



Quarterly Service Performance Review 2nd Quarter, FY20

October – December, 2019

Engineering & Operations Committee

February 27, 2020

SUMMARY CHART 2ND QUARTER FY20

PERFORMANCE INDICATORS	SUMMARY CHART 2ND QUARTER FY20									
	CURRENT QUARTER				PRIOR QTR ACTUALS		YEAR TO DATE			
	ACTUAL	STANDARD	STATUS		LAST QUARTER	THIS QTR LAST YEAR	ACTUAL	STANDARD	STATUS	
Average Ridership - Weekday	403,426	403,184	MET		412,596	405,321	408,198	408,246	NOT MET	
Customers on Time										
Peak	90.28%	94.00%	NOT MET		89.91%	92.29%	90.10%	94.00%	NOT MET	
Daily	92.00%	94.00%	NOT MET		91.28%	93.28%	91.64%	94.00%	NOT MET	
Trains on Time										
Peak	84.52%	N/A	N/A		83.41%	89.04%	83.96%	N/A	N/A	
Daily	86.94%	91.00%	NOT MET		86.96%	90.09%	86.95%	91.0%	NOT MET	
Peak Period Transbay Car Throughput										
AM Peak	95.20%	97.50%	NOT MET		98.72%	91.10%	96.96%	97.50%	NOT MET	
PM Peak	93.72%	97.50%	NOT MET		97.86%	93.02%	95.79%	97.50%	NOT MET	
Car Availability at 4 AM (0400)	630	634	NOT MET		631	618	630	633	NOT MET	
Mean Time Between Service Delays	4,544	4,650	NOT MET		4,282	4,810	4,408	4,650	NOT MET	
Elevators in Service										
Station	98.37%	98.00%	MET		98.93%	99.23%	98.65%	98.00%	MET	
Garage	96.13%	97.00%	NOT MET		97.80%	97.83%	96.97%	97.00%	NOT MET	
Escalators in Service										
Street	92.53%	93.00%	NOT MET		95.07%	93.67%	93.80%	93.00%	MET	
Platform	96.77%	96.00%	MET		97.00%	97.53%	96.88%	96.00%	MET	
Automatic Fare Collection										
Gates	99.36%	99.00%	MET		99.29%	99.55%	99.32%	99.00%	MET	
Vendors	98.93%	95.00%	MET		98.86%	98.79%	98.90%	95.00%	MET	
Wayside Train Control System	1.56	1.00	NOT MET		1.13	0.66	1.35	1.00	NOT MET	
Computer Control System	0.03	0.08	MET		0.023	0.357	0.064	0.08	MET	
Traction Power	0.24	0.20	NOT MET		0.17	0.46	0.21	0.20	NOT MET	
Track	0.09	0.30	MET		0.05	0.07	0.07	0.30	MET	
Transportation	0.46	0.50	MET		0.56	0.54	0.51	0.50	NOT MET	
Environment Outside Stations	64.0%	65.5%	NOT MET		64.9%	65.3%	64.4%	66.0%	NOT MET	
Environment Inside Stations	62.4%	64.0%	NOT MET		61.5%	63.8%	61.9%	64.0%	NOT MET	
Station Vandalism	68.9%	73.0%	NOT MET		70.6%	73.8%	69.7%	73.0%	NOT MET	
Train Interior Cleanliness	65.4%	70.0%	NOT MET		66.8%	68.3%	66.1%	70.0%	NOT MET	
Train Temperature	80.0%	82.0%	NOT MET		78.8%	80.9%	79.4%	82.0%	NOT MET	
Customer Service	74.3%	75.0%	NOT MET		73.9%	74.9%	74.1%	75.0%	NOT MET	
Homelessness	24.7%	N/A	N/A		25.5%	23.4%	25.1%	N/A	N/A	
Fare Evasion	21.3%	N/A	N/A		20.2%	17.0%	20.8%	N/A	N/A	
Customer Complaints										
Complaints per 100,000 Passenger Trips	11.82	5.07	NOT MET		13.19	10.31	12.51	5.07	NOT MET	
Safety										
Station Incidents/Million Patrons	0.63	2.00	MET		1.58	1.28	1.11	2.00	MET	
Vehicle Incidents/Million Patrons	0.32	0.60	MET		0.43	0.31	0.38	0.60	MET	
Lost Time Injuries/Illnesses/Per OSHA	7.52	6.50	NOT MET		8.89	6.84	8.21	6.50	NOT MET	
OSHA-Recordable Injuries/Illnesses/Per OSHA	14.63	12.00	NOT MET		14.49	12.99	14.56	12.00	NOT MET	
Unscheduled Door Openings/Million Car Miles	0.050	0.200	MET		0.350	0.050	0.200	0.200	MET	
Rule Violations Summary/Million Car Miles	0.150	0.250	MET		0.150	0.150	0.150	0.250	MET	
Police										
BART Police Presence	11.4%	11.9%	NOT MET		9.8%	11.0%	10.6%	12.0%	NOT MET	
Quality of Life per million riders	65.64	N/A	N/A		69.40	46.17	67.52	N/A	N/A	
Crimes Against Persons per million riders	4.83	2.00	NOT MET		3.53	5.02	4.18	2.00	NOT MET	
Auto Burglaries per 1,000 parking spaces	6.26	6.00	NOT MET		6.94	4.79	6.60	6.00	NOT MET	
Auto Thefts per 1,000 parking spaces	1.39	2.25	MET		1.56	1.39	1.47	2.25	MET	
Police Response Time per Emergency Incident (Minutes)	4.74	5.00	MET		5.65	5.15	5.20	5.00	NOT MET	
Bike Thefts (Quarterly Total and YTD Quarterly Average)	62	100.00	MET		116	57	89	100.00	MET	

LEGEND:

Goal Met

Goal Unmet by < 5%

Goal Unmet by > 5%

FY20 Second Quarter Overview



- **Average Weekday Ridership** continued to flatten this quarter with a 2% decrease over last quarter and 0.5% decrease compared to the same quarter last year
- **Train on time performance** during the peak was up slightly while all day performance was down slightly
- **ROW Equipment Reliability:** Computer Systems and Track met goal. Rail Cars, Traction Power, and Train Control did not meet goal
- **Station Equipment Availability:** Elevators (Station), Escalators (Platform), Ticket Machines and Fare Gates met goal. Elevators (Garage), Escalators (Street) did not meet goal
- **Passenger Environment:** Environment Inside Stations, Customer Service, Train Temperature, Police Presence, and Homeless improved. Vandalism, Grounds, Train Cleanliness, Fare Evasion decreased
- **Total Customer Complaints** decreased slightly over last quarter

eBART Service Report



PERFORMANCE INDICATORS	eBART SERVICE REPORT FOR 2nd QUARTER FY20						FY17 YEAR TO DATE		
	Final	CURRENT QUARTER			PRIOR QTR ACTUALS		ACTUAL	STANDARD	STATUS
		ACTUAL	STANDARD	STATUS	LAST QUARTER	THIS QTR LAST YEAR			
Ridership									
Average Ridership - Weekday	8,173	6,530	MET	8,348	7,768	8,261	6,530	MET	
Average Ridership - Weekend	2,063	N/A	N/A	2,222	2,260	2,142	N/A	N/A	
Service Delivery									
On-Time Performance	93.59%	95.00%	NOT MET	93.01%	94.28%	93.30%	95.00%	NOT MET	
Transfers to BART									
On-Time Connections	97.56%	98.50%	NOT MET	98.80%	98.32%	98.18%	98.50%	NOT MET	
Equipment									
Train Mean Distance Between Failures (miles)	36,838	14,000	MET	9,352	12,741	14,849	14,000	MET	
Station Elevator Availability	99.96%	98.50%	MET	99.17%	99.25%	99.57%	98.50%	MET	
Station Escalator Availability	99.27%	96.00%	MET	99.06%	97.52%	99.16%	96.00%	MET	
Customer Feedback									
Complaints/Hundred Thousand Patrons	0.69	7.00	MET	7.55	14.13	4.17	7.00	MET	
Safety									
Passenger Incidents	0.00	0.00	MET	0.00	3.00	0.00	0.00	MET	
Workplace Injuries	1.00	0.00	NOT MET	0.00	1.00	1.00	0.00	NOT MET	

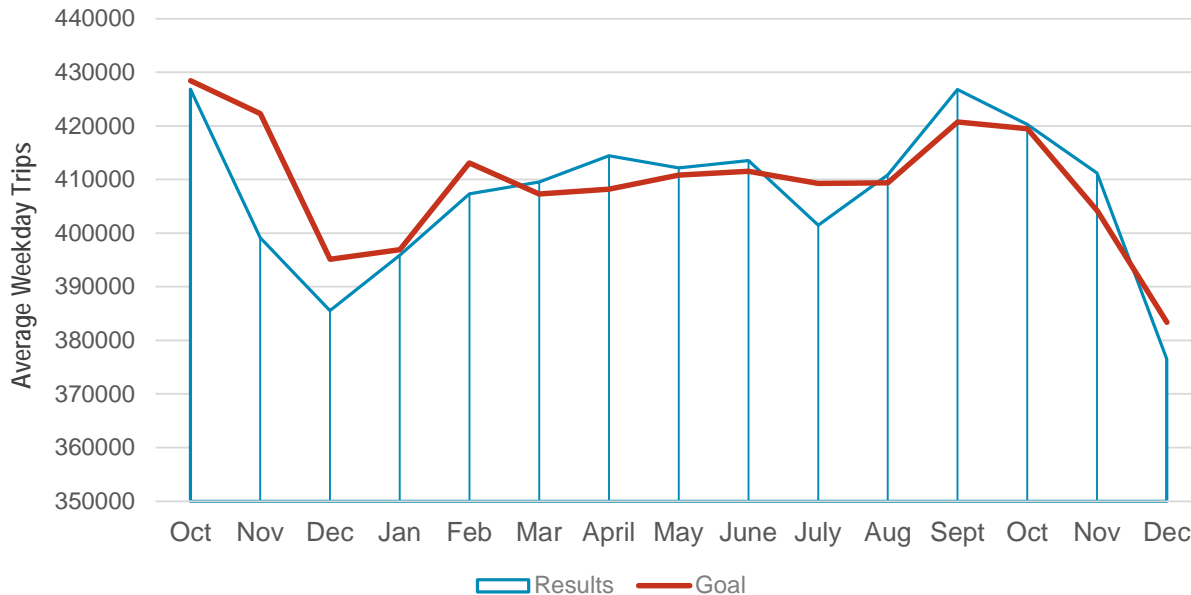
LEGEND

Goal Met

Goal Unmet by < 5%

Goal Unmet by >5%

Customer Ridership - Weekday Trips

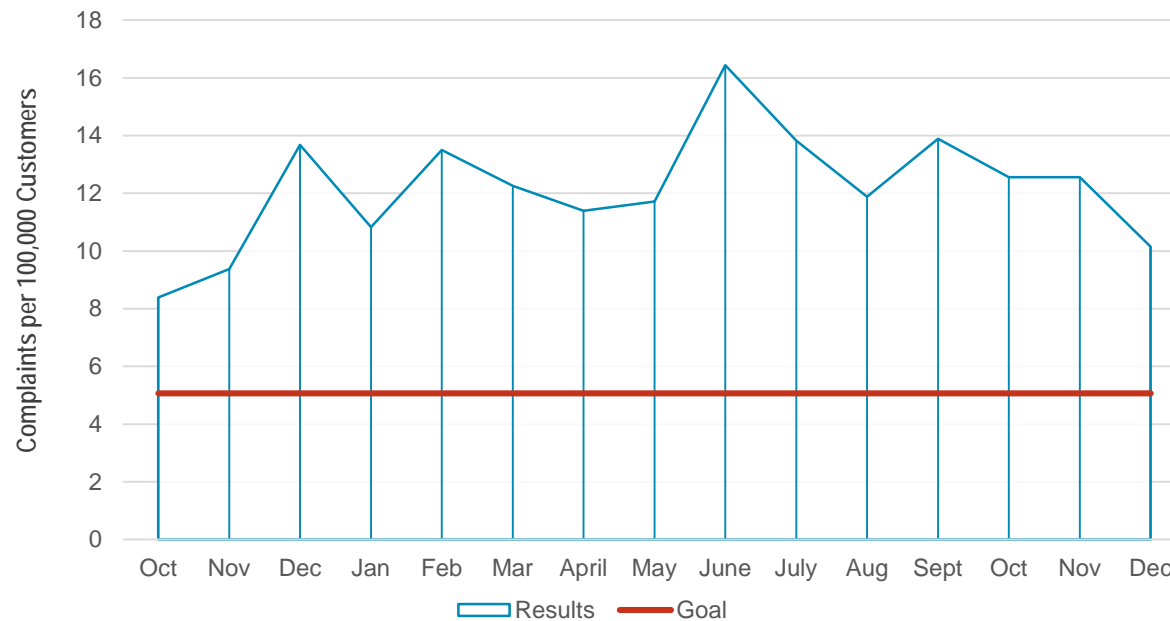


Goal:	403,184
Actual:	403,426
Met:	Yes

This quarter compared to same quarter last year

- Total ridership decreased by 1.2%
- Average weekday ridership down by 0.5%
- SFO Extension weekday ridership down by 1.2%
- Average peak ridership down by 1.3%
- Saturday and Sunday down by 4.8% and 10.0%, respectively

