



Quarterly Service Performance Review

Fourth Quarter, FY 2018

April - June, 2018

Operations & Safety Committee

August 9, 2018

PERFORMANCE INDICATORS	SUMMARY CHART 4th QUARTER FY 2018						YEAR TO DATE			
	CURRENT QUARTER			PRIOR QTR ACTUALS						
	ACTUAL	STANDARD	STATUS	LAST QUARTER	THIS QTR LAST YEAR	ACTUAL	STANDARD	STATUS		
Average Ridership - Weekday	416,706	425,658	NOT MET		405,801	419,794	415,425	426,360	NOT MET	
Customers on Time										
Peak	93.29%	95.00%	NOT MET		91.22%	83.46%	90.21%	95.00%	NOT MET	
Daily	94.18%	95.00%	NOT MET		93.43%	87.66%	92.35%	95.00%	NOT MET	
Trains on Time										
Peak	90.28%	N/A	N/A		86.56%	73.79%	85.15%	N/A	N/A	
Daily	91.25%	92.00%	NOT MET		88.76%	79.72%	87.31%	92.0%	NOT MET	
Peak Period Transbay Car Throughput										
AM Peak	95.95%	97.50%	NOT MET		95.45%	95.56%	95.78%	97.50%	NOT MET	
PM Peak	96.60%	97.50%	NOT MET		95.56%	96.15%	95.70%	97.50%	NOT MET	
Car Availability at 4 AM (0400)	589	595	NOT MET		596	573	587	595	NOT MET	
Mean Time Between Service Delays	4,663	4,000	MET		4,737	4,723	4,422	4,000	MET	
Elevators in Service										
Station	98.40%	98.00%	MET		97.93%	98.57%	98.29%	98.00%	MET	
Garage	93.57%	98.00%	NOT MET		97.20%	96.60%	96.43%	98.00%	NOT MET	
Escalators in Service										
Street	86.70%	95.00%	NOT MET		84.17%	87.80%	88.66%	95.00%	NOT MET	
Platform	95.33%	96.00%	NOT MET		95.30%	94.73%	95.73%	96.00%	NOT MET	
Automatic Fare Collection										
Gates	99.57%	99.00%	MET		99.33%	99.21%	99.49%	99.00%	MET	
Vendors	98.22%	95.00%	MET		96.90%	95.55%	96.69%	95.00%	MET	
Wayside Train Control System	0.78	1.00	MET		0.84	1.55	1.28	1.00	NOT MET	
Computer Control System	0.03	0.08	MET		0.017	0.080	0.051	0.08	MET	
Traction Power	0.06	0.20	MET		0.13	0.13	0.11	0.20	MET	
Track	0.01	0.30	MET		0.04	1.48	0.07	0.30	MET	
Transportation	0.54	0.50	NOT MET		0.55	0.52	0.55	0.50	NOT MET	
Environment Outside Stations	2.74	2.80	NOT MET		2.66	2.76	2.66	2.80	NOT MET	
Environment Inside Stations	2.55	3.00	NOT MET		2.56	2.62	2.54	3.00	NOT MET	
Station Vandalism	2.91	3.19	NOT MET		2.90	2.95	2.90	3.19	NOT MET	
Station Services	2.84	3.06	NOT MET		2.87	2.91	2.85	3.06	NOT MET	
Train P.A. Announcements	3.10	3.17	NOT MET		3.12	3.09	3.09	3.17	NOT MET	
Train Exterior Appearance	2.74	3.00	NOT MET		2.78	2.79	2.77	3.00	NOT MET	
Train Interior Appearance	2.79	3.00	NOT MET		2.78	2.85	2.81	3.00	NOT MET	
Train Temperature	3.11	3.12	NOT MET		3.15	3.11	3.11	3.12	NOT MET	
Customer Complaints										
Complaints per 100,000 Passenger Trips	7.80	5.07	NOT MET		7.15	8.89	7.38	5.07	NOT MET	
Safety										
Station Incidents/Million Patrons	1.20	5.50	MET		1.10	1.64	1.39	5.50	MET	
Vehicle Incidents/Million Patrons	0.36	1.30	MET		0.38	0.35	0.46	1.30	MET	
Lost Time Injuries/Illnesses/Per OSHA	NA	7.50	NOT MET		5.60	7.25	6.83	7.50	MET	
OSHA-Recordable Injuries/Illnesses/Per OSHA	NA	13.30	NOT MET		8.20	10.12	10.75	13.30	MET	
Unscheduled Door Openings/Million Car Miles	0.200	0.300	MET		0.210	0.100	0.140	0.300	MET	
Rule Violations Summary/Million Car Miles	0.200	0.500	MET		0.050	0.460	0.153	0.500	MET	
Police										
BART Police Presence	10%	12%	NOT MET		11%	10%	11%	9%	MET	
Quality of Life per million riders	44.59	N/A	N/A		134.41	112.98	86.56	N/A	N/A	
Crimes Against Persons per million riders	3.87	2.00	NOT MET		3.60	3.28	3.53	2.00	NOT MET	
Auto Burglaries per 1,000 parking spaces	5.88	8.00	MET		4.41	4.64	5.70	8.00	MET	
Auto Thefts per 1,000 parking spaces	1.95	6.00	MET		2.24	2.29	2.10	6.00	MET	
Police Response Time per Emergency Incident (Minutes)	4.36	5.00	MET		4.96	4.24	4.95	5.00	MET	
Bike Thefts (Quarterly Total and YTD Quarterly Average)	99	150.00	MET		71	129	96	150.00	MET	

