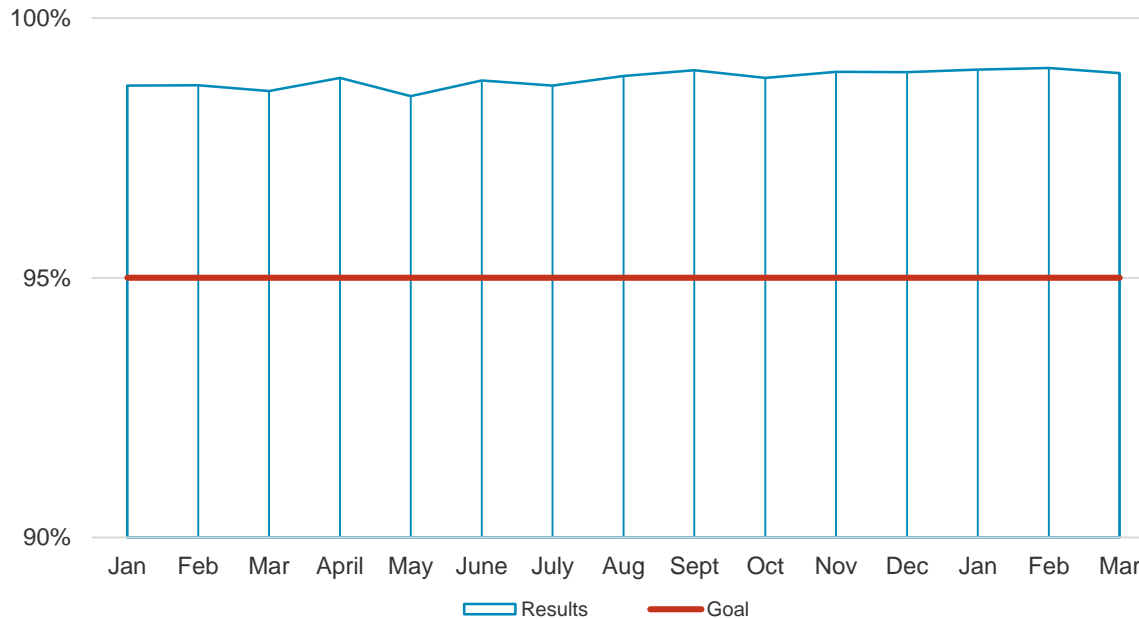
AFC Gate Availability



Goal:	99.00%
Actual:	99.40%
Met:	Yes

- Completed Cinch Modification on A, K, M Lines; started R line
- Installation of Richmond Swing Fare Gate delayed by closure of lab, now set for May

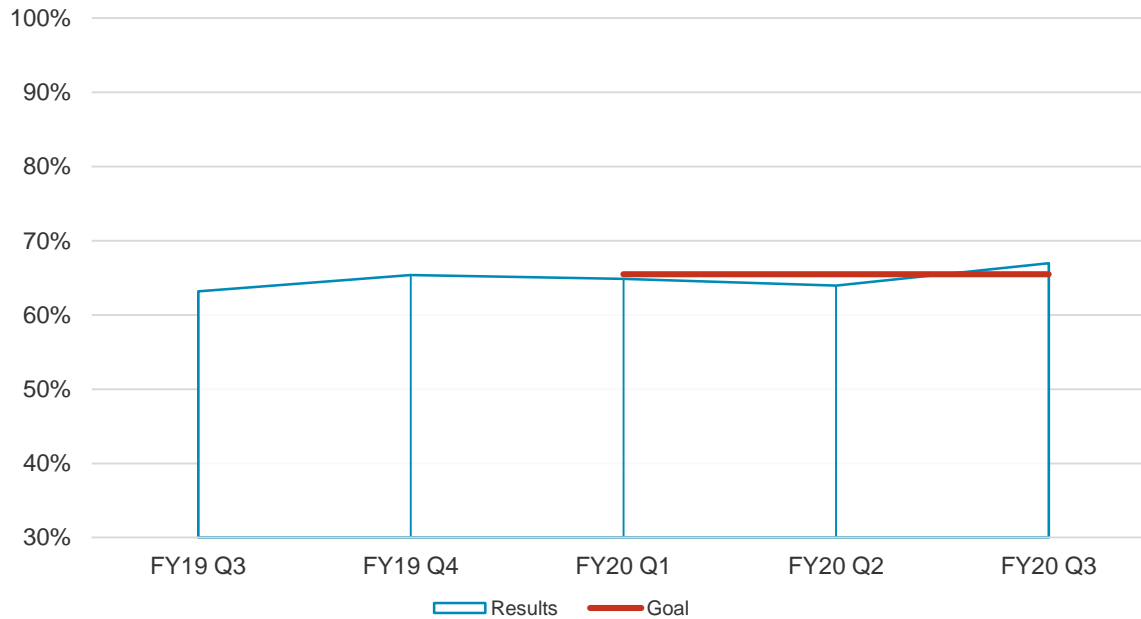
AFC Vendor Availability



Goal:	95.00%
Actual:	99.00%
Met:	Yes

- Clipper Upgrade Vendors installed in paid area at 36 stations districtwide; awaiting results of parking app pilot before completing remaining stations.
- Initiated Pin Pads upgrades, 24 of 503 Ticket Vendor Machines completed
- Scheduled Modification of SFO to Clipper Only for week of May 25, 2020

Environment – Outside Stations



Goal:	66.0%
Actual:	67.0%
Met:	Yes

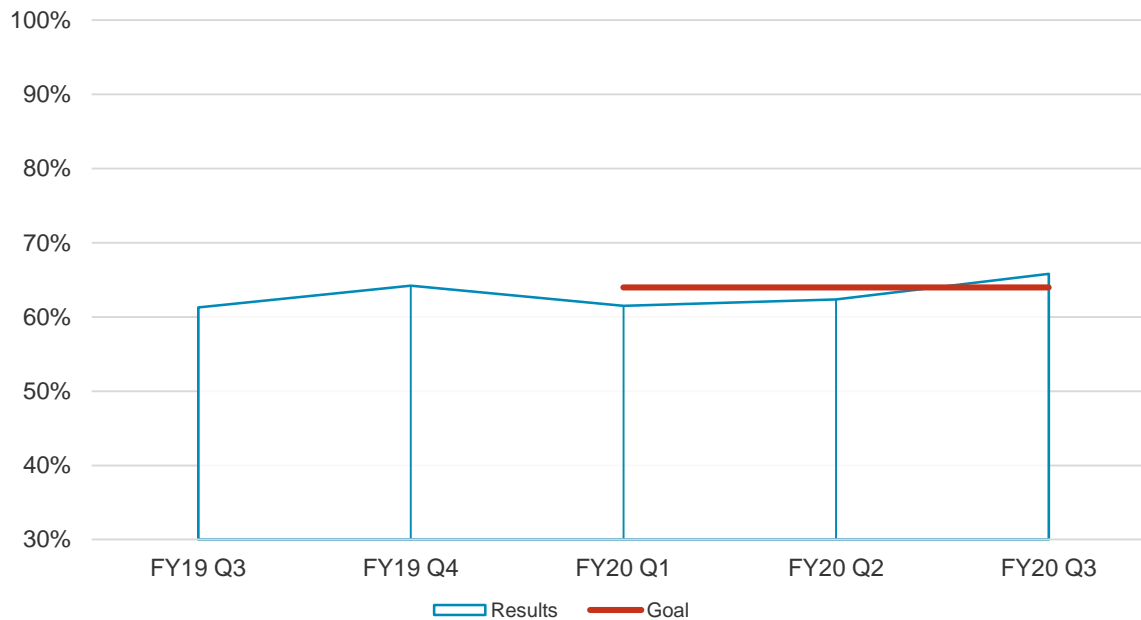
Composite Rating Based on Appearance of:

- **Landscaping Walkways, & Entry Plaza: 65.1% ↑** (Weighted 67%)
- **Parking Lot Cleanliness: 70.8%** (Weighted 33%)