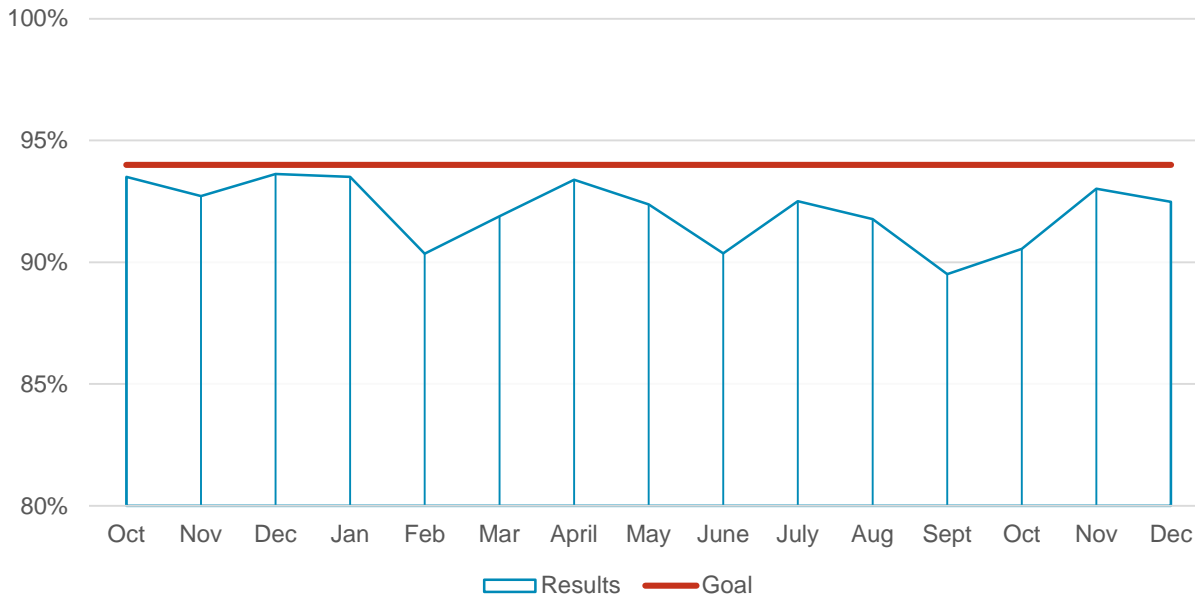
Customer Complaints



Goal:	5.07
Actual:	11.82
Met:	No

- Total complaints down by 15.7% from last quarter
- Increased Complaints: Apps, Bike Program, Police Services, Policies, Quality of Life, and Train Cleanliness
- Decreased Complaints: AFC, Announcements, Biohazard, M&E, Parking, Passenger Information, Personnel, Service, Station Cleanliness, and Trains
- Compliments down 15% from last quarter

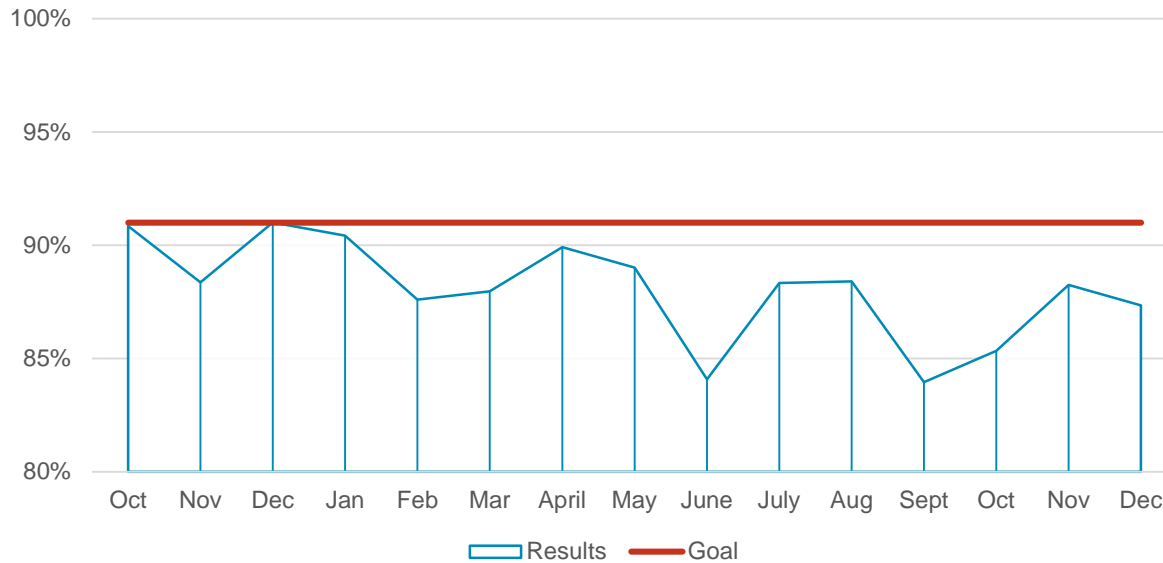
On-Time Service - Customer



Goal:	94.00%
Actual:	92.00%
Met:	No
Delay Source	% of Trains
POLICE ACTIONS	21.2%
TRAIN CONTROL	15.4%
VEHICLE	14.9%
VANDALISM	6.7%
PERSON ON TRACKWAY	5.4%
TRANSPORTATION	4.5%
PATRON ILL	4.3%
CONGESTION	2.8%
TRACTION POWER	2.3%
OBJECT ON TRACKWAY	2.1%

- 0.79% improvement
- Overall 37% of delays were due to people, the largest contributor continues to be police activity at 21%
- Equipment accounted for 33% of delays. Equipment failures with train control and rail cars each contributing about 15%

On-Time Service - Train

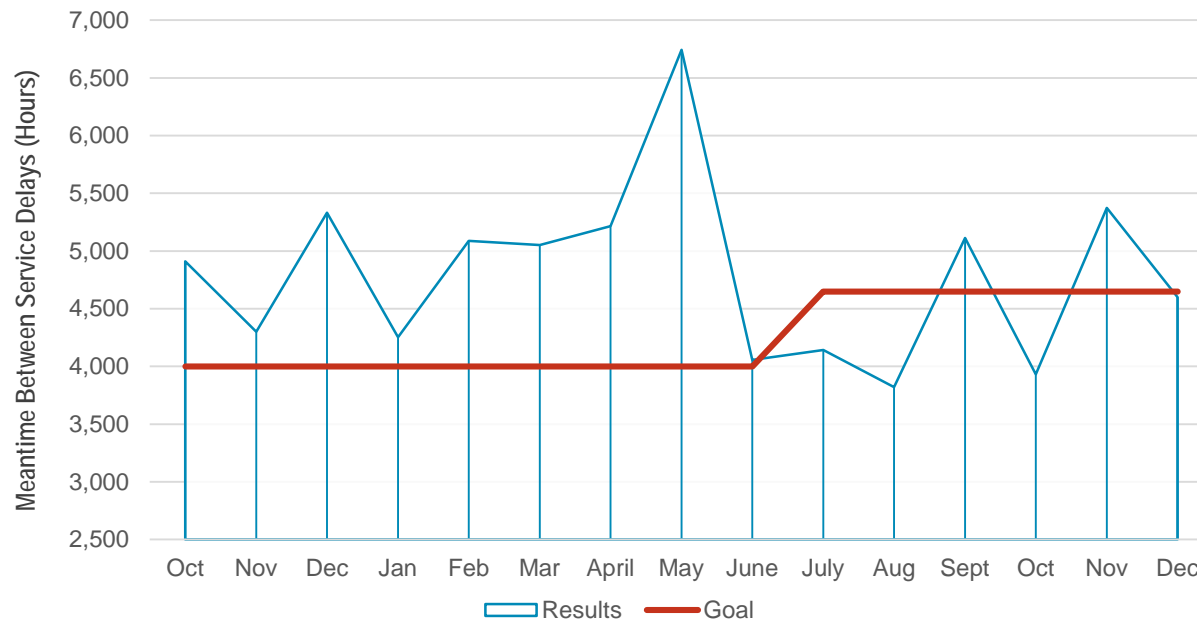


Goal:	91.00%
Actual:	86.94%
Met:	No

#	Date	Location	Description	Time	Cause	Trains
1	12/11/19	D.C. I-Lock	False Occupancy (Track Circuit M90A04)	0714-2054	Equip	135
2	10/31/19	T-Bay Tube	Water Intrusion/Pump Lost Power/Drain Clogged (Resulted In F.O. Conditions)	1138-2021	Equip	116
3	12/12/19	W.C. I-Lk-No.	False Occupancy (Crank Installed)	1039-2530	Equip	101
4	11/19/19	S. Hayward	BPD Hold (Homicide On Train)	1259-1735	People	99
5	10/09/19	Civic Center	BPD Hold (Unstable Patron)	1655-1947	People	74
6	10/22/19	Embarcadero	MUX (False Occupancy)	0539-1101	Equip	72
7	11/05/19	Embarcadero	Vehicle Inverter	1615-1920	Vehicle	70
8	10/22/19	W. Oak. I-Lk	Smoke On Vent Structure	1643-1846	Environment	65
9	11/22/19	Montgomery	False Occupancy (Manual Operation Req.)	1715-2219	Equip	65
10	10/09/19	Berkeley	Person On Trackway (Person In Fan Room/BPD Negotiating)	0900-1313	People	64

Car Equipment – Reliability

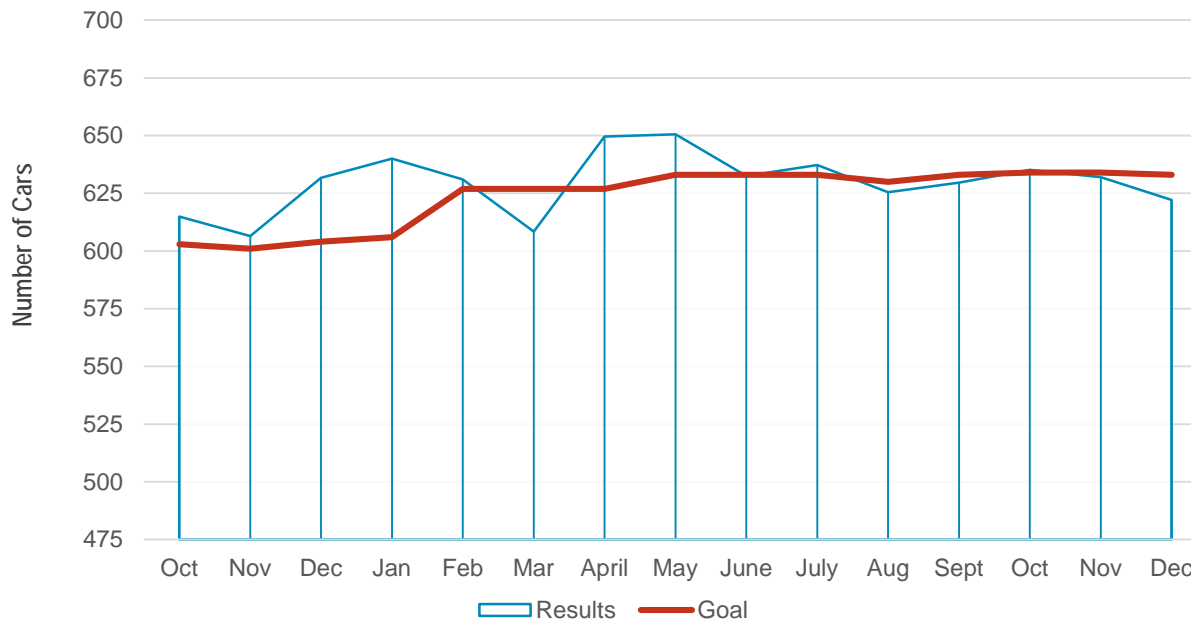
Meantime Between Service Delays



Goal:	4,650 Hours
Actual:	4,544 Hours
Met:	No

- Car Reliability improved 12% over last quarter; Legacy Fleet reliability exceeded goal at 5,308
- FOTF cars experienced increased wheel flats and VATC failures

Car Equipment Availability

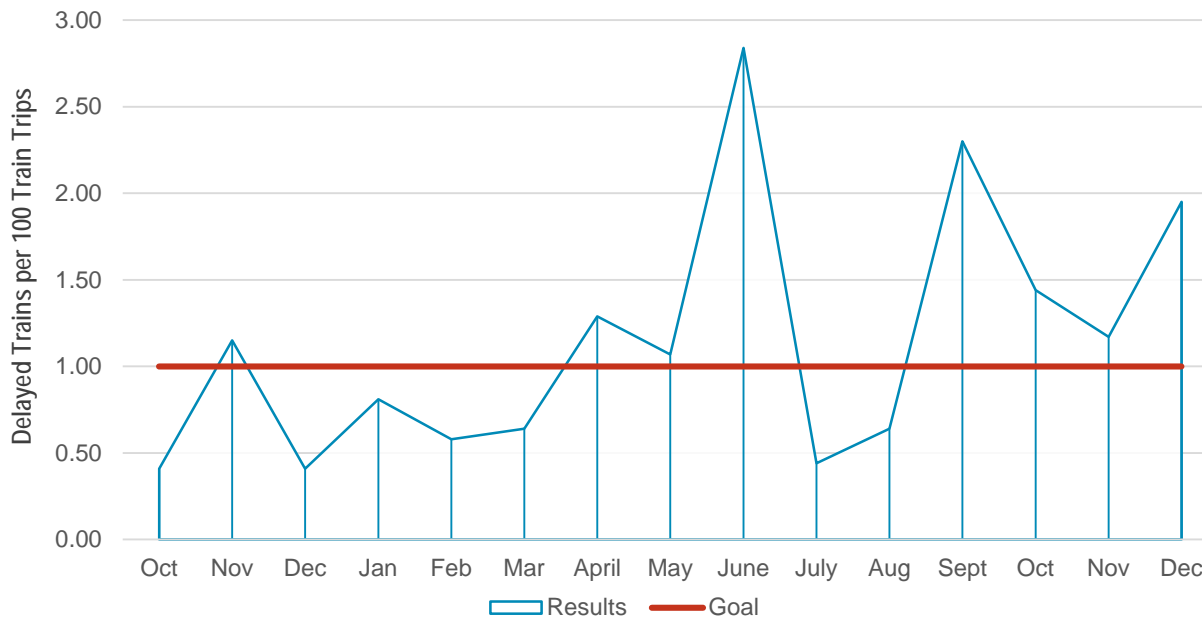


Goal:	634
Actual:	630
Met:	No

- Car availability was slightly below goal
- Primary contributor was wheel flats on the FOTF