LEGEND:

Goal met

Goal not met but within 5%

Goal not met by more than 5%

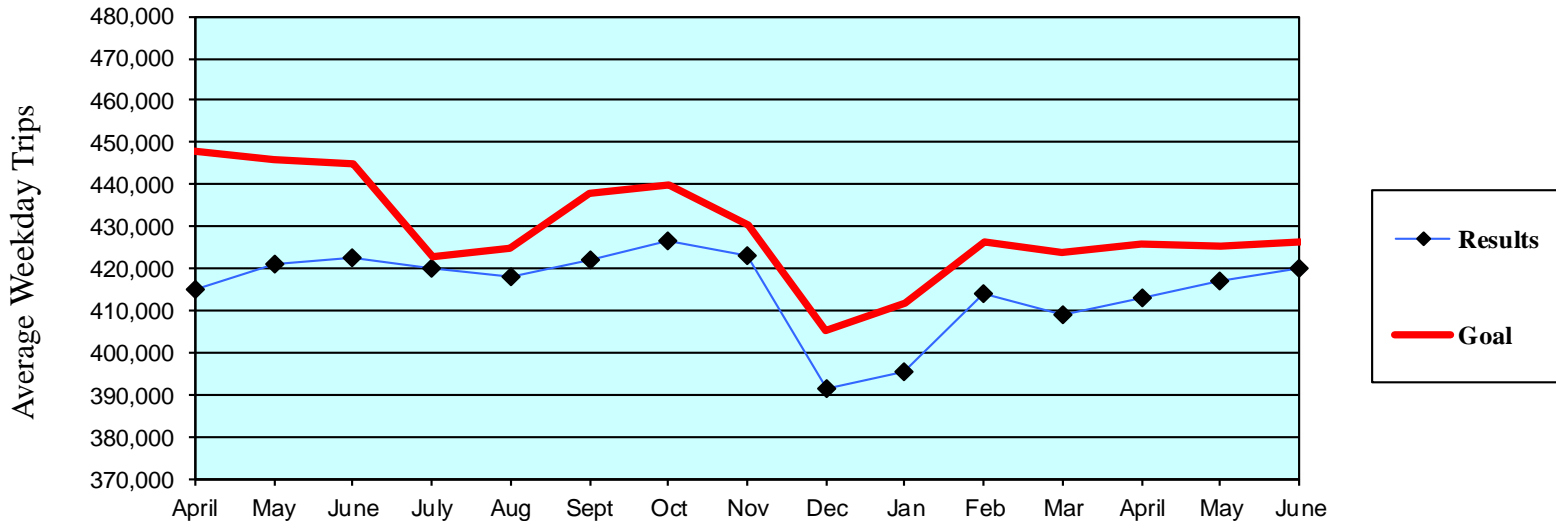


FY18 Fourth Quarter Overview

- ✓ Rate of ridership decline continues to lessen, weekday average only down by 0.7% compared to same quarter last year; peak period ridership increased by 1%
- ✓ Steady improvement in train service reliability continues, customer on-time 94.2%
- ✓ Equipment Reliability: Car, Track, Train Control, and Computer Control System all exceeded goal (thus the improvement in on time performance)
- ✓ Equipment Availability: Goal met for Vendors, Gates and Station Elevators. Goal not met but performance improved for Street and Platform Escalators. Goal not met for Cars and Garage Elevators
- ✓ Passenger Environment: 2 of 4 Station indicators improved, 1 of 4 Train indicators improved. None met goal
- ✓ Complaint numbers up from last quarter, down from last year. Significantly, complaints about Station Cleanliness, Quality of Life and Service Delays were down