↑ indicates a statistically significant increase from prior quarter

- Goal Met
- New bid added staff to A, L, R, and C Line Landscape Crews

Environment – Inside Stations



Goal:	64.0%
Actual:	65.8%
Met:	Yes

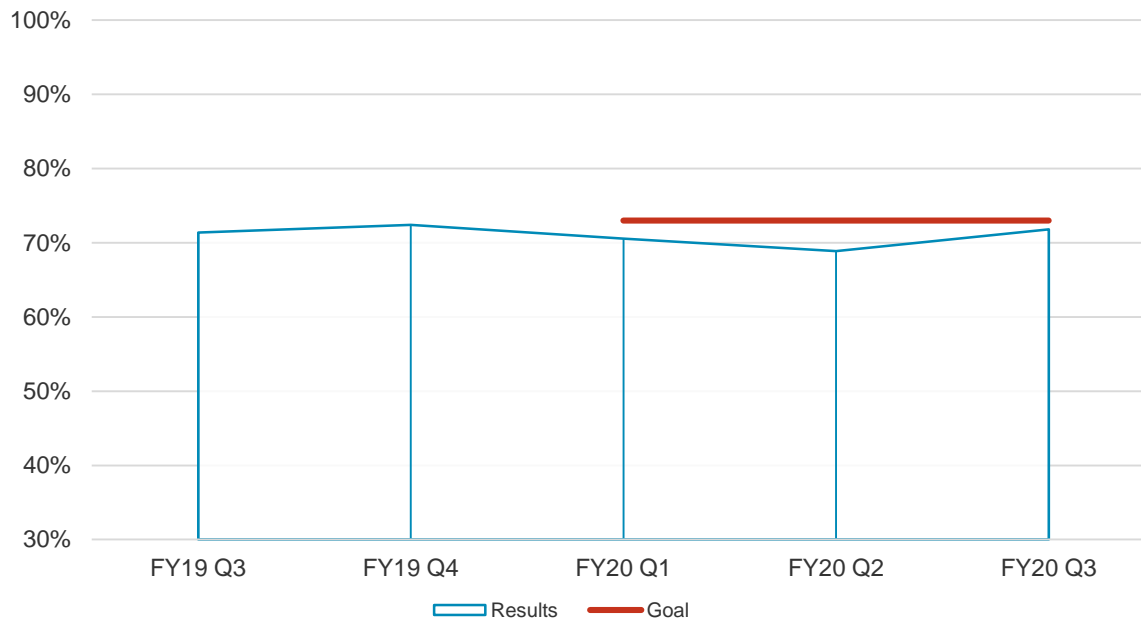
Composite Rating Based on Appearance of :

- **Platform: 71.0%**↑ (Weighted 40%)
- **Concourse: 65.9%**↑ (Weighted 25%)
- **Escalator: 70.2%**↑ (Weighted 10%)
- **Stairwells: 63.4%**↑ (Weighted 7.5%)
- **Elevator: 59.6%** ↑ (Weighted 10%)
- **Restroom: 42.7%**↑ (Weighted 7.5%)

↑ indicates a statistically significant increase from prior quarter

- Goal Met
- East Bay Graveyard crew now fully operational.

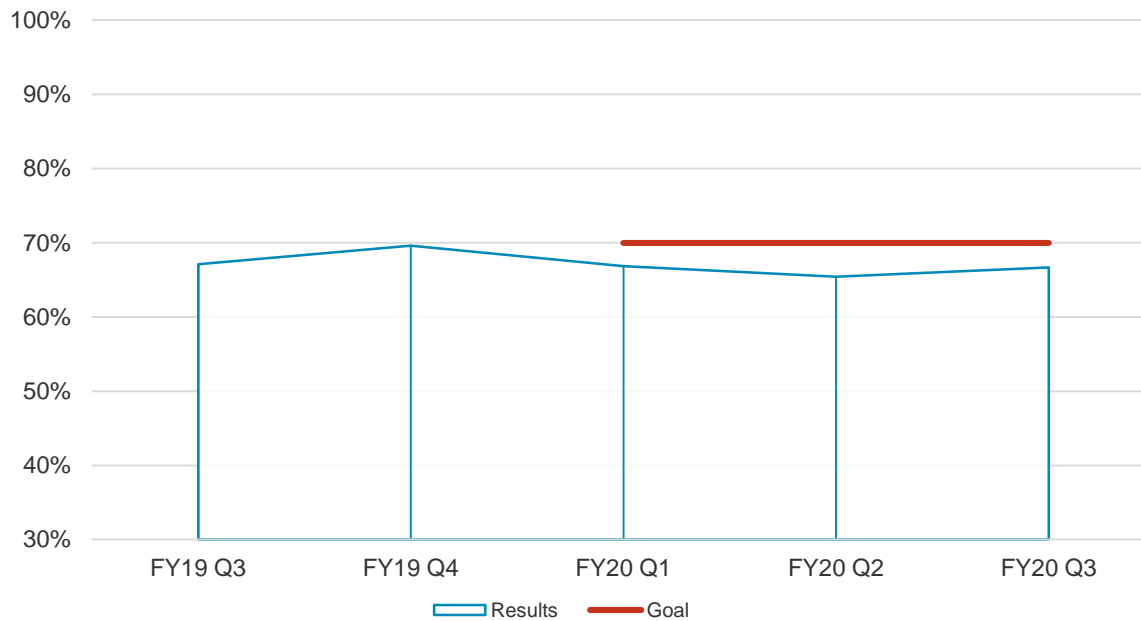
Station Vandalism



Goal:	73.0%
Actual:	71.8%
Met:	No

- Goal not met.
- BART forces focused on improvements

Train Interior Cleanliness



Goal:	70.0%
Actual:	66.7%
Met:	No

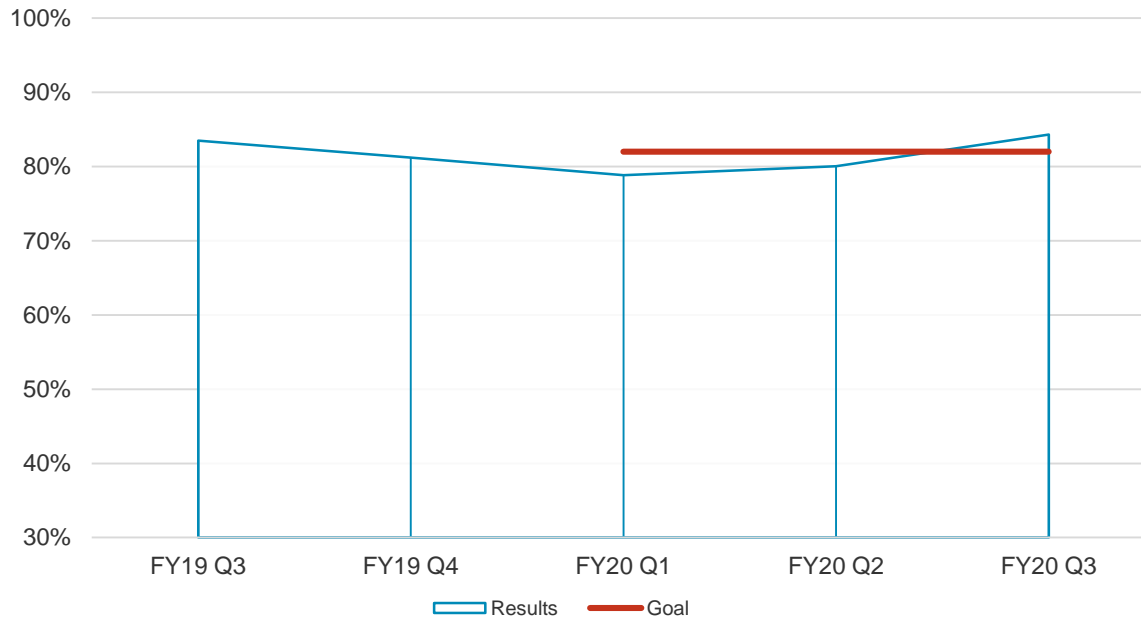
Composite Rating Based on Train Interior:

- **Cleanliness: 57.6%**↑ (Weighted 60%)
- **Kept Free of Graffiti: 83.5%** (Weighted 40%)

↑ indicates a statistically significant increase from prior quarter

- Electrostatically Spraying trains with EPA approved disinfectant every 3 to 4 days
- Disinfecting train cabs daily
- Disinfectant wiping of touch points at end of line stations

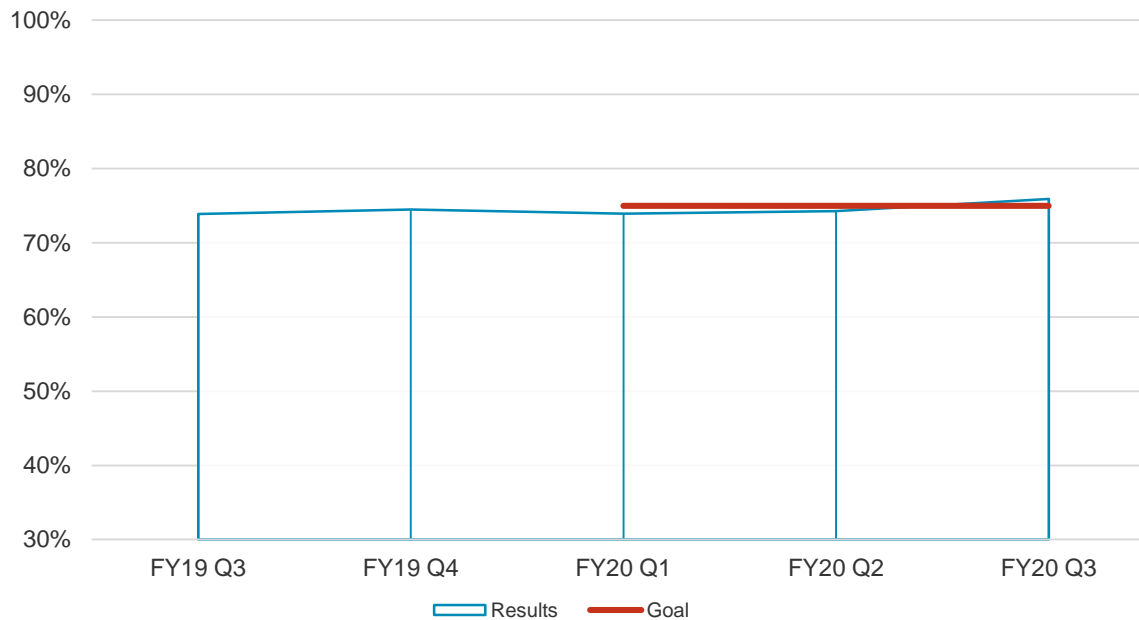
Train Temperature



Goal:	82.0%
Actual:	84.3%
Met:	Yes

- 2020 HVAC Pre-Season Checks
 - C cars – 76% completed
 - A2B2– 79% completed
 - A2B2’s HVAC motor starter upgrade – 78% completed

Customer Service

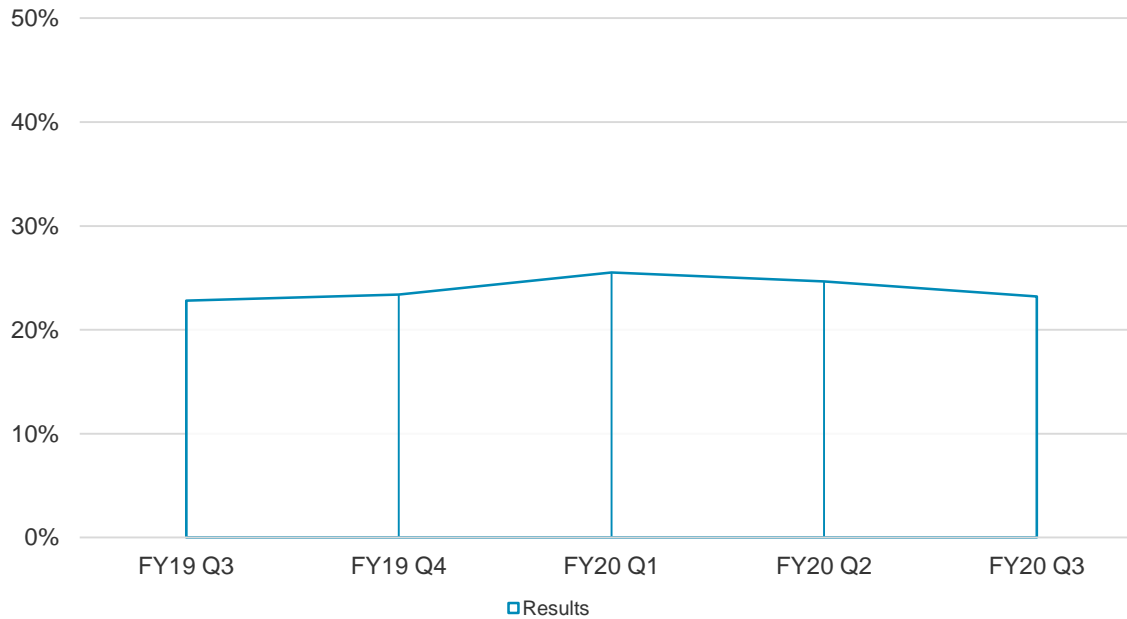


Goal:	75.00%
Actual:	75.90%
Met:	Yes
Average Rating of:	
<ul style="list-style-type: none"> Customer Service Station Agent (if used today): 74.2%↑ Onboard Next Stop, Destination and Transfer Announcements: 77.9% Onboard Delay Announcements (if delayed today): 75.6% 	
↑ indicates a statistically significant increase from prior quarter	

- Drop in Station Agent complaints:
 - Process improvements (Cambridge Systematics)
 - Skill Tune-Ups (ATU Management Collaborative effort)
 - Positive Reinforcement (Increase in commendations in the field)
 - Transportation reorganization created dedicated station management

Homelessness - Passenger Survey

“How well is BART addressing homelessness?”