Wayside Train Control System

Delayed Trains per 100 Train Trips

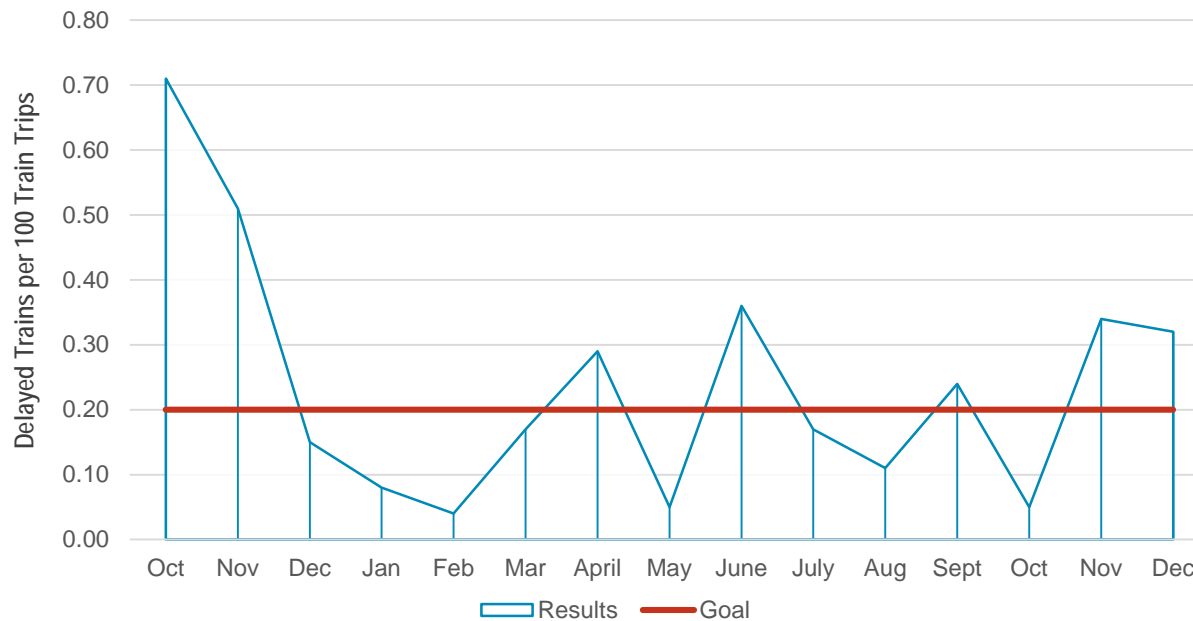


Goal:	1.00
Actual:	1.56
Met:	No

- Four of the top ten delays incidents this quarter
- Modifying wayside mux boxes on the San Francisco line
- Addressing signaling issues at problem stations to reduce manual door operations

Traction Power

Delayed Trains per 100 Train Trips

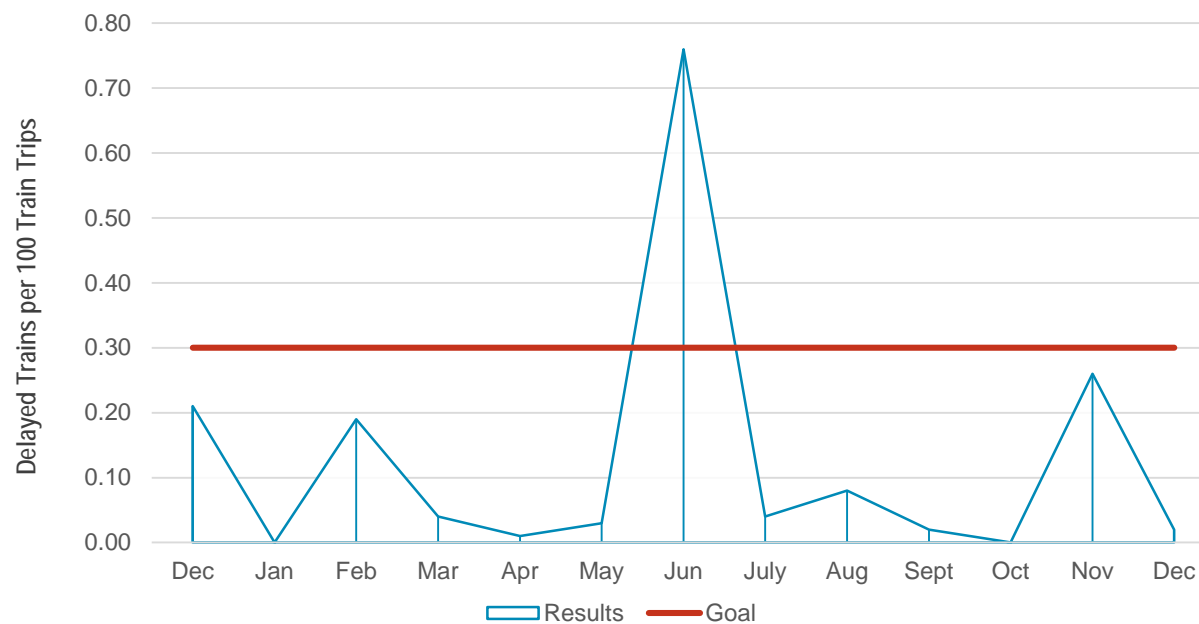


Goal:	0.20
Actual:	0.24
Met:	No

- Flashed insulator outside of Embarcadero Station. Project to replace all third rail insulators in downtown San Francisco 25% complete
- Coverboard failure on Dublin line. Coverboard renewal project for L line in progress
- Separation of steel cap from third rail outside MacArthur Station. Systemwide third rail replacement project in progress. K line to be complete by April 2020

Track

Delayed Trains per 100 Train Trips

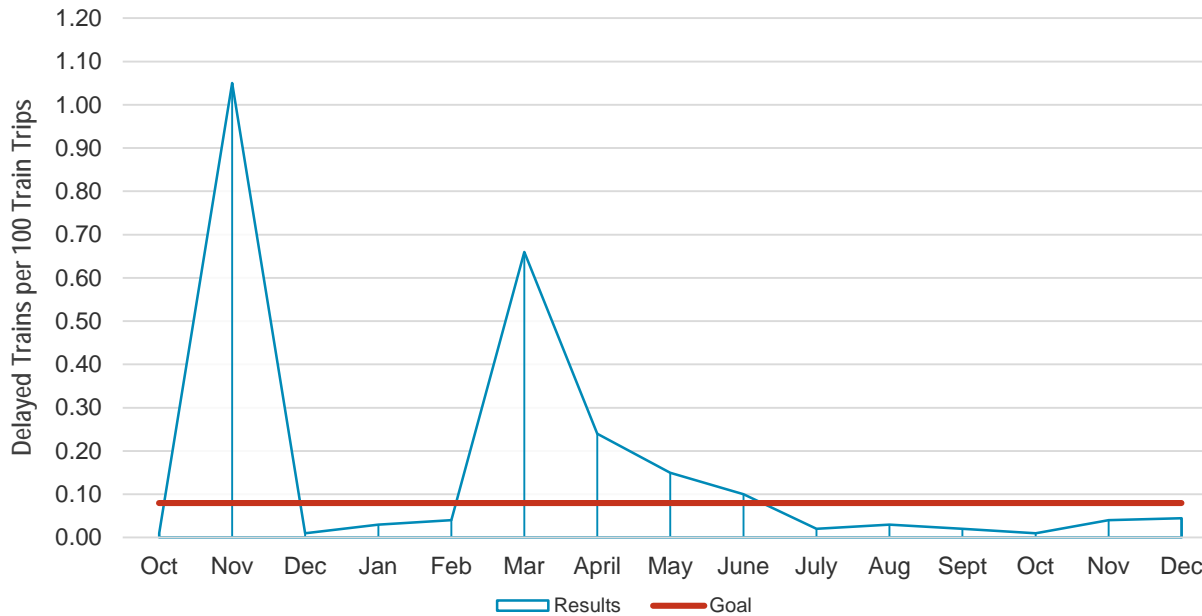


Goal:	.30
Actual:	.09
Met:	Yes

- On target to meet annual rail replacement goal
- Currently exceeding goal on rail pad replacement

Computer Control System

Delayed Trains per 100 Train Trips

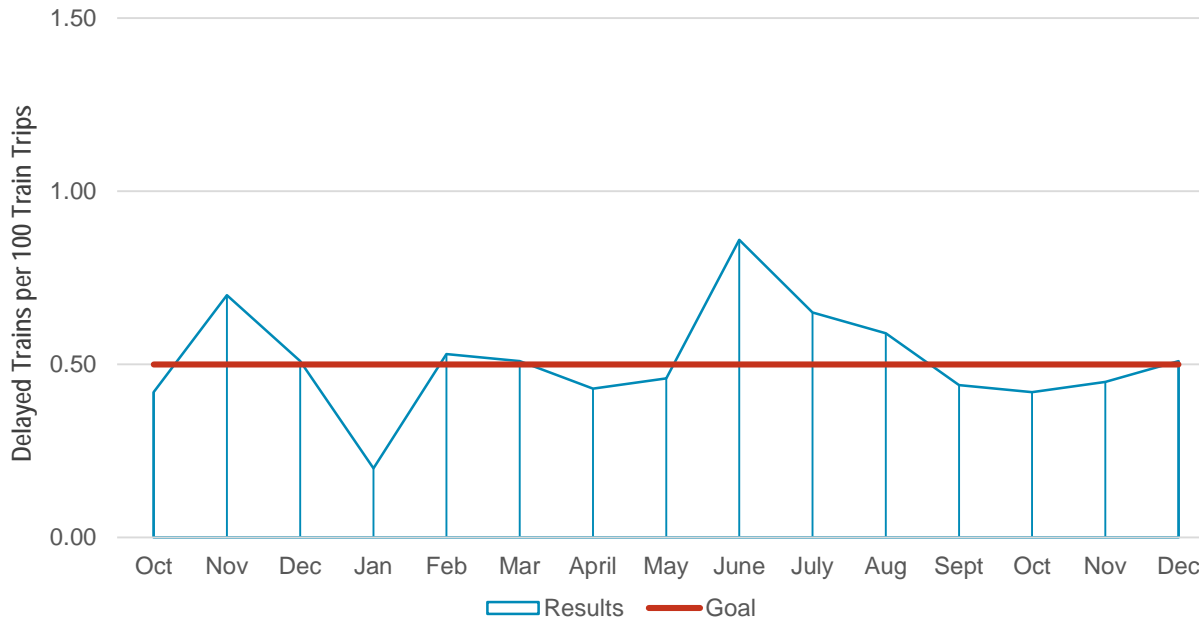


Goal:	.08
Actual:	.03
Met:	Yes

- Graphic upgrade in OCC completed

Transportation

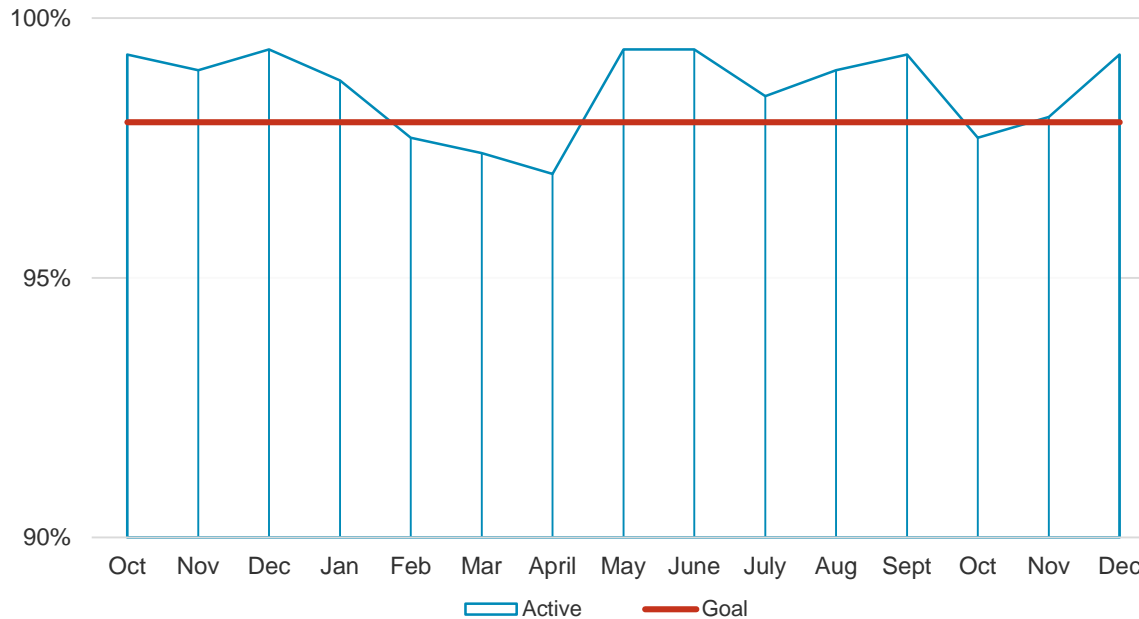
Delayed Trains per 100 Train Trips



Goal:	0.50
Actual:	0.46
Met:	Yes

- Reduction in Transportation procedural errors
- Large reduction in delays due to Staffing Shortages

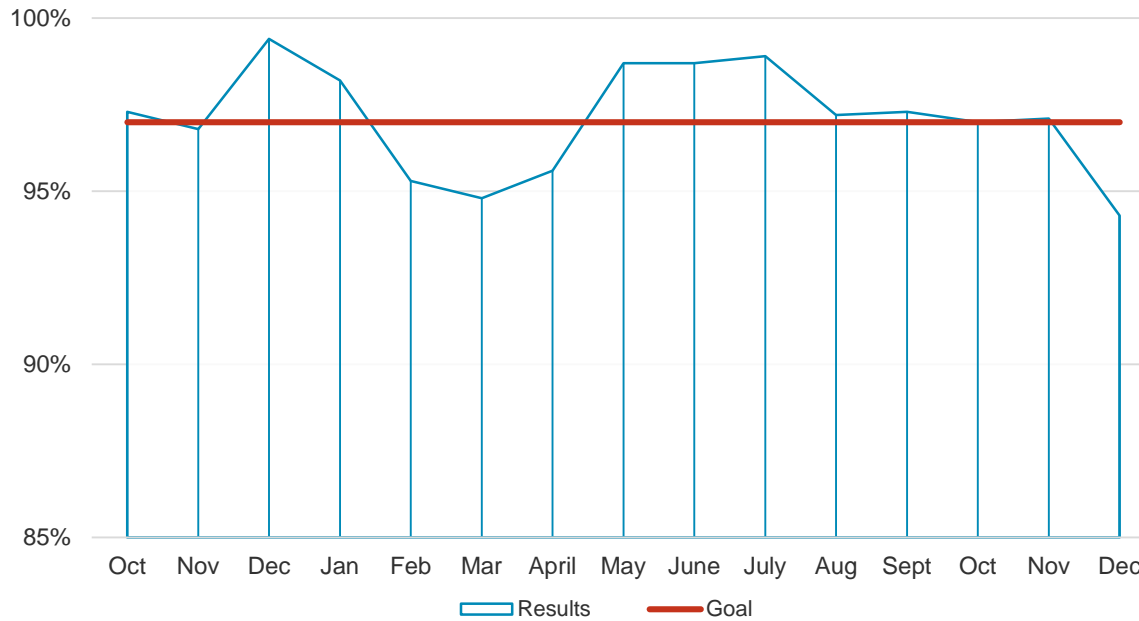
Elevator Availability - Stations



Goal:	98.00%
Actual:	98.40%
Met:	Yes

- Warm Springs Street Elevator was out of service for 206 hours due to an unplanned hydraulic valve replacement
- Civic Center Station Elevator was out of service for 102 hours due to a planned rope replacement
- Civic Center planned rope replacement performed on weekends to minimize the impact to riders