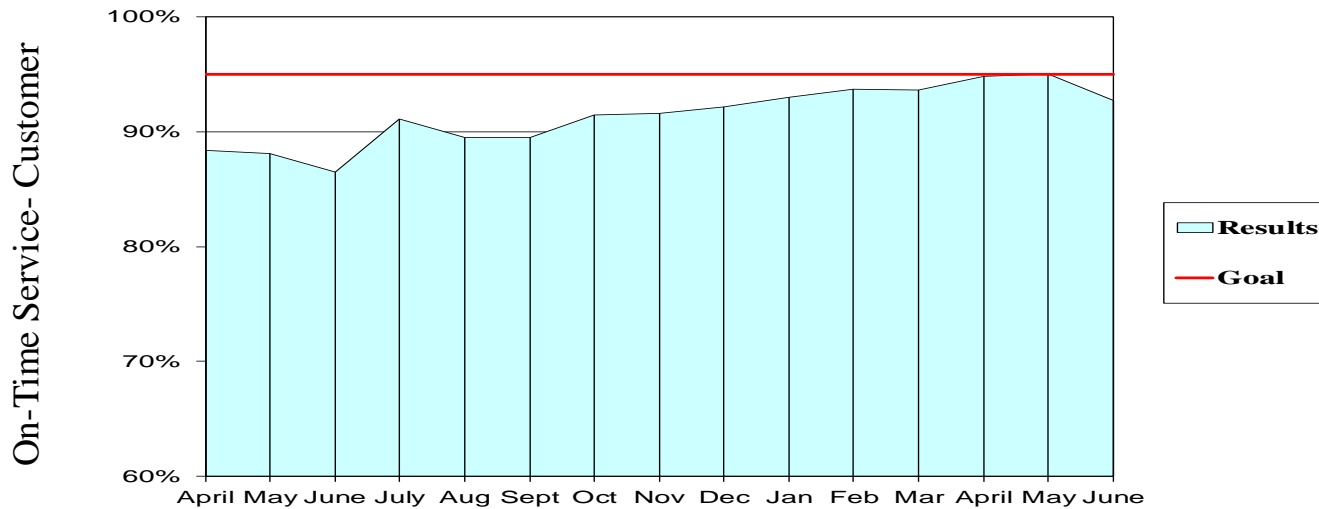
Customer Ridership



- ✓ Total ridership decreased by 1.0% compared to same quarter last year
- ✓ Average weekday ridership (416,706) down by 0.7% from same quarter last year
- ✓ Core weekday ridership down by 0.6% from same quarter last year
- ✓ SFO Extension weekday ridership down by 1.7% from same quarter last year
- ✓ Average peak ridership up by 1.0% compared to same quarter last year
- ✓ During Q4 there were two Top 10 Ridership Days:
 - 6/12/2018: 493,927 – Warriors Championship Parade; A's vs. Houston (#7 Weekday)
 - 6/24/2018: 241,761 – SF Pride Celebration & Parade; Giants vs. San Diego (#8 Sunday)
- ✓ Saturday and Sunday down by 2.8% and 3.4%, respectively, from same quarter last year



On-Time Service - Customer

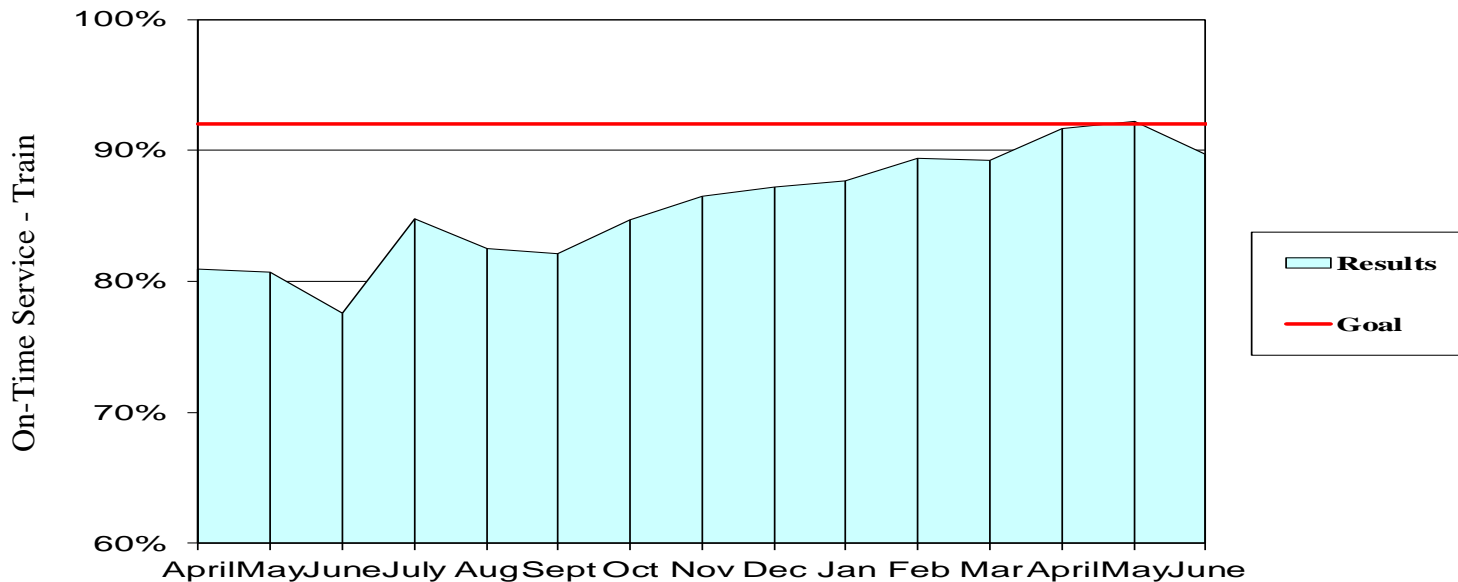


- ✓ Continued substantial improvement
- ✓ 94.2%, 95.00% goal not met, up .75% from prior quarter
- ✓ Goal met in May with 95.02%
- ✓ Delay events causing the most late trains:

1	18-Jun-18	L.Merritt I-Lk	Train Struck A Person On Trackway	People	104
2	06-Apr-18	16th Street	BPD Hold (Patron Threatening Others/Knife Involved)	People	67
3	14-May-18	Systemwide	Earthquake	Earthquake	56
4	12-Jun-18	A,K,R-Lines	Warriors Parade Event	Event Cong.	52
5	30-Apr-18	Systemwide	Earthquake	Earthquake	34
6	13-Jun-18	Lake Merritt	MUX (False-Occupancy)	Equip	32
7	17-May-18	W.C. I-Lk-No.	Routing (Loss of Comms & Control)	Equip	32
8	21-May-18	Orinda	Inverter (Multiple Cars/Smoke)	Vehicle	31
9	07-Apr-18	Coliseum	BPD Hold (Weapon Assault Invest./Stabbing Suspect)	People	28
10	25-May-18	San Leandro	BPD Hold (Disorderly Patron/Fight)	People	27



On-Time Service - Train



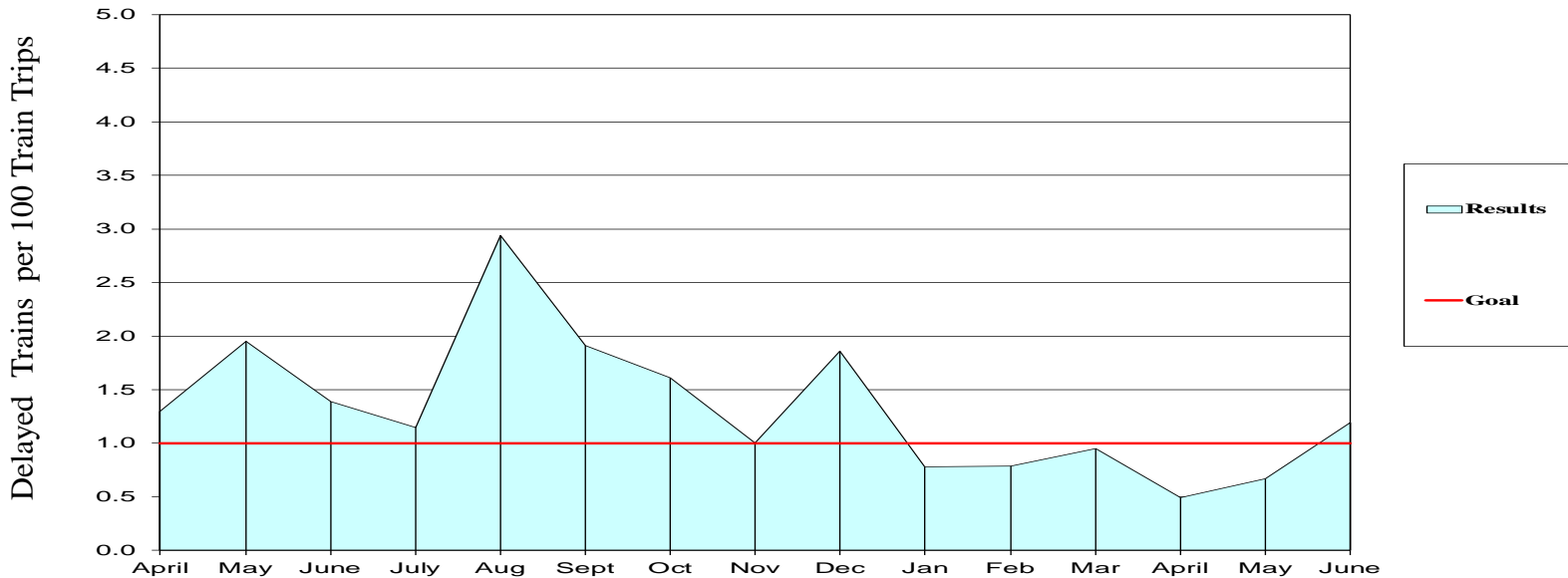
- ✓ Continued substantial improvement
- ✓ 91.3%, 92.00% goal not met; up 2.5% from prior quarter
- ✓ Goal met in May with 92.2%
- ✓ 36.9% of late trains were late due to multiple small delays, each under 5 minutes
- ✓ Categorization of late trains due to a known delay event of 5 minutes or greater:

POLICE ACTIONS	30.2% of delayed trains
TRAIN CONTROL	10.3% of delayed trains
RAIL CAR	8.2% of delayed trains
CONGESTION	7.5% of delayed trains
OPERATIONS	7.1% of delayed trains
MEDICAL EMERGENCY	7.0% of delayed trains
VANDALISM	6.5% of delayed trains
PERSON ON TRACKWAY	2.9% of delayed trains
TRAIN STRUCK PATRON	2.4% of delayed trains
MULTIPLE CAUSE	2.2% of delayed trains