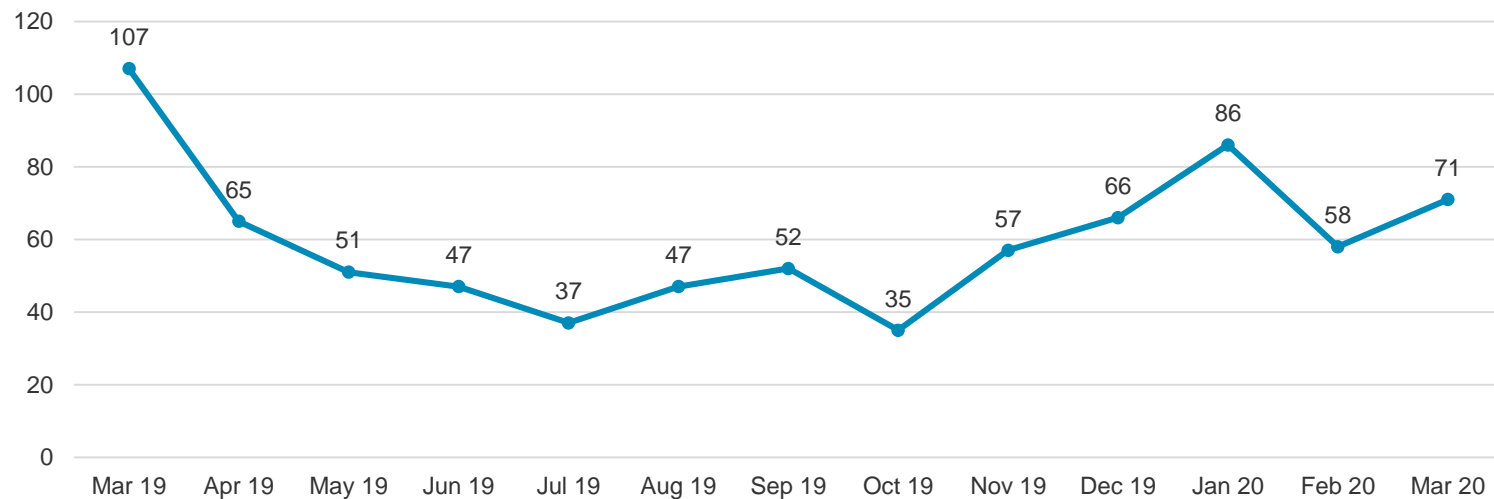
Goal:	N/A
Actual:	23.2%
Met:	N/A

- Customer perception about how well BART is addressing homeless are down 1.5%

Transient Counts in San Francisco Stations

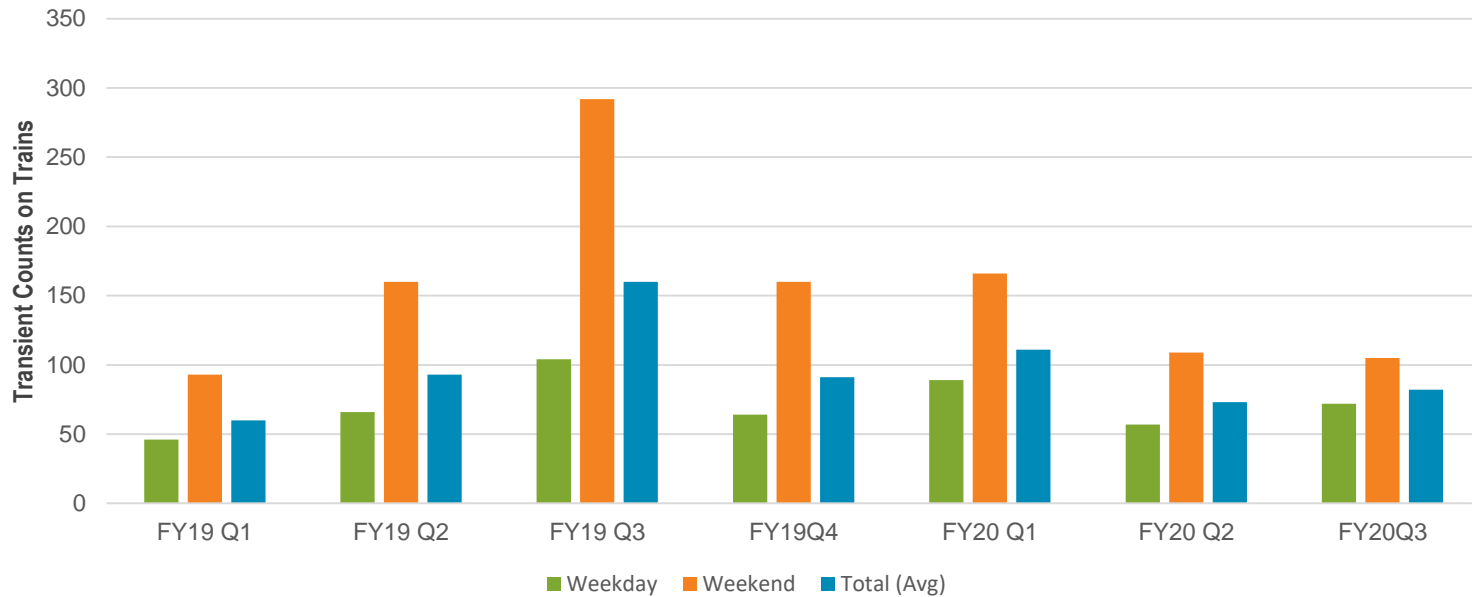


Downtown San Francisco Station Counts March 2019 - March 2020



- The graph represents the totals for three time periods (6:00am-8:00AM, 2:00pm-4:00pm and 8:00pm-10:00pm).
- Counts are conducted at the four downtown SF stations on the second Tuesday of each month
- The number fluctuated between 57 and 86 this winter, down about 30% from last winter

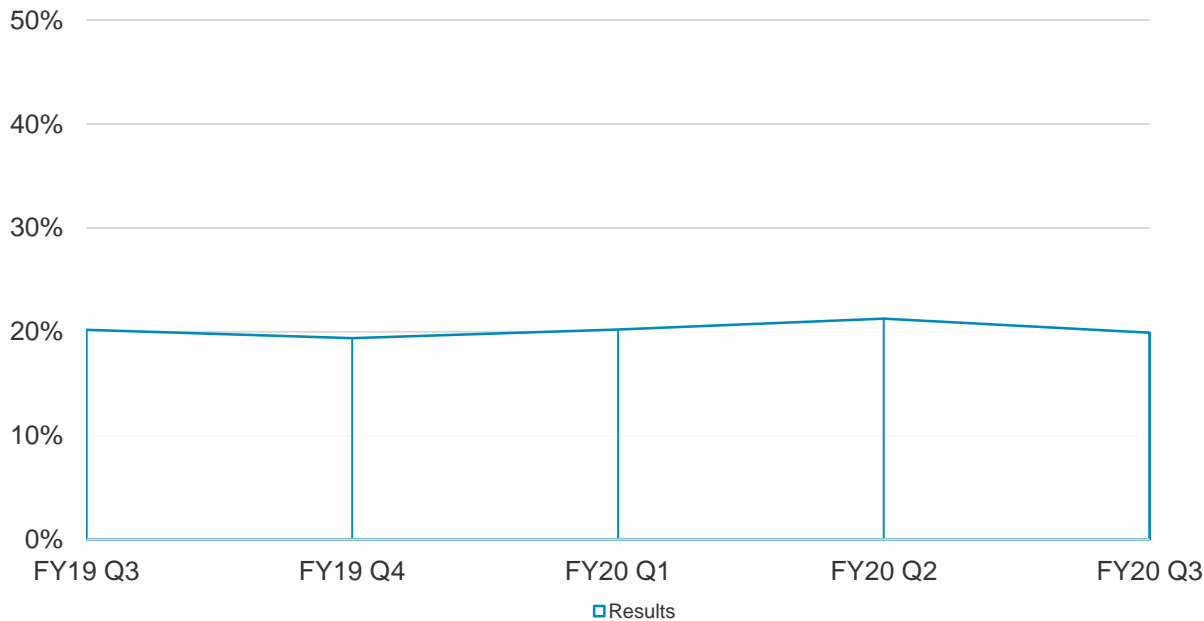
Transient Counts on Trains



- The number of transients on trains is up approximately 12% over last quarter
- Weekday morning numbers have dropped for two quarters in a row, likely due to the morning fare checking initiative

Fare Evasion Passenger Survey

“Did you see anyone not pay their fare at the station you entered?”