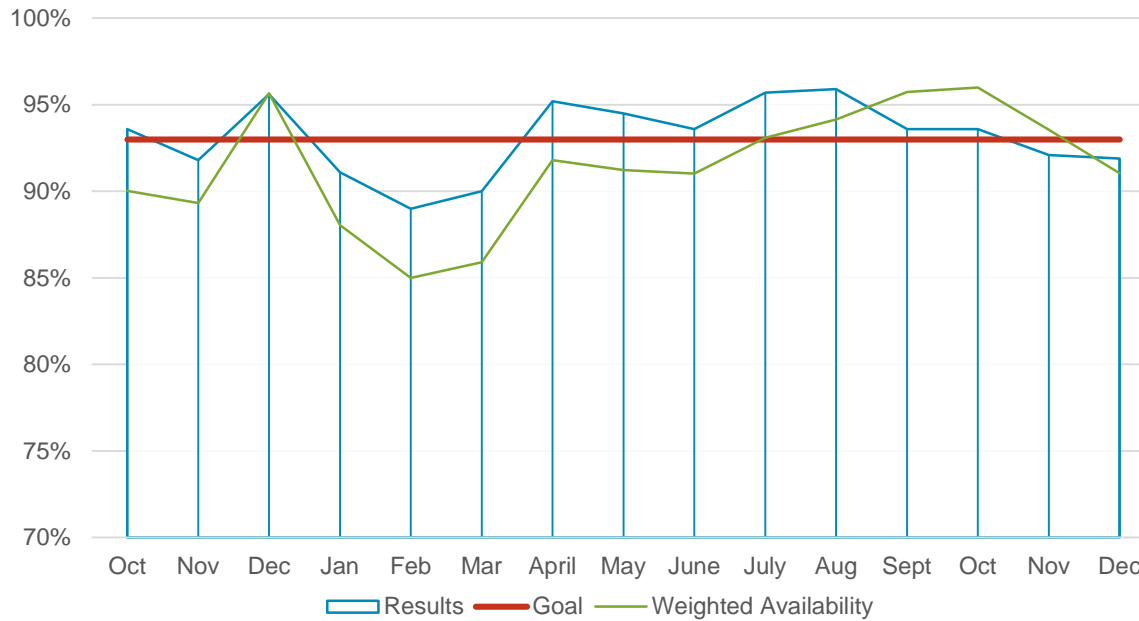
Elevator Availability - Garage



Goal:	97.00%
Actual:	96.13%
Met:	No

- Campaign to install shut off timers uncovered programming errors in two elevators
 - Colma Garage Elevator – Out of Service for 413 Hours
 - Richmond Garage Elevator – Out of Service for 222 Hours

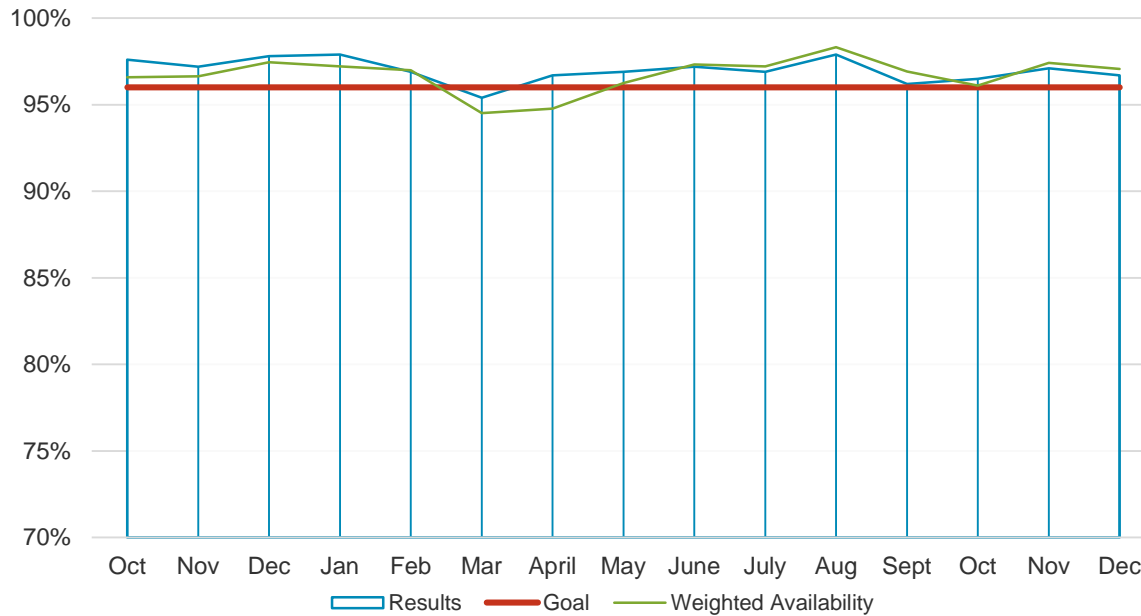
Escalator Availability - Street



Goal:	93.00%
Actual:	92.53%
Met:	No

- Powell – Street Escalator (S2) required major unplanned repairs, resulting in 1,400 hours out of service for step chain replacement
- Rockridge - Street Escalator (S1) required unplanned repairs resulting in 276 hours out of service for step crash/tracks repairs

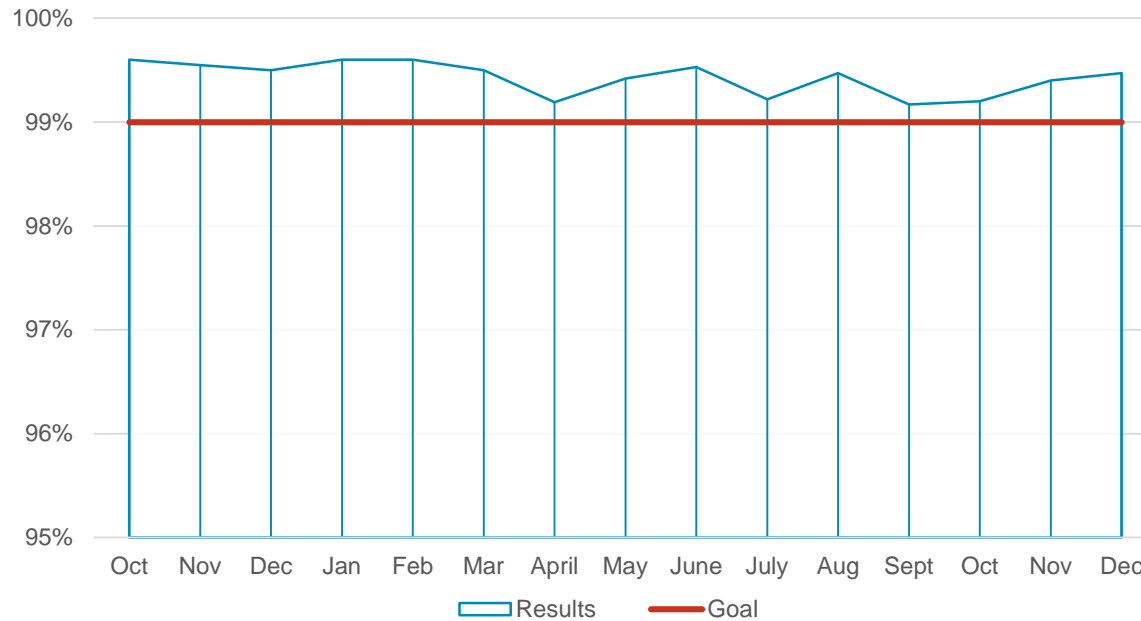
Escalator Availability - Platform



Goal:	96.00%
Actual:	96.77%
Met:	Yes

- South San Francisco Platform Escalator required unplanned major repairs, resulting in 1,932 hours out of service for step chain/bull gear replacement and alignment issues, target completion on track for 02/28/2020

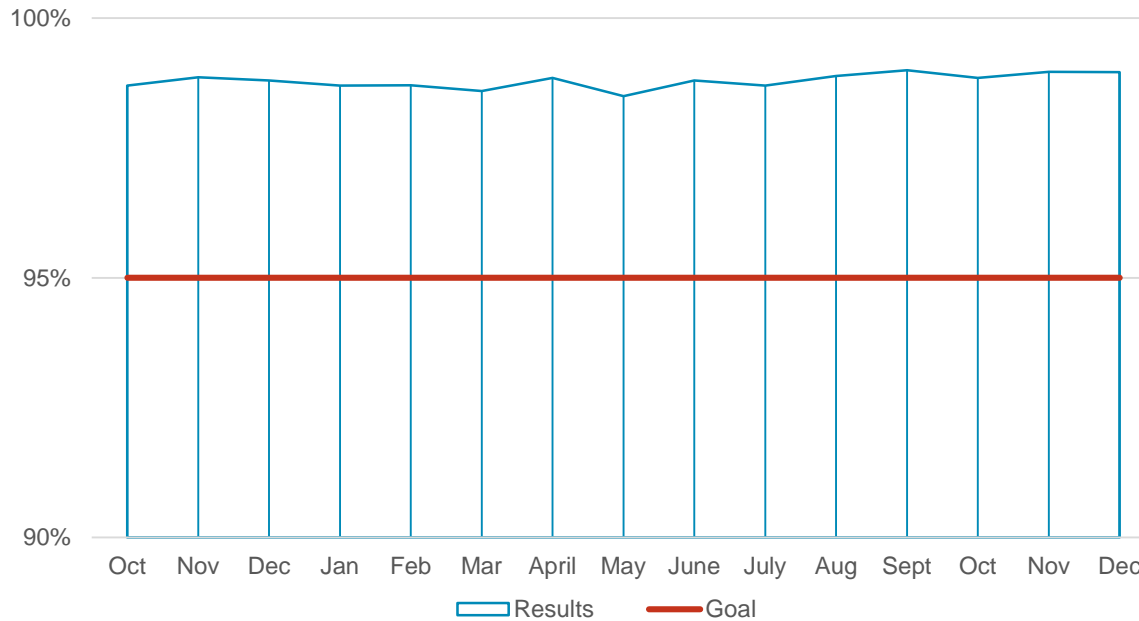
AFC Gate Availability



Goal:	99.00%
Actual:	99.36%
Met:	Yes

- Continuing Cinch Mod – 27 of 48 stations done; M&K – lines complete, A line in progress
- Developing test swing fare gate for installation in Richmond

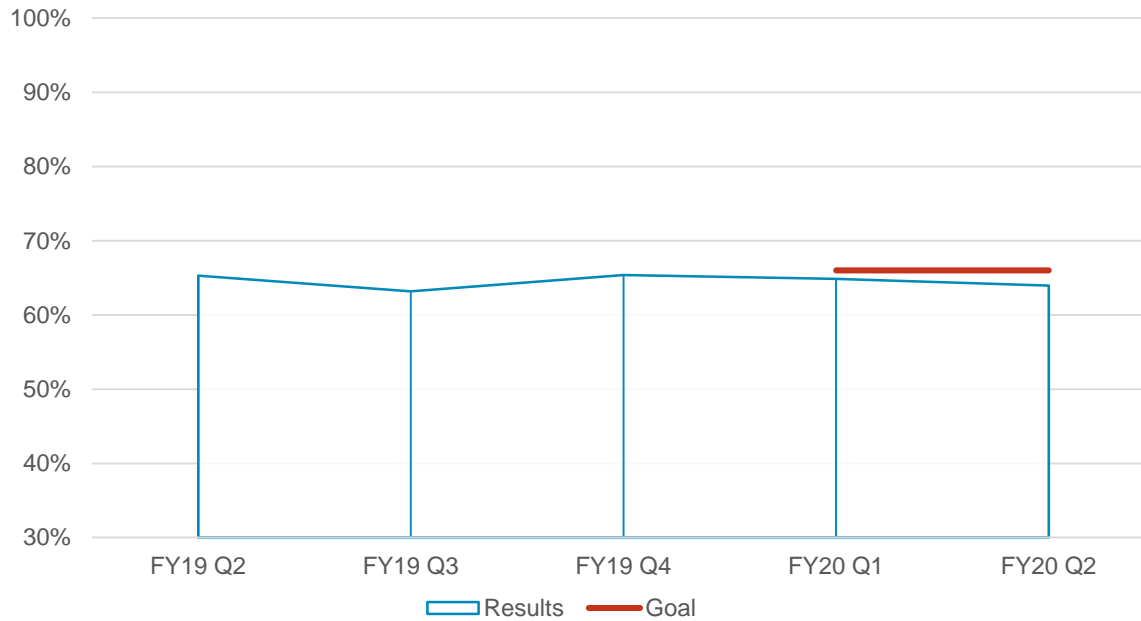
AFC Vendor Availability



Goal:	95.00%
Actual:	98.93%
Met:	Yes

- Relocating Clipper load machines into paid area – 35 stations completed
- Remaining 13 stations will be coordinated with rollout of the parking app