Wayside Train Control System

Includes False Occupancy & Routing, Delays Per 100 Train Runs

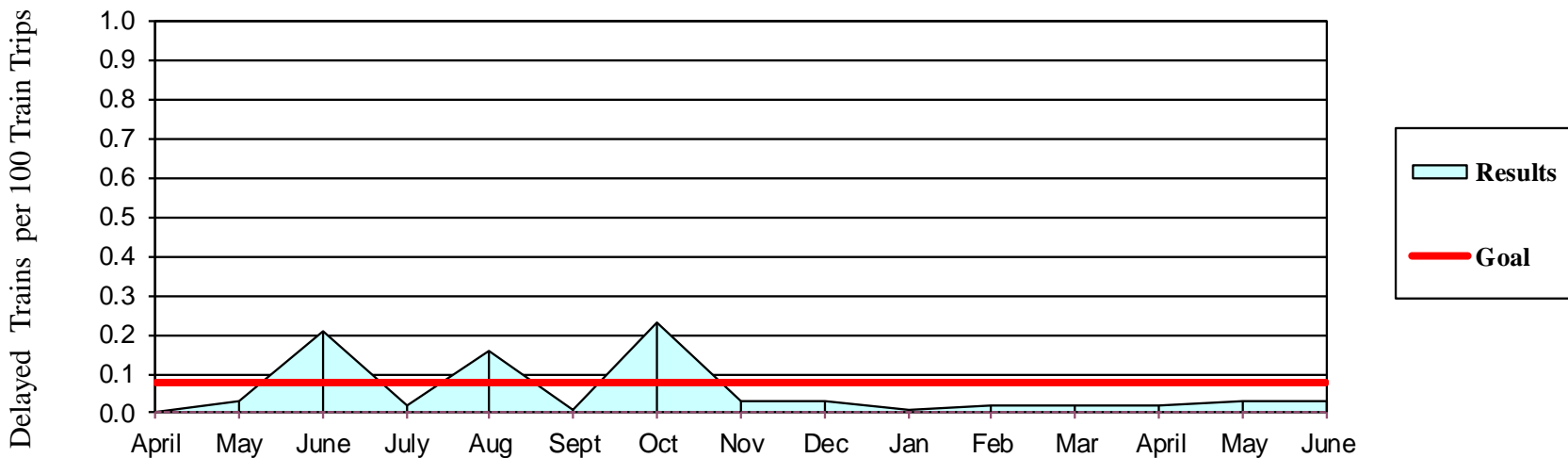


- ✓ Goal met – Actual .79 / Goal 1.00
- ✓ Best performance since FY13 Q1
- ✓ Reallocation of labor has result in higher PM completion rate (95%)
- ✓ Maintenance & Engineering focused on root cause analysis and quality fixes



Computer Control System

Includes ICS computer & SORS, Delays per 100 train runs



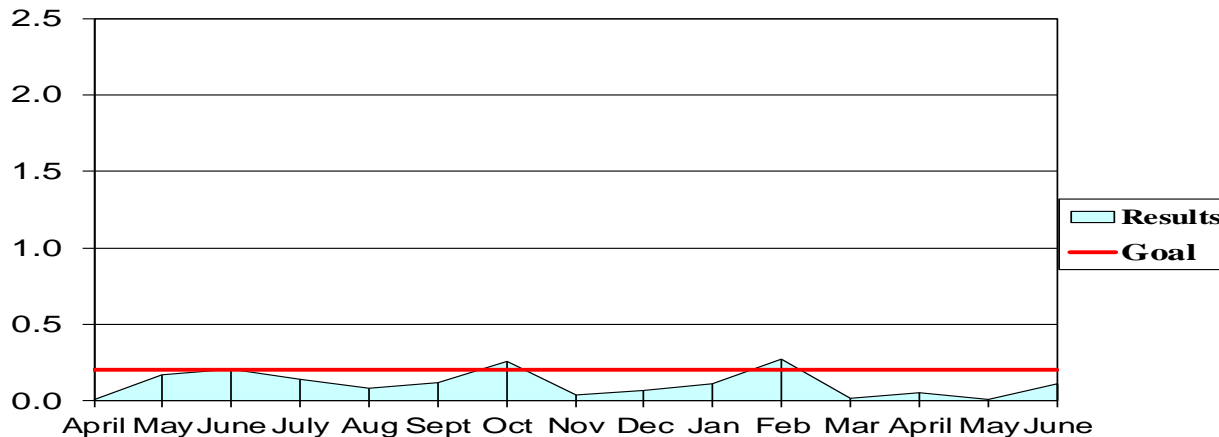
- ✓ Goal met – Actual 0.03 / Goal 0.08
- ✓ Engineering provided Maintenance with a new “NOC – Network Operation Center which allows for real time monitoring
 - ✓ Maintenance able to respond before OCC reports a problem
 - ✓ Enhancements underway will allow for detection of deteriorating conditions allowing for predictive maintenance.