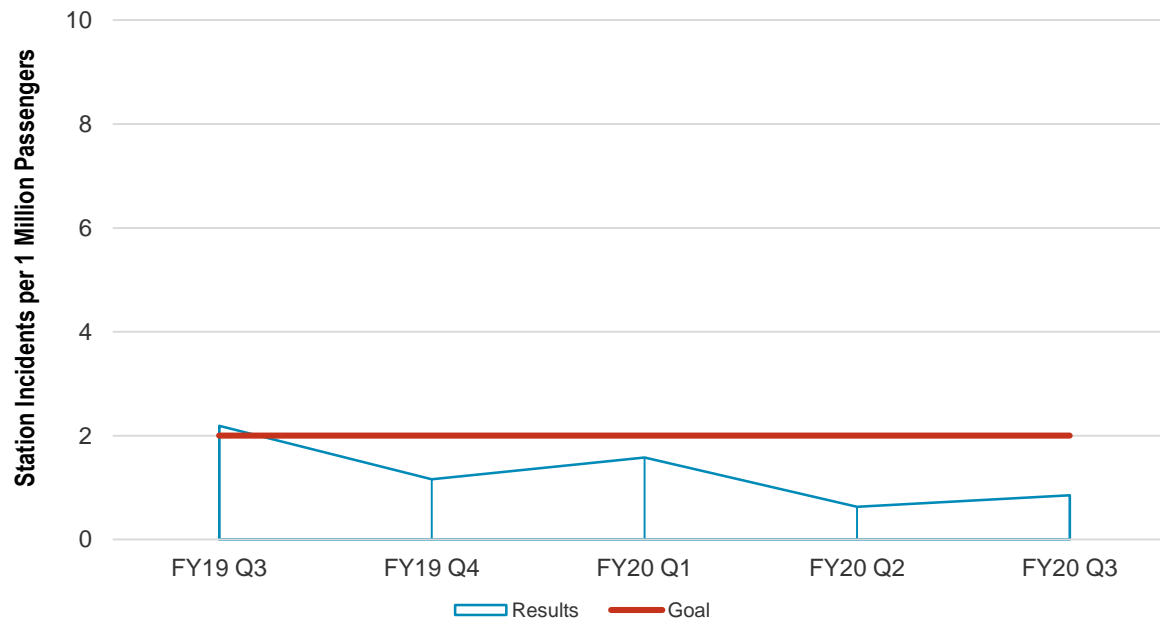


Goal:	N/A
Actual:	19.9%
Met:	N/A

- Down 1.4% over last quarter
- Station hardening completed at 22 stations; 5 additional stations to be completed by end of fiscal year
- FY21 ten stations scheduled (Ashby, North Berkeley, Dublin/ Pleasanton, Colma, South San Francisco, San Bruno, Millbrae, Walnut Creek, Pleasant Hill and Rockridge)
- FY22 six stations scheduled (North Concord, Lafayette, Orinda, Union City, Castro Valley, West Dublin)