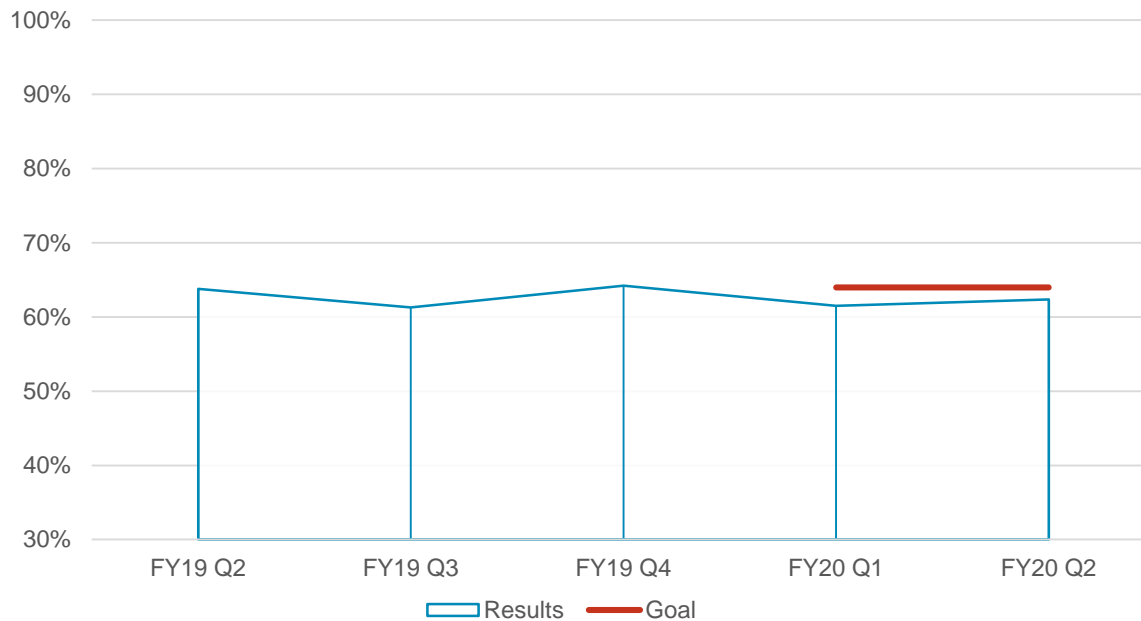
Environment – Outside Stations



Goal:	65.5%
Actual:	64.0%
Met:	No
Composite Rating Includes:	
Appearance of:	
<ul style="list-style-type: none"> ▪ BART Landscaping Walkways, & Entry Plaza (67%) ▪ BART Parking Lot Cleanliness (33%) 	

- Grounds spent 67% more resources than last quarter on homeless cleaning
- Recently procured two garbage trucks for debris removal at homeless encampments
- Increased incidents of hole in right of way fencing requiring grounds workers to respond

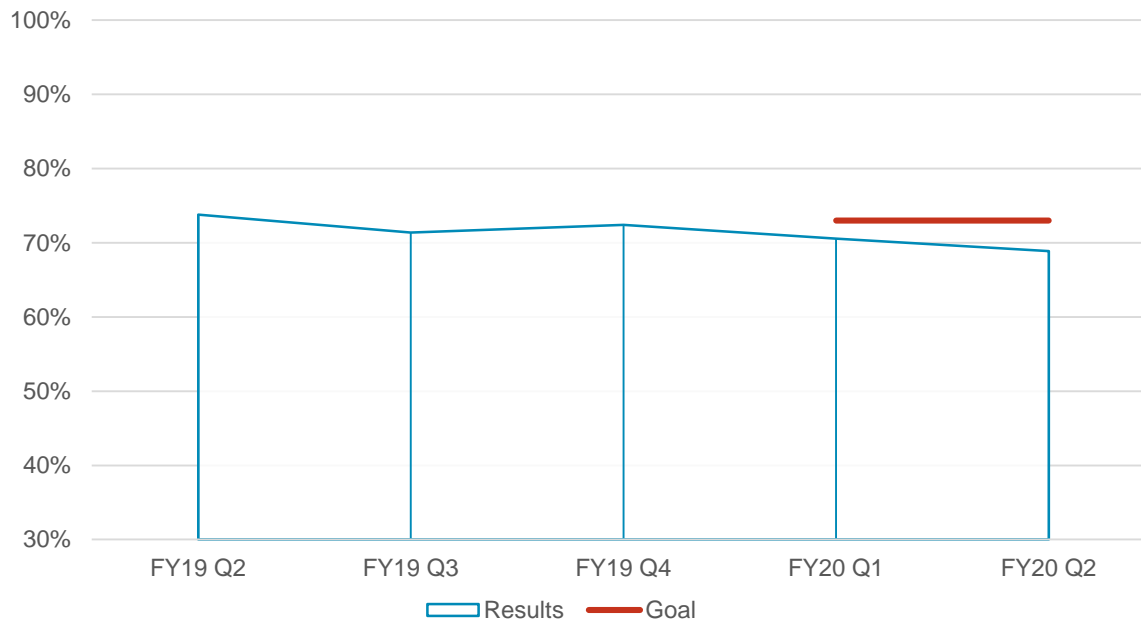
Environment – Inside Stations



Goal:	64.0%
Actual:	62.4%
Met:	No
Composite Rating Includes:	
Cleanliness of	
<ul style="list-style-type: none"> ▪ Platform (40%) ▪ Concourse (25%) ▪ Escalator (10%) ▪ Stairwells (7.5%) ▪ Elevator (10%) ▪ Restroom (7.5%) 	

- Score improved 2% over prior quarter
- Implementation of new East Bay graveyard shift 02/10/2020

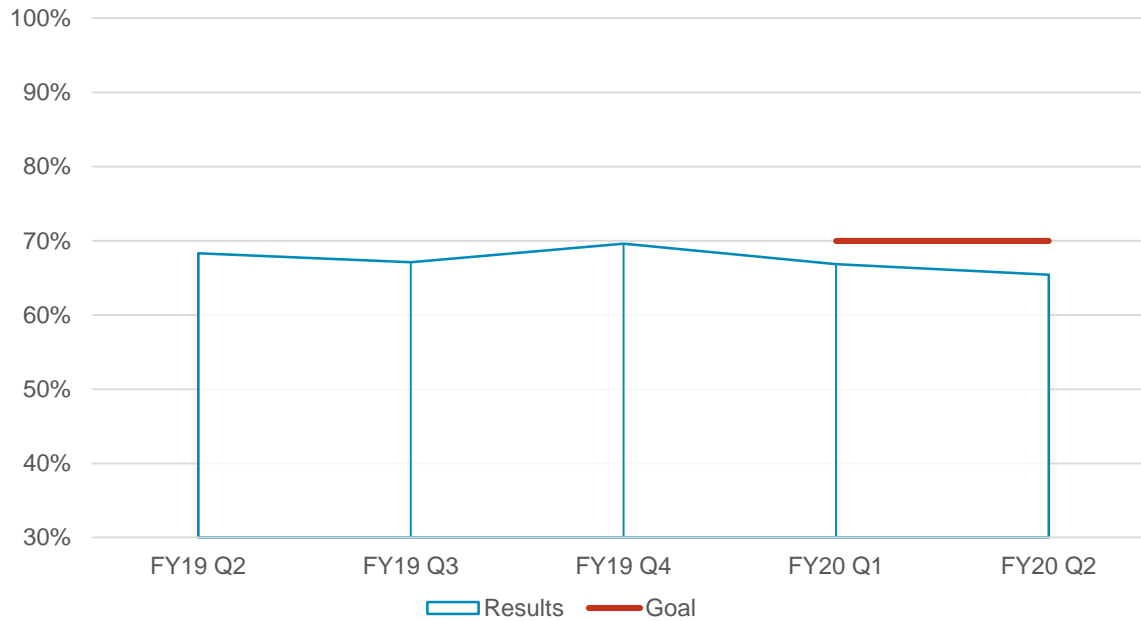
Station Vandalism



Goal:	73.0%
Actual:	68.9%
Met:	No

- Scores when down on the M, A and R lines
- Working with graffiti removal contractor and System Service Staff to prioritize quick graffiti removal

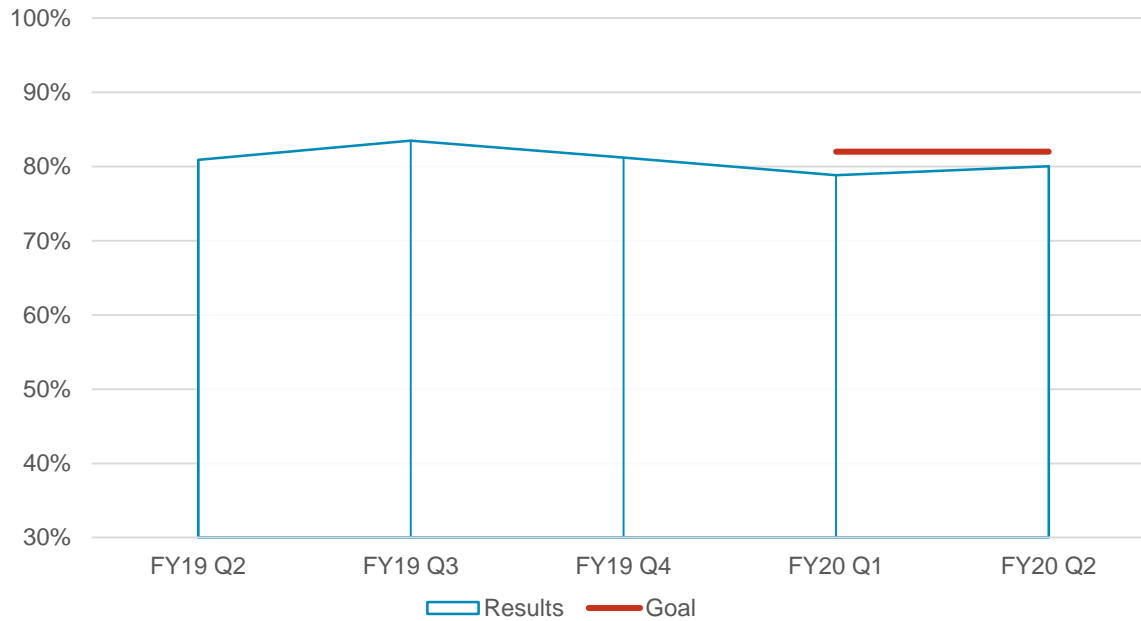
Train Interior Cleanliness



Goal:	70.0%
Actual:	65.4%
Met:	No

- Down slightly from last quarter
- Prioritizing thorough car cleaning based on actual run hours instead of calendar days
- Focus on replacing worn seats on legacy fleet
- Implemented new vandal resistant film for window sill

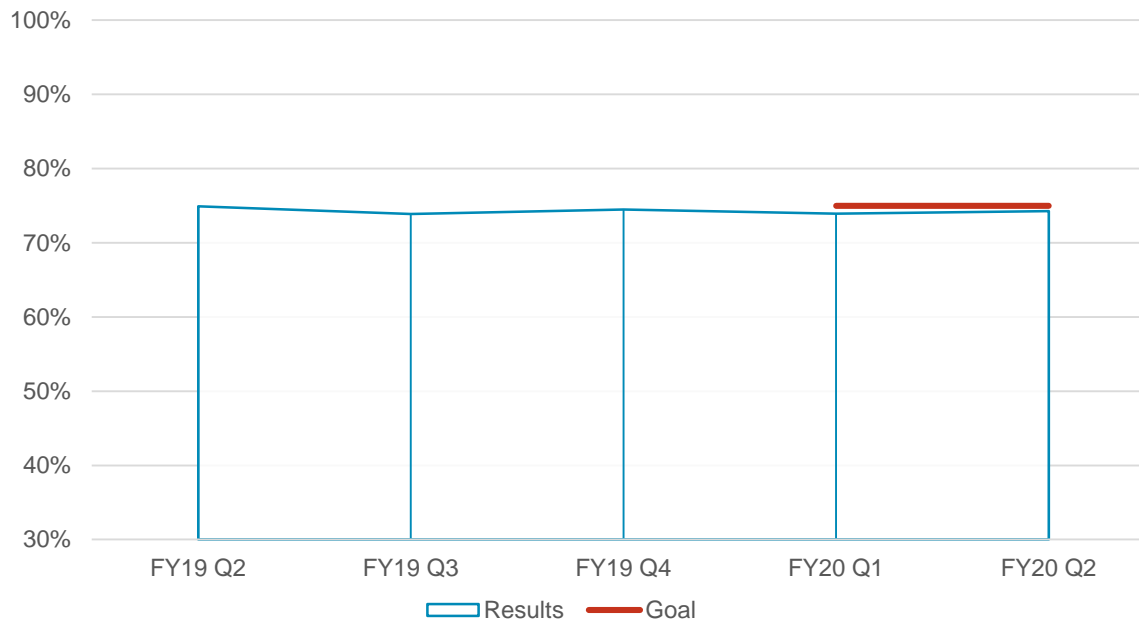
Train Temperature



Goal:	82.0%
Actual:	80.0%
Met:	No

- 2020 Legacy Fleet Pre-Season HVAC's checks have begun – motor contactors, electrical pins, electrical sockets, and sockets are inspected and a operational check is performed

Customer Service

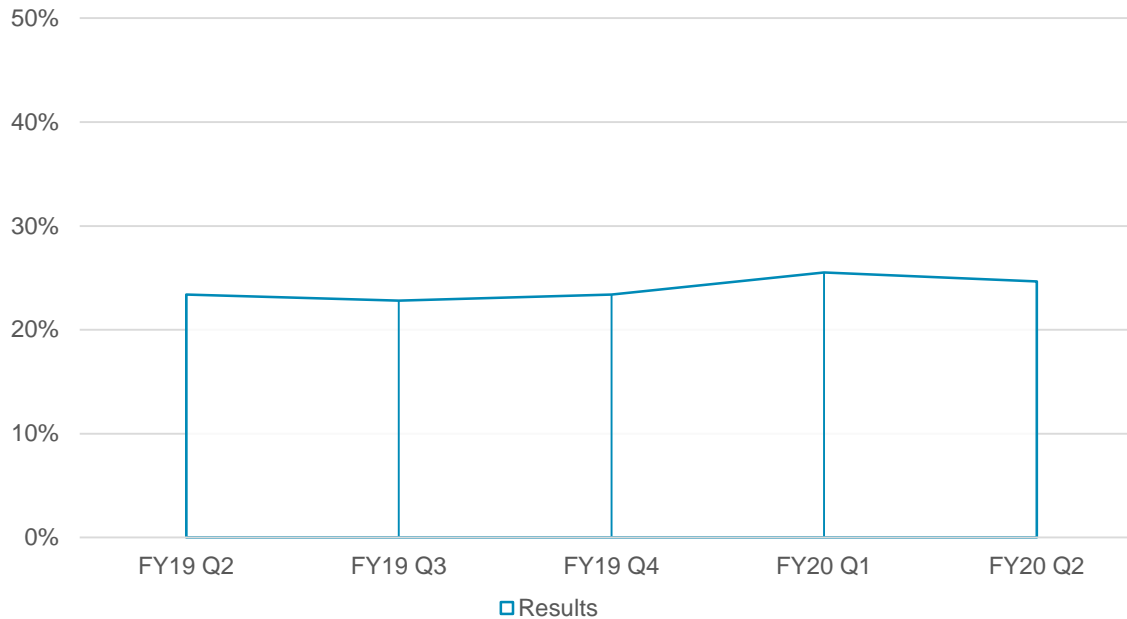


Goal:	75.00%
Actual:	74.30%
Met:	No
Composite Rating Includes:	
<ul style="list-style-type: none"> Customer Service Station Agent (if used today) (70.5%) Onboard Next Stop, Destination and Transfer Announcements (77.2%) Onboard Delay Announcements (if delayed today) (75.1%) 	

- Overall performance flat
- M/W Lines had a significant positive increase from the prior quarter (66% to 72%)
- R-Line had a significant decrease (73% to 61%)
- A/L/S Line had a small decrease from the prior quarter but still met goal (75% to 73%)
- C/K Line had a small decrease from the prior quarter and did not meet goal (71% to 69%)
- Developing customer service KPI's and providing targeted customer awareness training

Homelessness - Passenger Survey

“How well is BART addressing homelessness?”