Traction Power

**Includes Coverboards, Insulators,
Third Rail Trips, Substations,
Delays Per 100 Train Runs**

Delayed Trains per 100 Train Trips

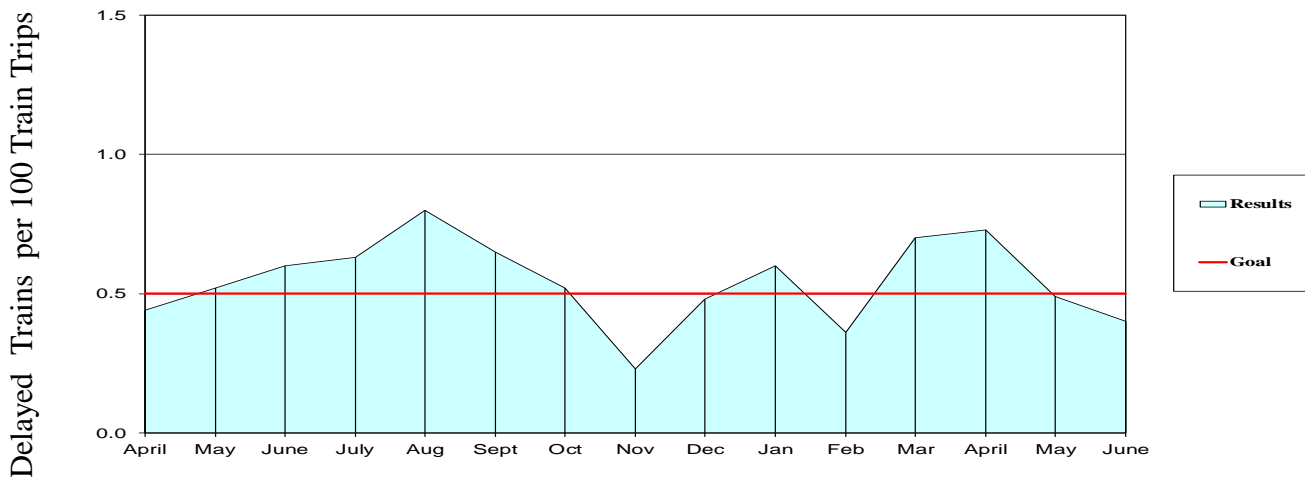


- ✓ Goal met – Actual .06 / Goal .2
- ✓ Number of incidents continue to drop from last quarter
- ✓ RR Bond Projects continue to provide much needed reliability boost for Traction Power System
- ✓ 34.5kv cable replacement Washington Street, Oakland to Coliseum Substation under construction. Will complete next quarter.



Transportation

Includes Late Dispatches, Controller-Train Operator-Tower Procedures and Other Operational Delays Per 100 Train Runs

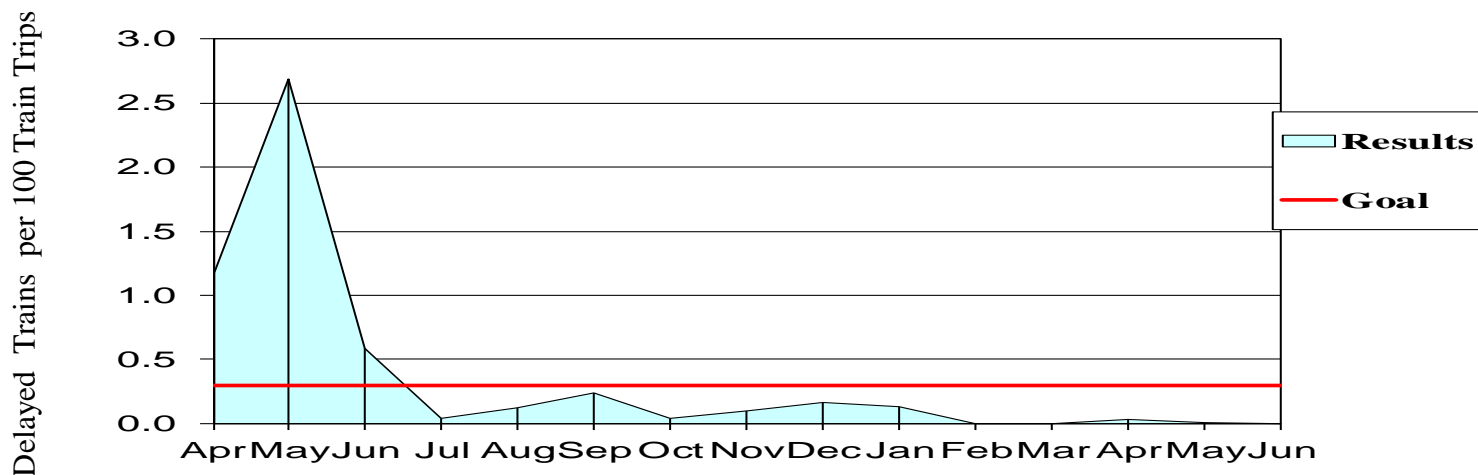


- ✓ Goal not met – Actual .54 / Goal .5
- ✓ Lack of Train Operator availability primary cause of goal not being met