Patron Safety – Station

Incidents per 1 Million Passengers

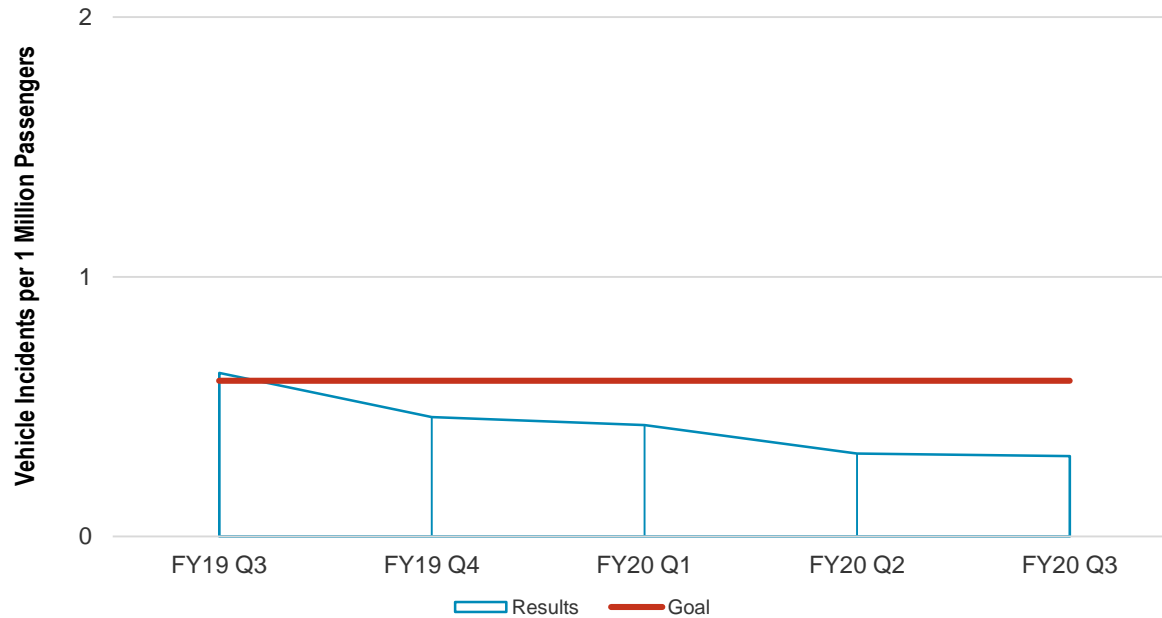


Goal:	2.00
Actual:	0.85
Met:	Yes

- Goal Met

Patron Safety – Vehicle

Incidents per 1 Million Passengers

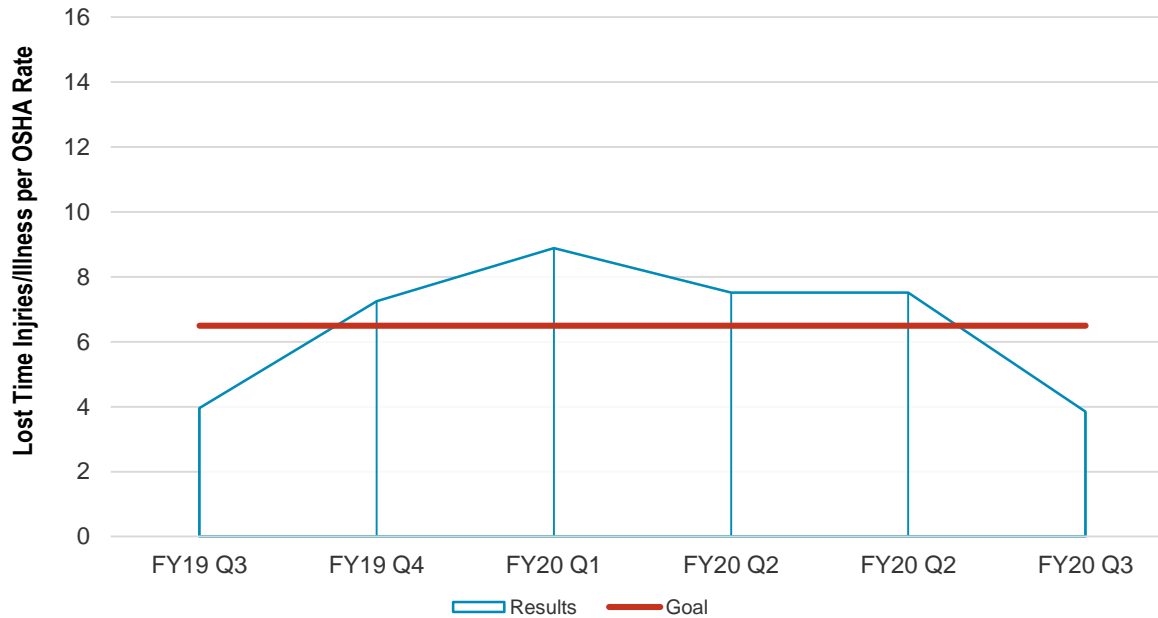


Goal:	0.60
Actual:	0.31
Met:	Yes

- Goal Met

Employee Safety – Lost Time

Lost Time Injuries per OSHA Rate

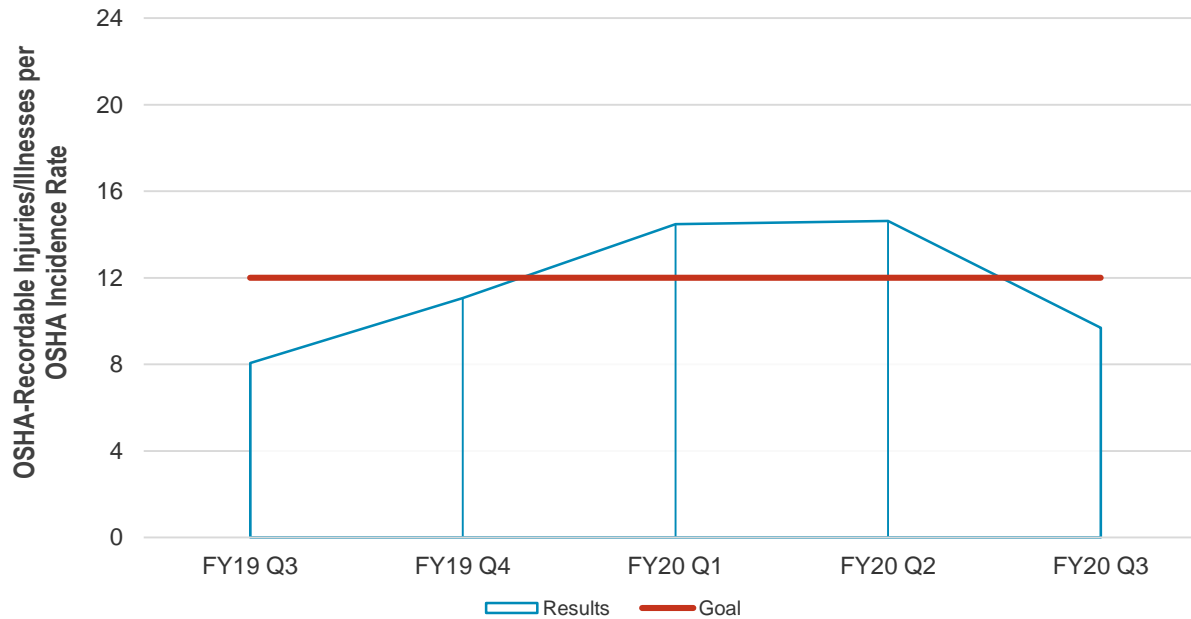


Goal:	6.50
Actual:	3.85
Met:	Yes

- Goal Met

Employee Safety – Injury Count

OSHA Recordable Injuries per OSHA Incidence Rate

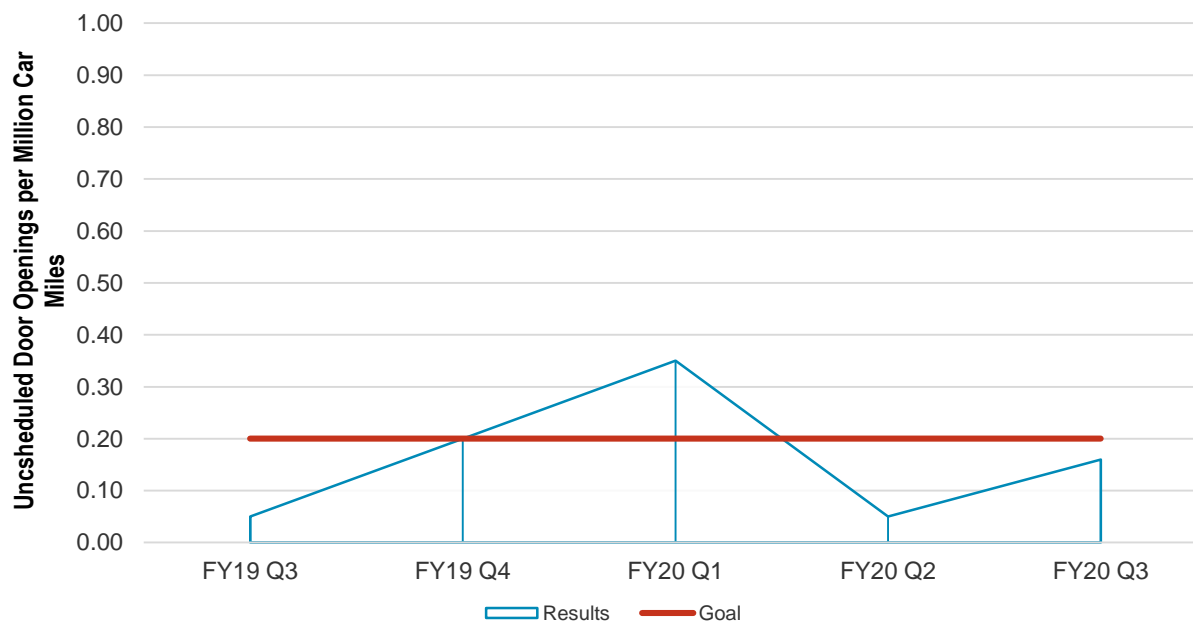


Goal:	12.00
Actual:	9.69
Met:	Yes

- Goal Met

Operating Safety – Door Openings

Unscheduled Door Openings per Million Car Miles

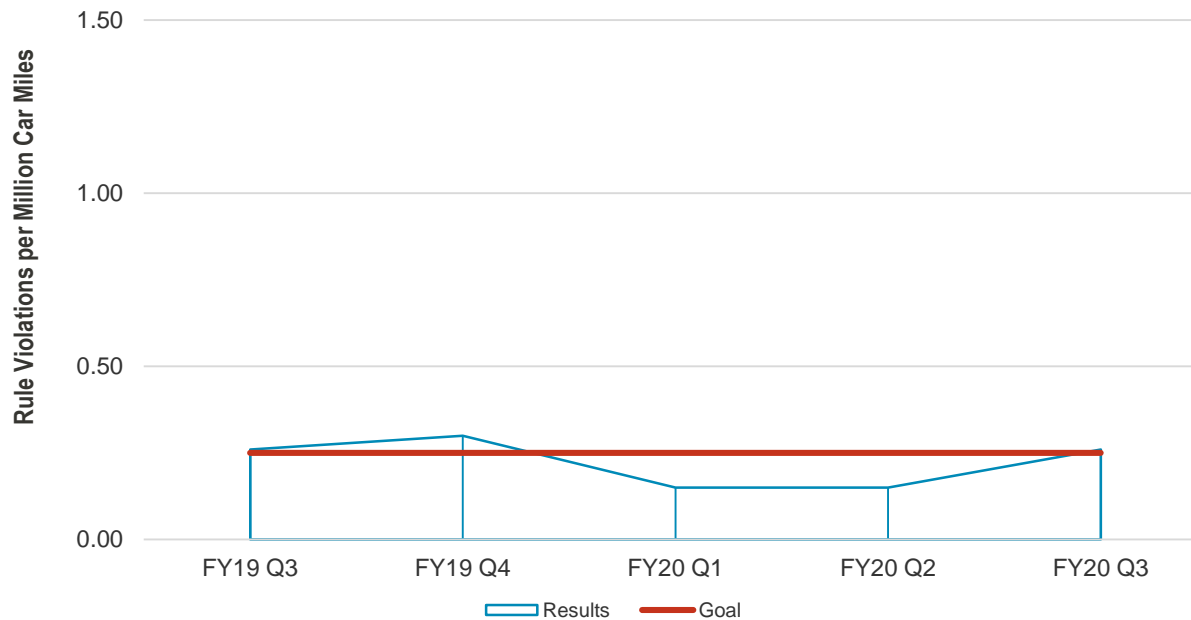


Goal:	0.200
Actual:	0.160
Met:	Yes

- Goal Met

Operating Safety – Rule Violations

Rule Violations per Million Car Miles

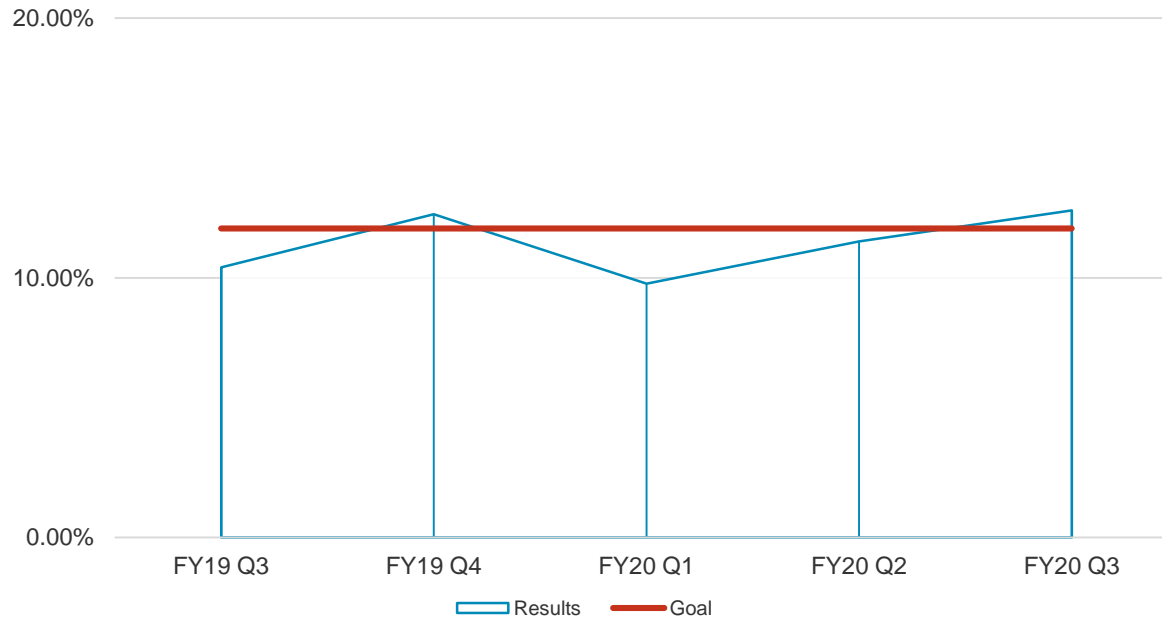


Goal:	0.250
Actual:	0.260
Met:	No

- Goal narrowly missed
- Slight increase in Transportation violations
- Corrective actions taken by Operations and tracked by System Safety
- Operations Safety Compliance Checks ongoing

BART Police Presence

“Did you see BART Police on the Train/Inside Station?”