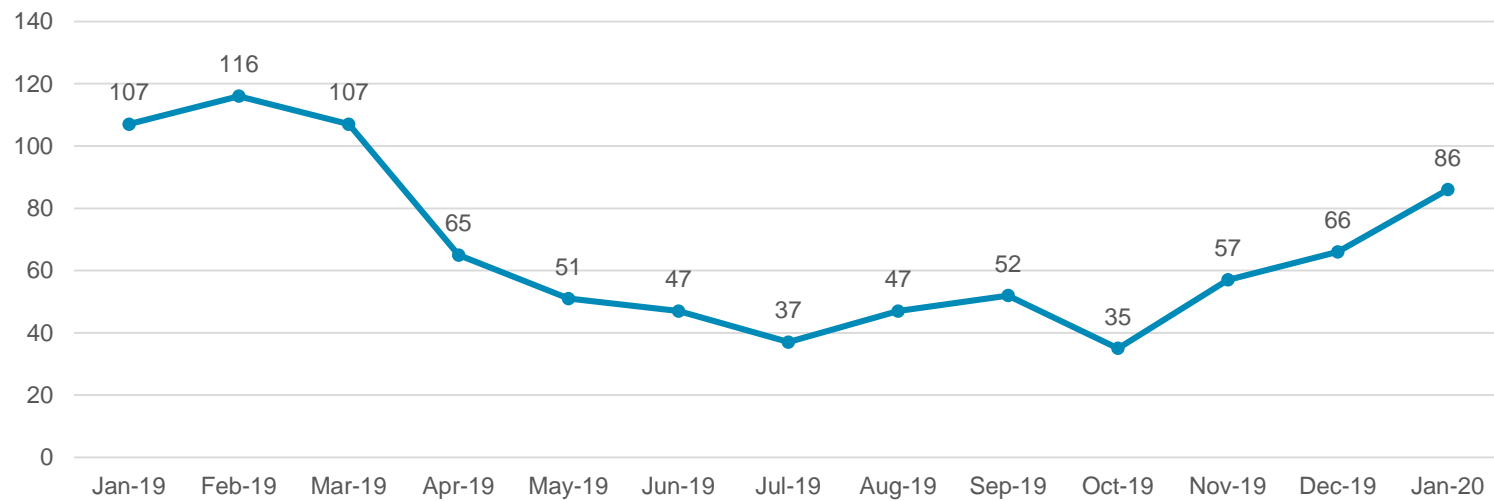
Goal:	N/A
Actual:	24.7%
Met:	N/A

- There is no significant change in the perception of how well BART is addressing homelessness

Transient Counts in San Francisco Stations

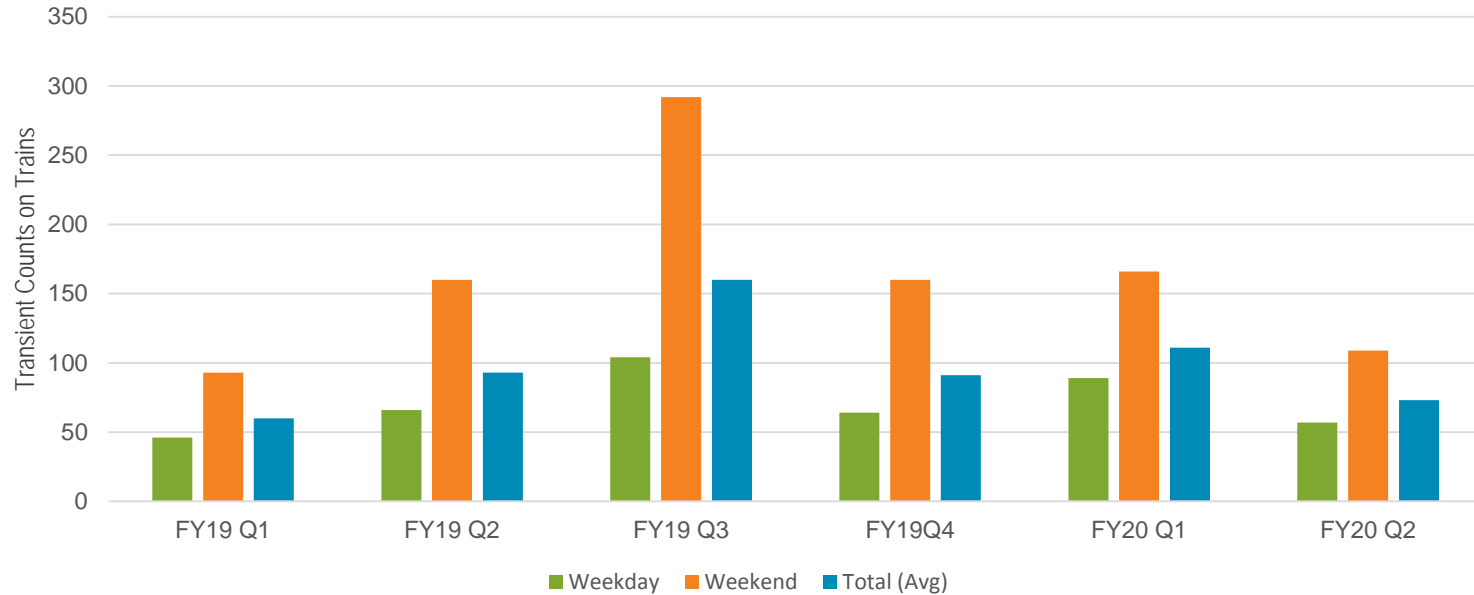


Downtown San Francisco Station Counts January 2019 - January 2020



- Counts are conducted at the four downtown SF stations on the second Tuesday of each month at three time periods (6:00am-8:00AM, 2:00pm-4:00pm and 8:00pm-10:00pm). The graph represents the totals for the three time periods
- The count total is creeping up from the low of 35 in October 2019
- It is still down 20% when comparing January 2019 to January 2020

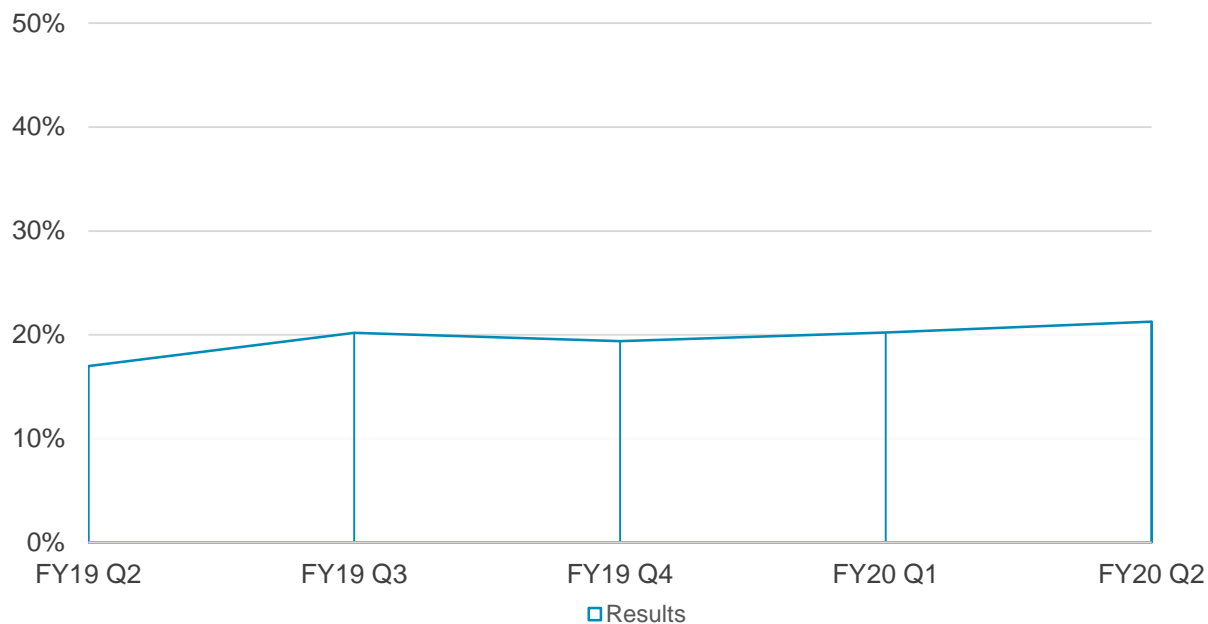
Transient Counts on Trains



- Transient counts on the train were down this quarter
- 34% decrease on weekday mornings

Fare Evasion Passenger Survey

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

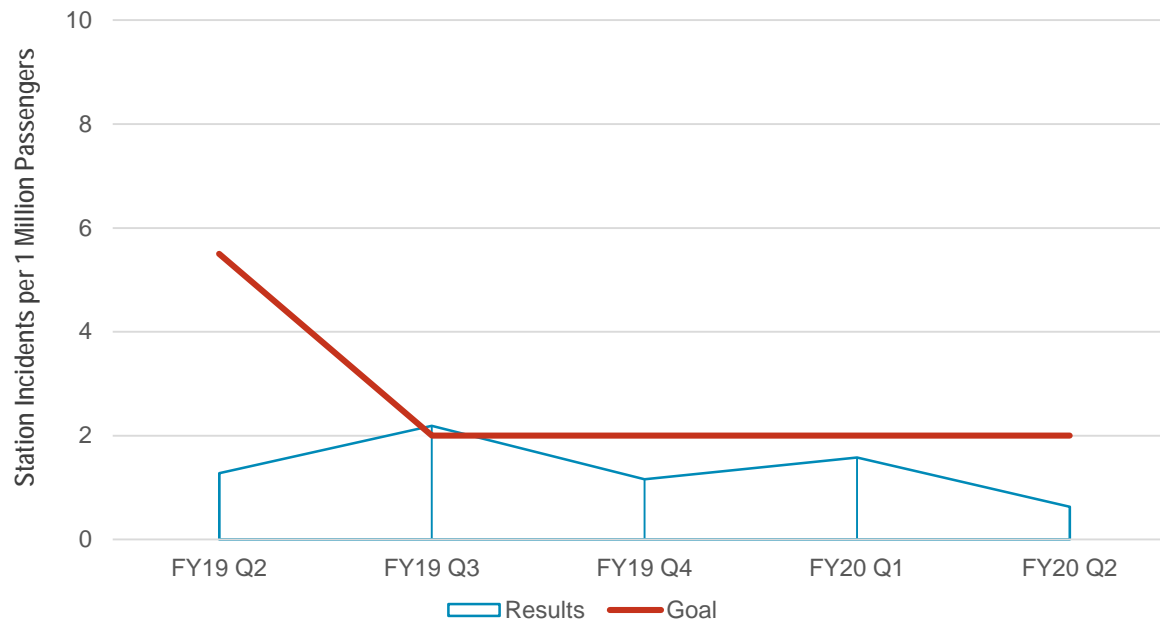


Goal:	N/A
Actual:	21.30%
Met:	N/A

- Impression of fare evasion has been fairly flat over four quarters
- Station hardening completed at 17 stations, with 10 additional stations to be completed by end of fiscal year
- The cinch mod has been installed at 27 of 48 stations