Track

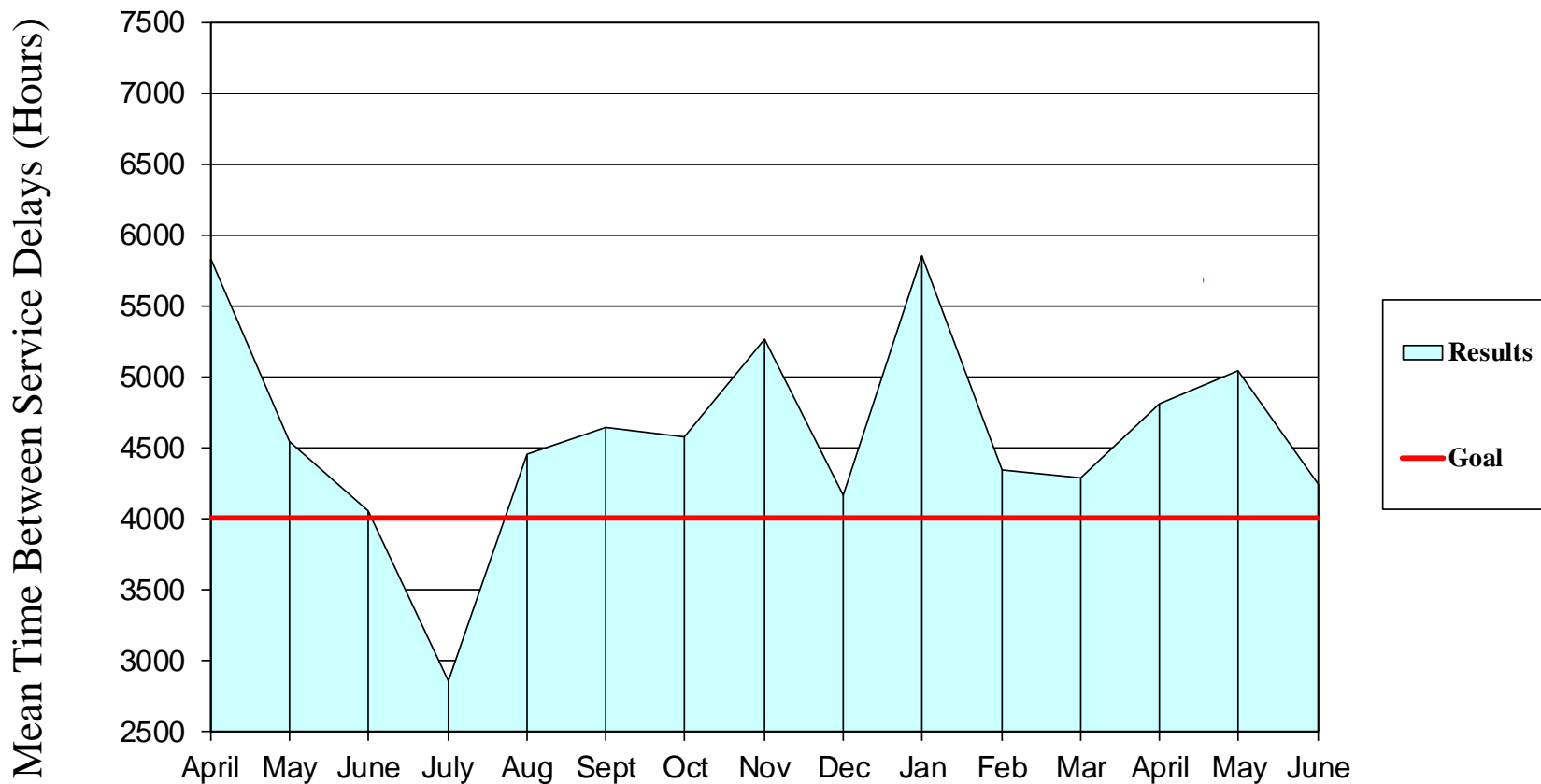
Includes Rail, Track Tie, Misalignment, Switch, Delays Per 100 Train Runs



- ✓ Goal met – Actual .01 / Goal .30
- ✓ Improved coordination between Maintenance and Operations Control Center has allowed for more work with less service impacts