Goal:	12.0%
Actual:	12.6%
Met:	Yes

Average Score of Police Seen For:

- All Time Periods
 - On Train 10.0% ↑
 - Outside the Station 15.2%
 - In the Station 10.2%

and

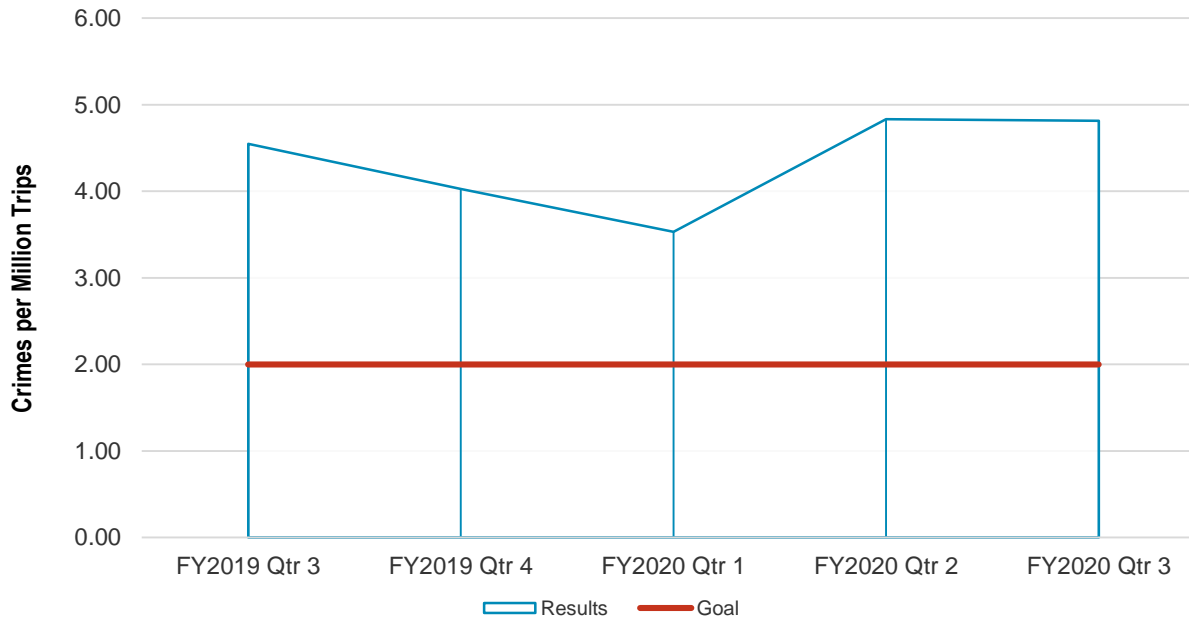
- After 7PM and Weekends
 - On Train 11.4% ↑
 - Outside the Station 17.4%
 - In the Station 11.4%

↑ indicates a statistically significant increase from prior quarter

- Increased visibility from previous quarter
- Continued priority to increase presence on trains
- +14 New Officers Sworn in January (7) and February (7)
- +10 New Community Service Officers added in January-March
- +4 Fare inspectors added January-March

Crimes Against Persons

Crimes per Million Trips

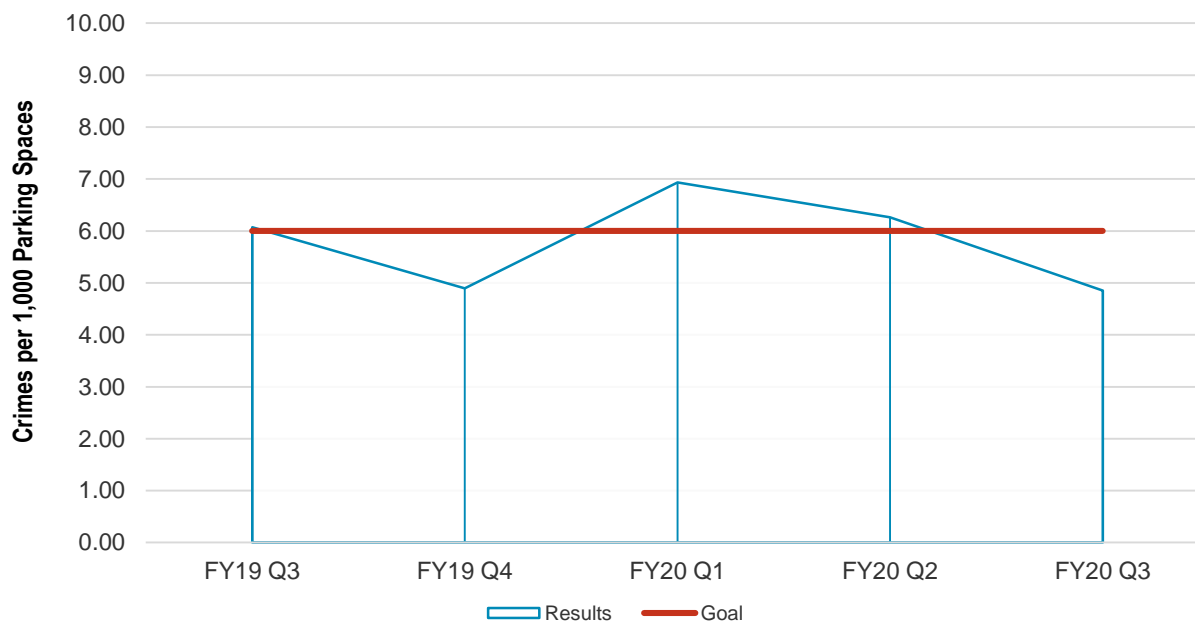


Goal:	2.00
Actual:	4.82
Met:	No
Violations Include:	
<ul style="list-style-type: none">▪ Homicide▪ Rape▪ Robbery▪ Aggravated Assault	

- No increase in reports of crimes against persons. Flat compared to last quarter
- A recently analysis found over 50% of violent crimes are currently attributed to robberies in the system targeting electronics
- Drop in 27 cases of robberies compared to previous quarter