Patron Safety – Station

Incidents per 1 Million Passengers

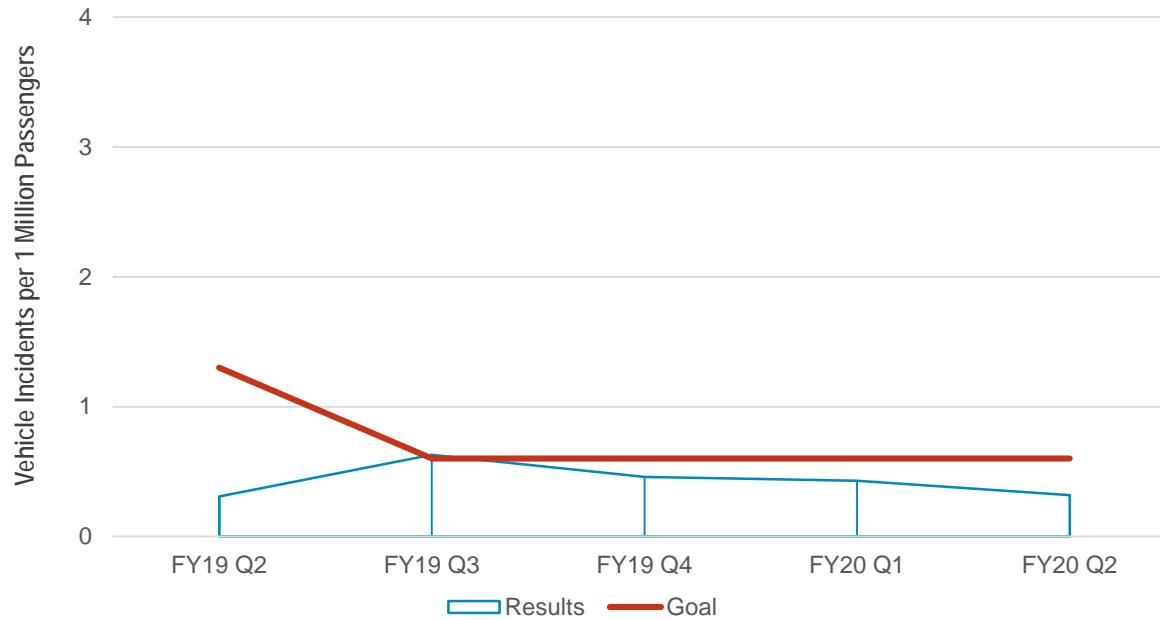


Goal:	2.00
Actual:	0.63
Met:	Yes

- Continues to meet new goal set in FY19 Q3

Patron Safety – Vehicle

Incidents per 1 Million Passengers

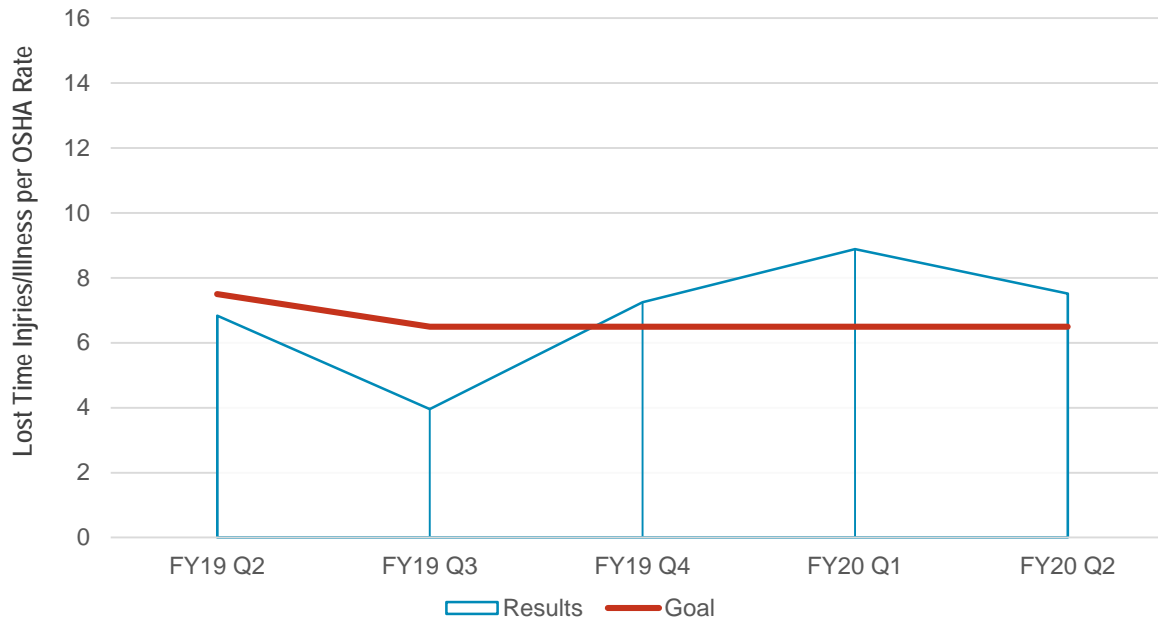


Goal:	0.60
Actual:	0.32
Met:	Yes

- Continues to meet new goal set in FY19 Q3

Employee Safety – Lost Time

Lost Time Injuries per OSHA Rate

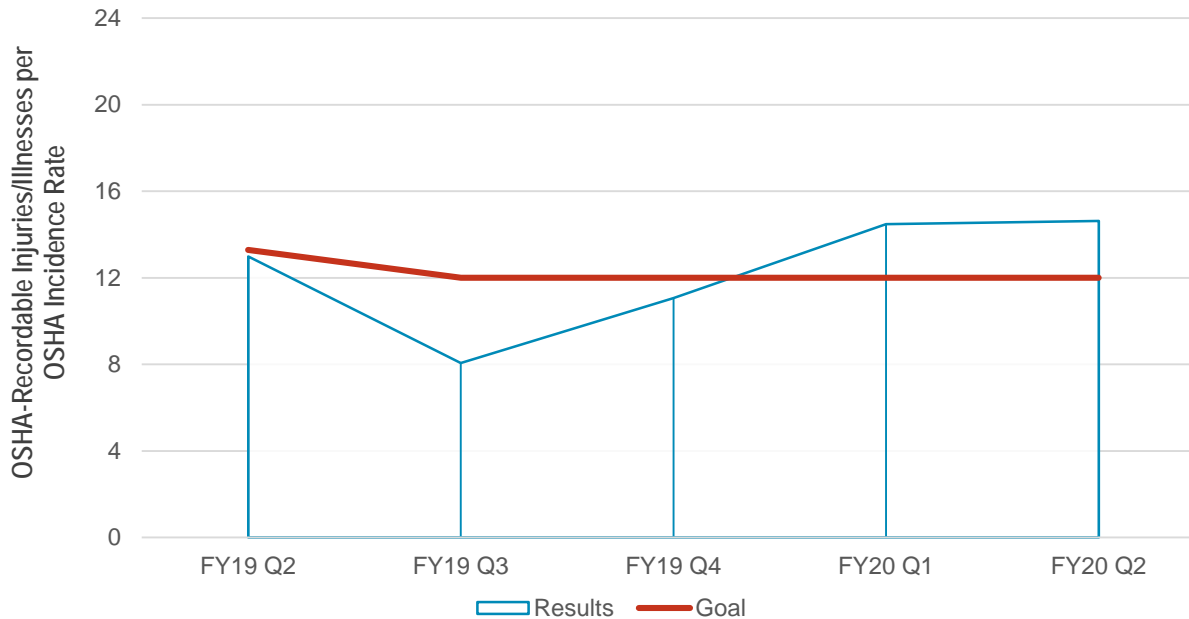


Goal:	6.50
Actual:	7.52
Met:	No

- Lost time cases went down 21%
- Incidents with the most lost workdays involved (1) strains and (2) trauma response
- Reported strain incidents are up 39% while reported trauma incidents are down 50%

Employee Safety – Injury Count

OSHA Recordable Injuries per OSHA Incidence Rate

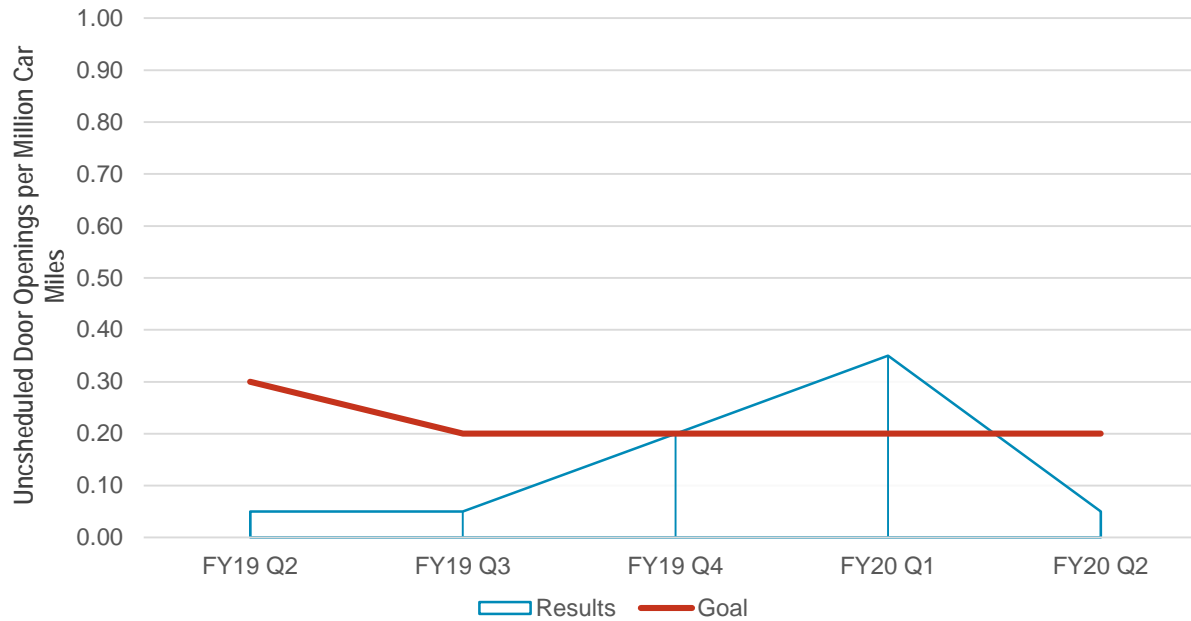


Goal:	12.00
Actual:	14.63
Met:	No

- Overall, OSHA recordable cases went down 13%
- Most common incidents involve reported sprains and strains or psychological injuries
- Interdisciplinary team to revise employee injury reporting process and improve injury investigation procedure

Operating Safety – Door Openings

Unscheduled Door Openings per Million Car Miles

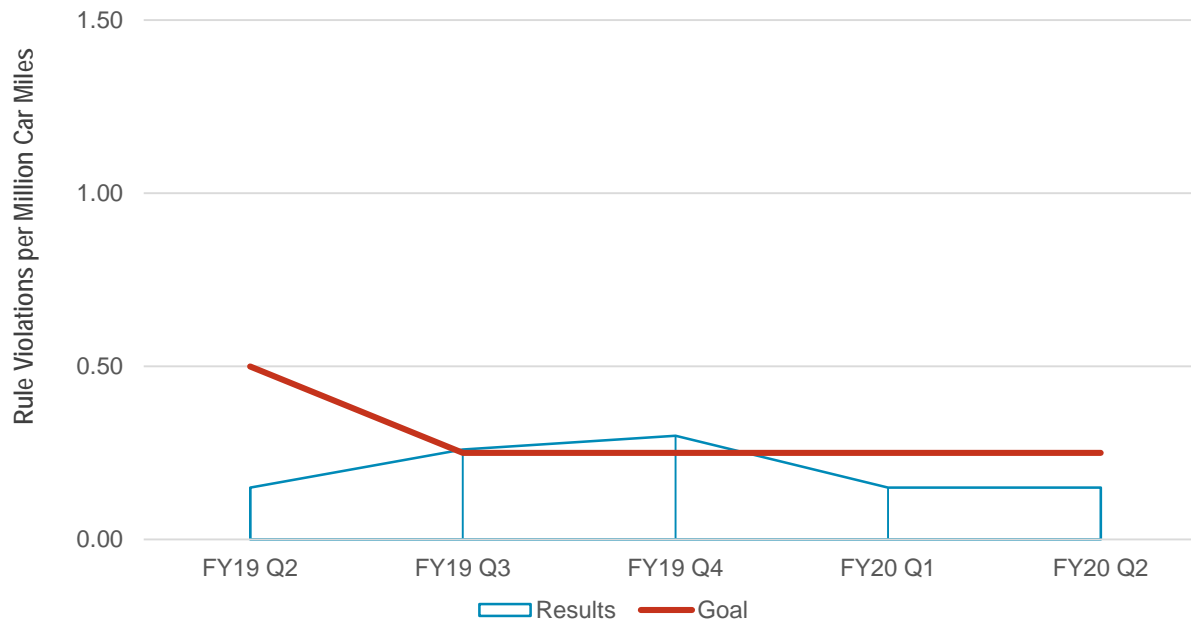


Goal:	0.20
Actual:	0.05
Met:	Yes

- Improved from FY20 Q1
- Transportation and Safety jointly conducting additional safety compliance checks in the field

Operating Safety – Rule Violations

Rule Violations per Million Car Miles

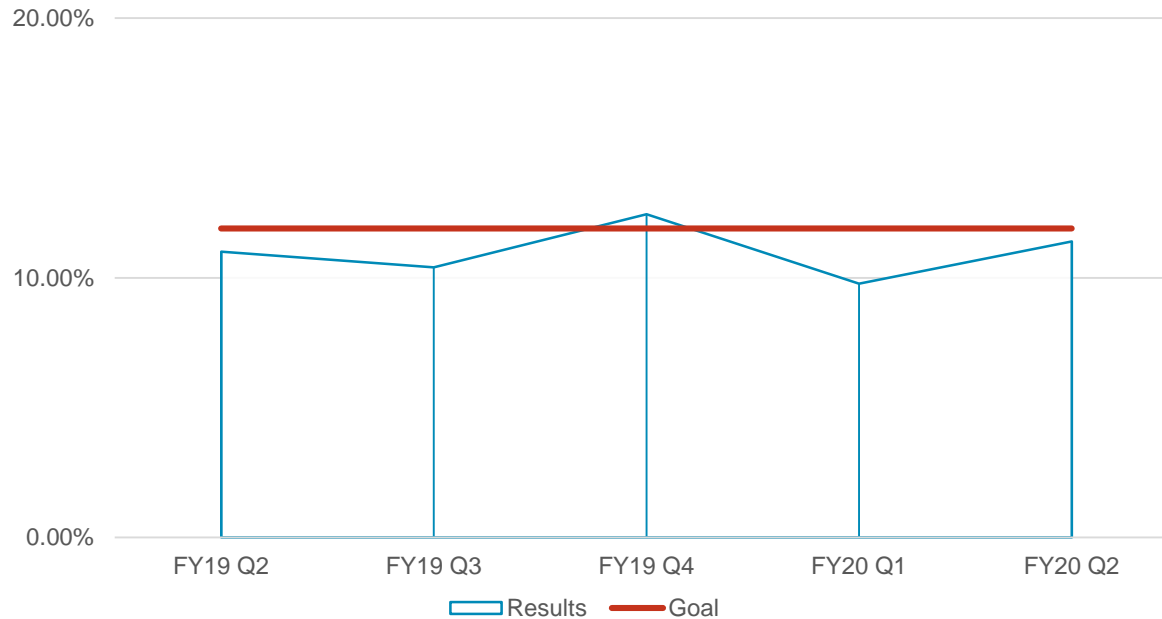


Goal:	0.25
Actual:	0.15
Met:	Yes

- Continues to meet new goal set in FY19 Q3

BART Police Presence

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



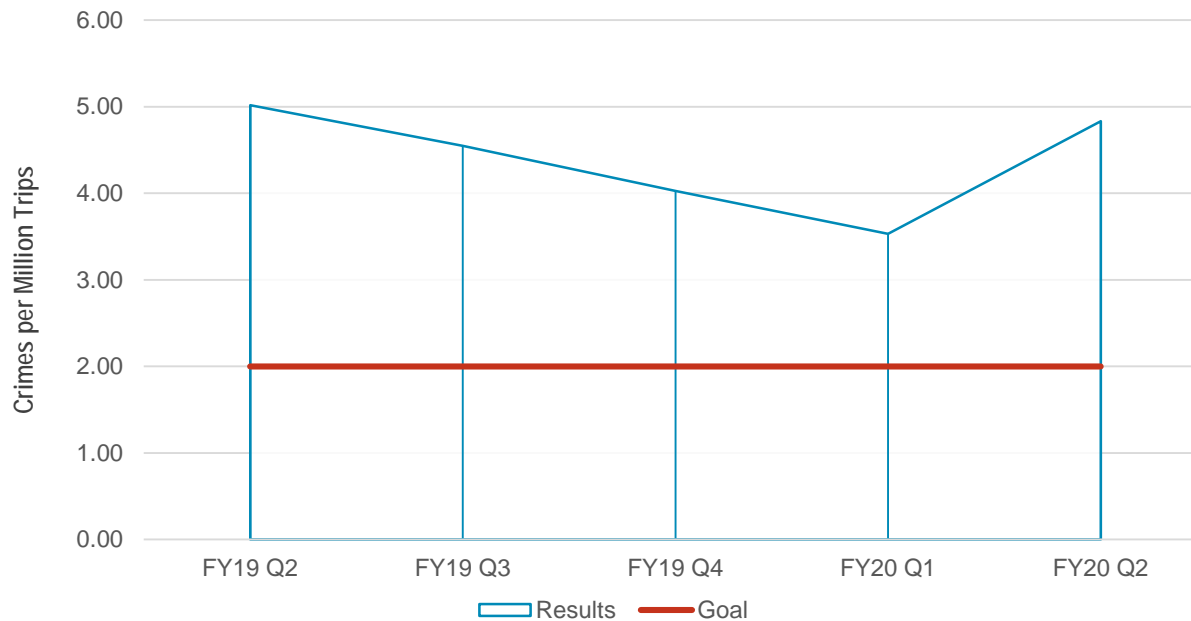
Goal:	11.9%
Actual:	11.4%
Met:	No

Composite Rating Includes:	
Police Seen:	
▪	On Train (7.2%) ↑
▪	Outside the Station (16.5%) ↑
▪	In the Station (10.0%)
▪	On Train after 7PM and Weekends (7.4%) ↑
▪	Outside the Station after 7PM and Weekends (16.6%) ↑
▪	In the Station after 7PM and Weekends (10.6%)

- Increase from previous quarter (+1.6%)
- Continued priority to increase presence on trains
- Expect to meet the goal in Q3 with the addition of Train Team and Ambassador Program

Crimes Against Persons

Crimes per Million Trips

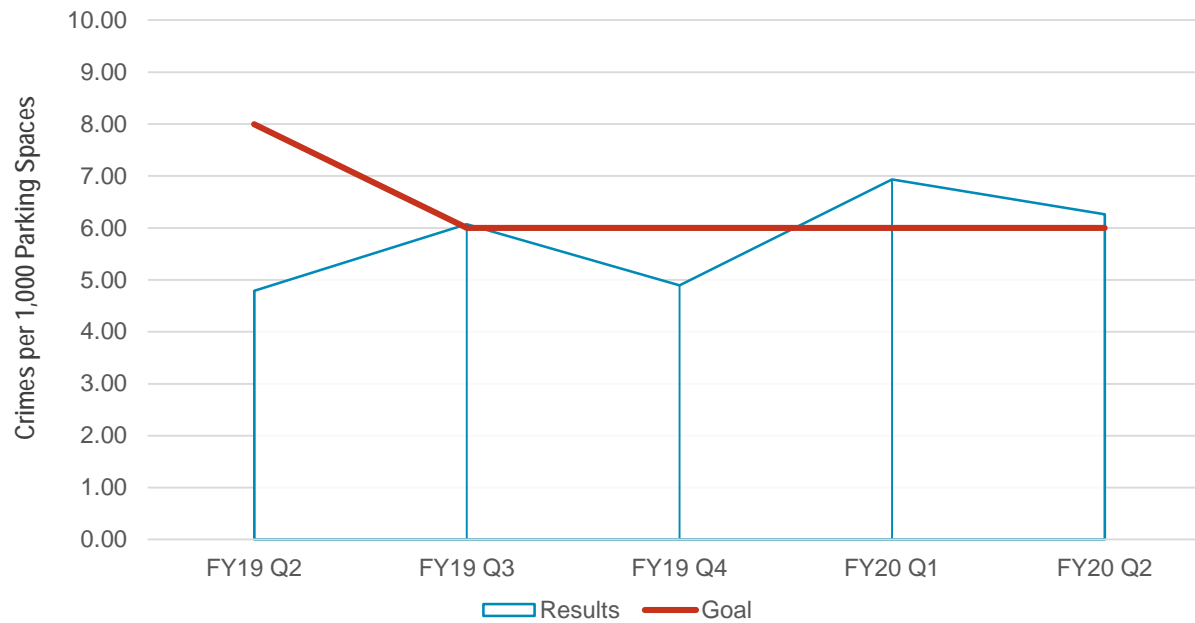


Goal:	2.00
Actual:	4.83
Met:	No
Violations Include:	
<ul style="list-style-type: none">▪ Homicide▪ Rape▪ Robbery▪ Aggravated Assault	

- Increase in reports of crimes against persons
- A recently analysis found over 50% of violent crimes are currently attributed to robberies in the system targeting electronics

Auto Burglary

Crimes per 1,000 Parking Spaces

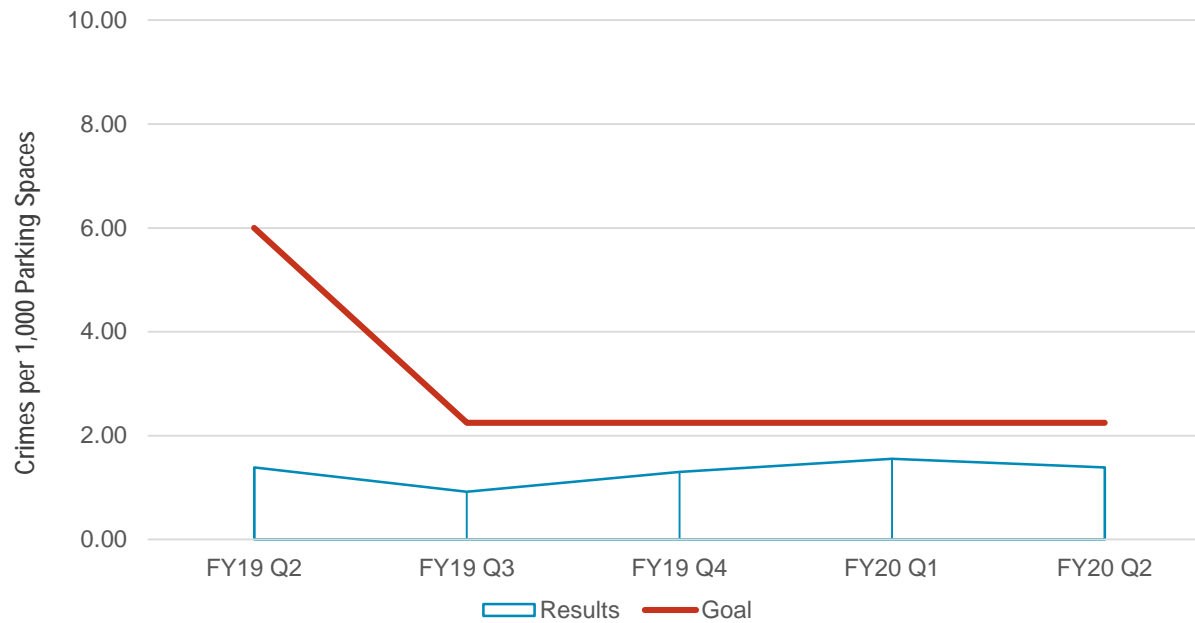


Goal:	6.00
Actual:	6.26
Met:	No

- Consistent reports of burglaries in the A and R lines
- Officers continue to patrol and monitor problematic stations

Auto Theft

Crimes per 1,000 Parking Spaces

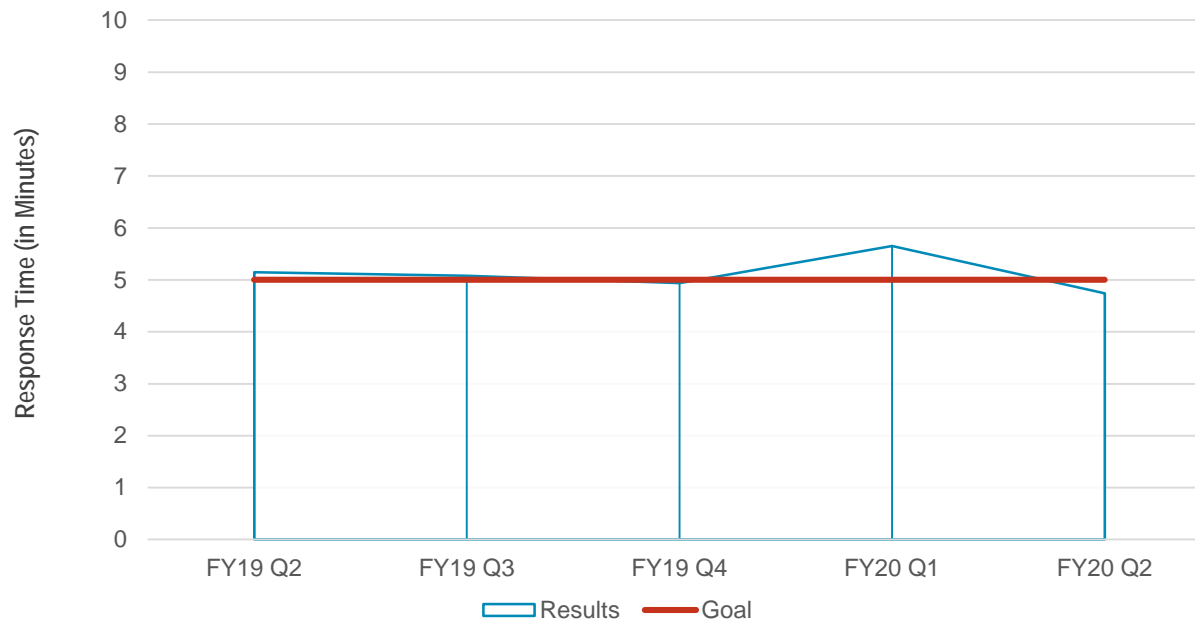


Goal:	2.25
Actual:	1.39
Met:	Yes

- Decrease of auto thefts reported systemwide - consistent with auto theft reports in the bay area

Average Emergency Response Time

Response Time (in Minutes)

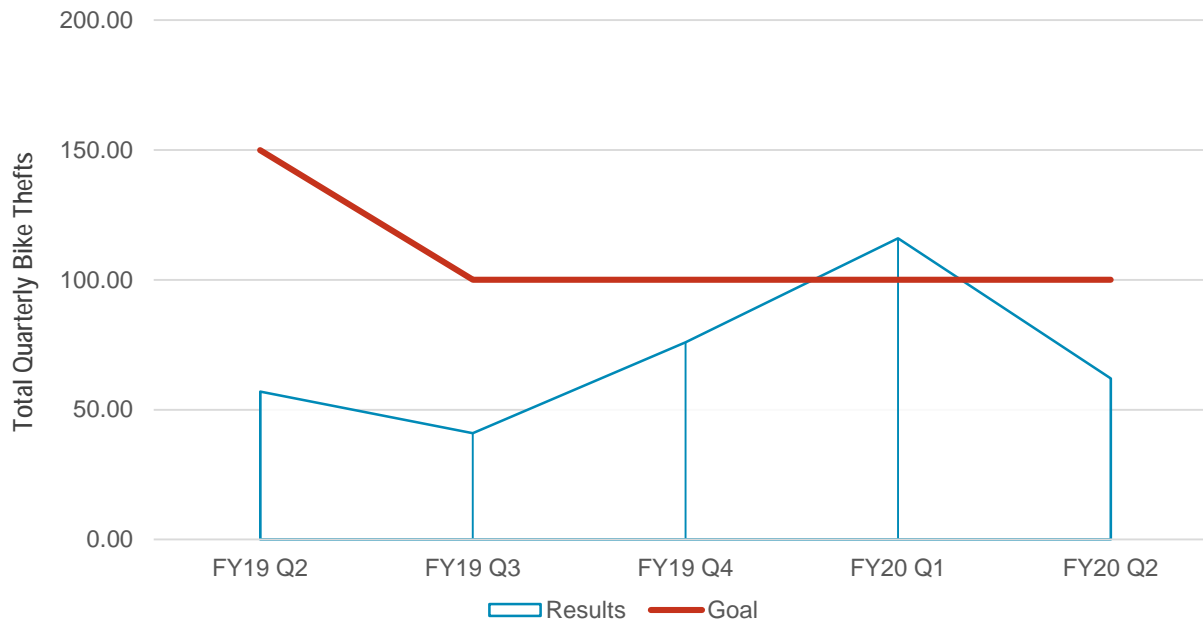


Goal:	5.00
Actual:	4.74
Met:	Yes

- Response time to emergency priorities have been improved

Bike Theft

Count of Bike Thefts



Goal:	100
Actual:	62
Met:	Yes

- A decrease in bike thefts continue after a spike during the previous quarter.
- Trends are similar with previous years, with a spike during summer/fall months (each FY Q1)