Auto Burglary

Crimes per 1,000 Parking Spaces

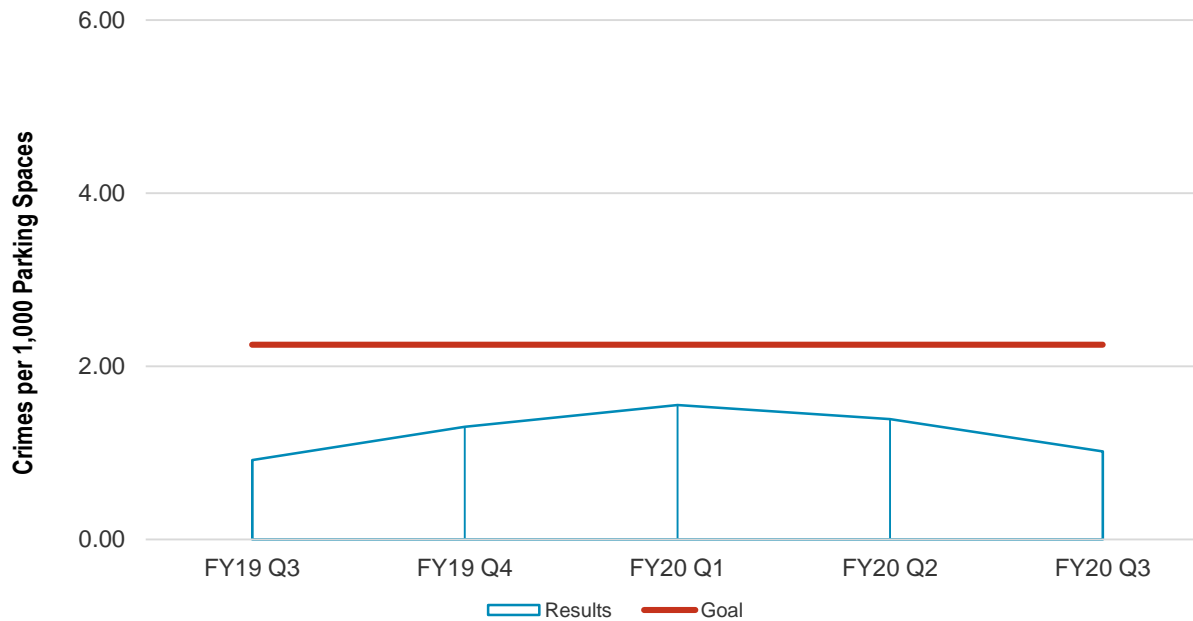


Goal:	6.00
Actual:	4.85
Met:	Yes
Violations Include:	
▪ Auto Burglary	

- Decline compared to last quarter
- Officers continue to patrol and monitor problematic stations
- Seeing a decrease especially in March, auto burglary numbers in all areas are cut to half the average or more
- Slight increase in reported cases of vehicle parts taken, such as catalytic converters, tire/wheels, etc.

Auto Theft

Crimes per 1,000 Parking Spaces

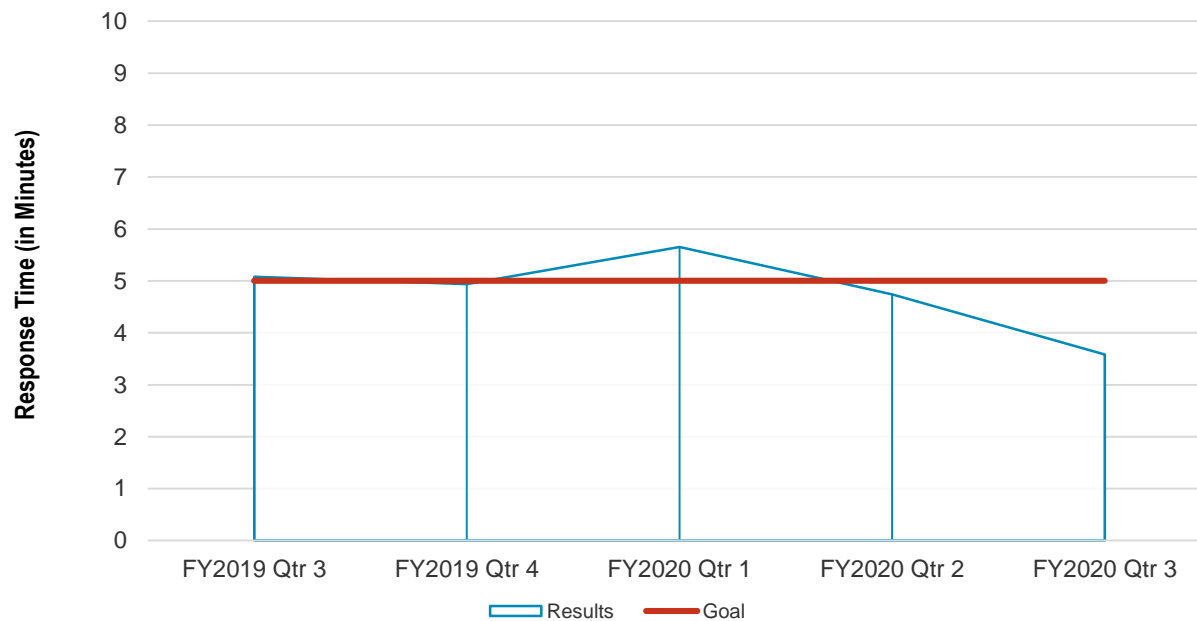


Goal:	2.25
Actual:	1.02
Met:	Yes
Violations Include:	
▪ Auto Theft	

- Goal was met at 1.02 thefts per 1,000 parking spaces
- Decrease of auto thefts reported systemwide. Consistent with auto theft reports in the bay area
- Expected to see continued decreases until recovery of ridership
- Preliminary information from outside agencies are seeing an increase to auto thefts during the pandemic

Average Emergency Response Time

Response Time (in Minutes)

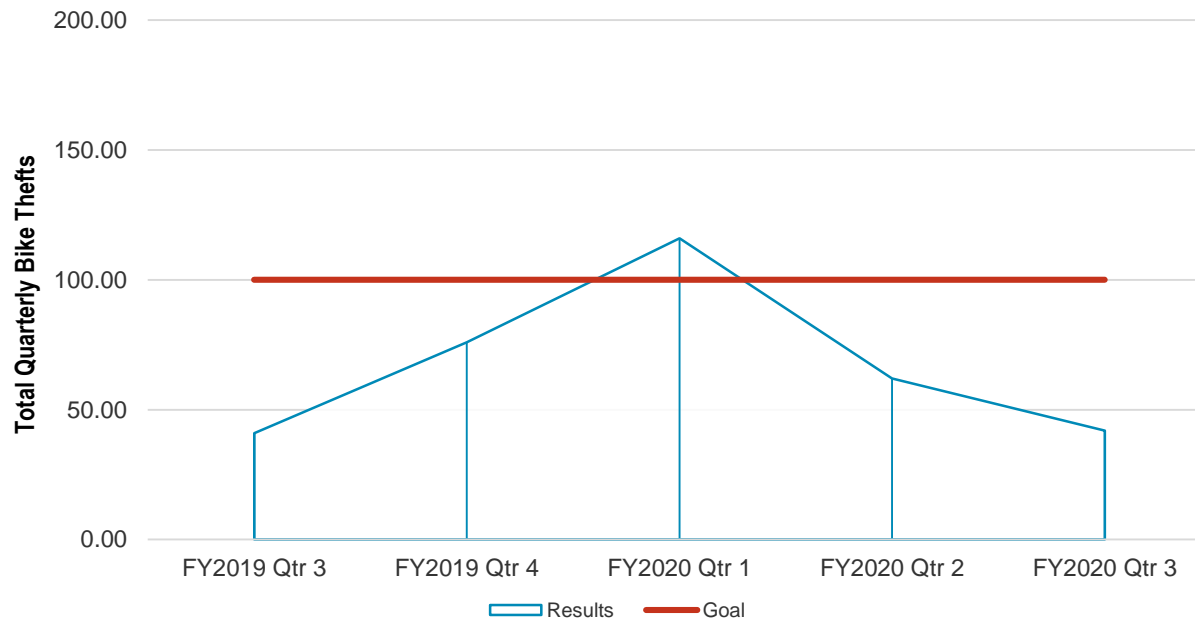


Goal:	5.00
Actual:	3.58
Met:	Yes

- Response time to emergency calls has improved with an average of 3.58 - 3 minutes and 34 seconds
- Record response time in San Francisco stations with 1 minute and 36 seconds during March
- Initial review of incidents post shelter-in-place suggests faster responding times systemwide

Bike Theft

Count of Bike Thefts



Goal:	100
Actual:	42
Met:	Yes
Violations Include:	
▪ Bicycle Thefts	

- A decrease in bike thefts continues for the second quarter in a row after a spike during 1st quarter of FY20
- Continued decreases expected, to match the trend with automobile thefts
- Closed entry/exits are expected to impact theft activity at certain stations