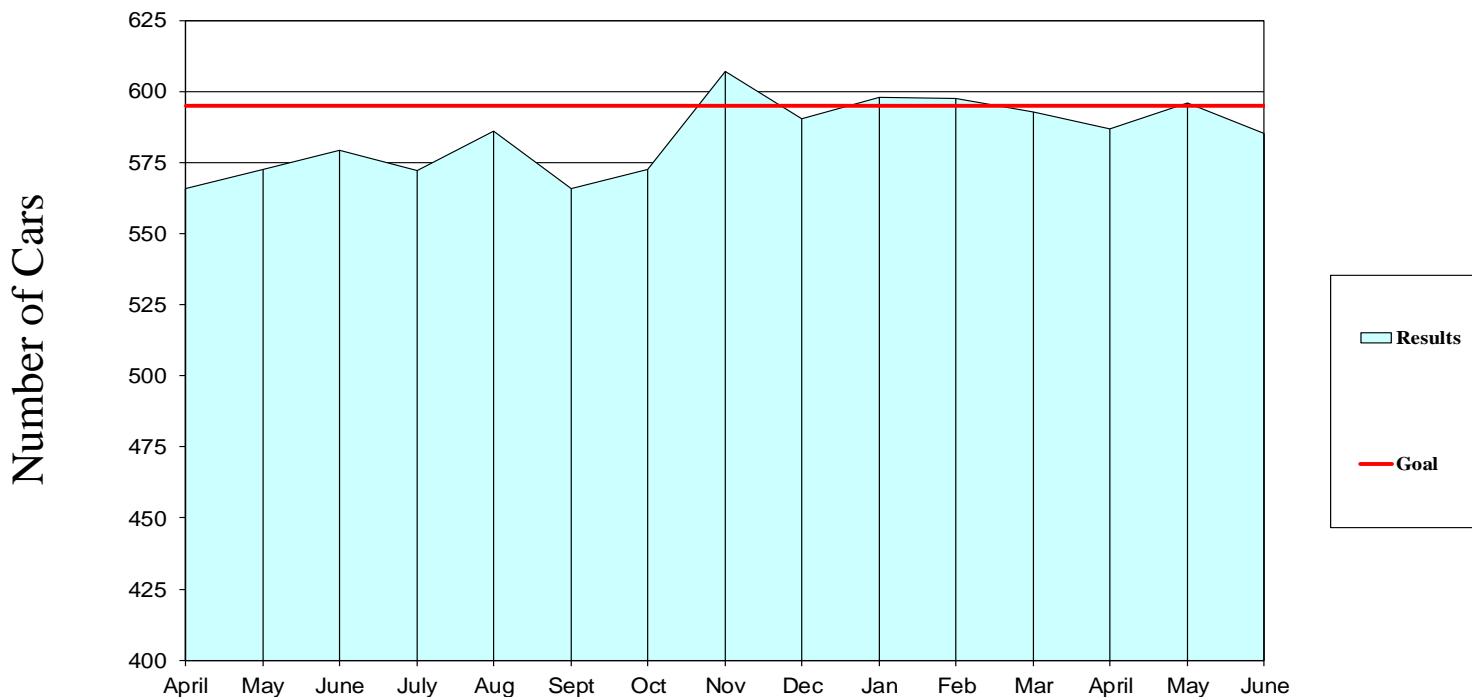
Car Equipment - Reliability



- ✓ Goal met – MTBSD 4,663 hours / Goal 4,000 hours
- ✓ June impacted by heat, causing increase in propulsion, HVAC and inverter failures



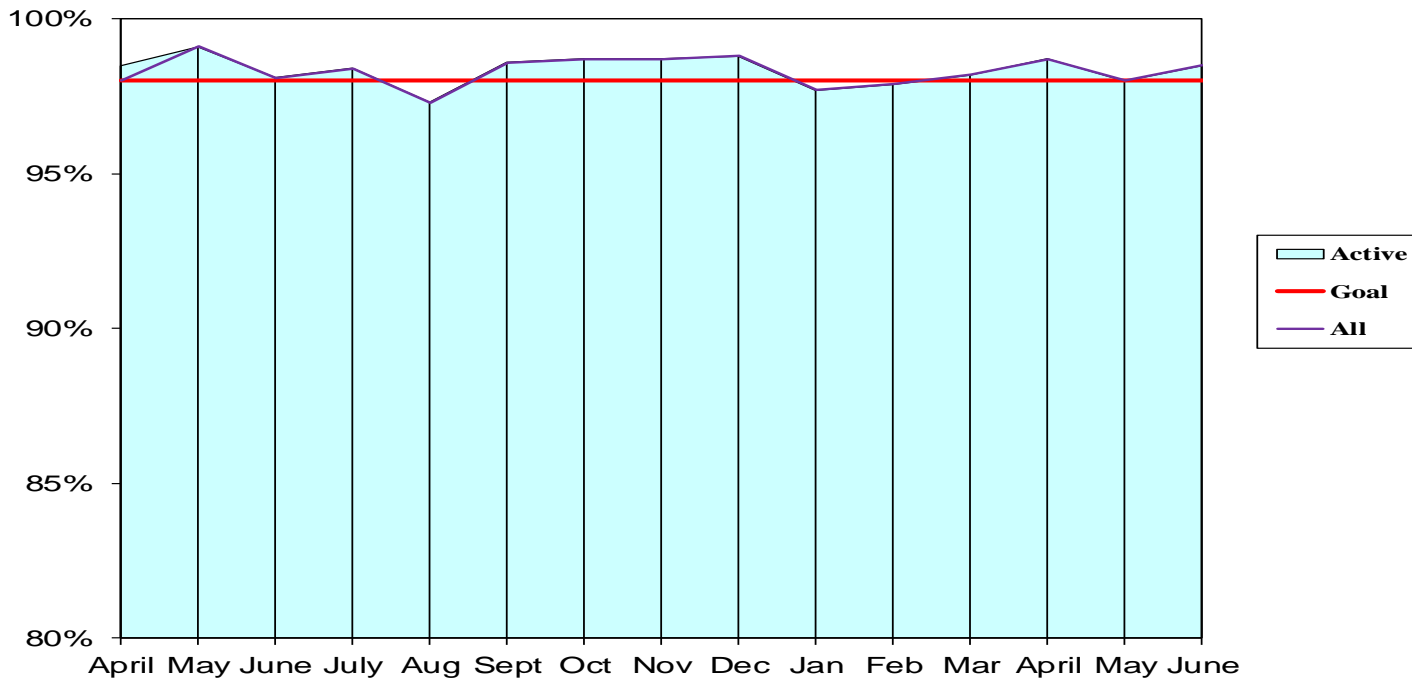
Car Equipment – Availability @ 0400 hours



- ✓ Goal not met – 589 Actual vs. 595 Required
- ✓ Hot weather impacted availability
- ✓ 6 cars in SVBX testing.



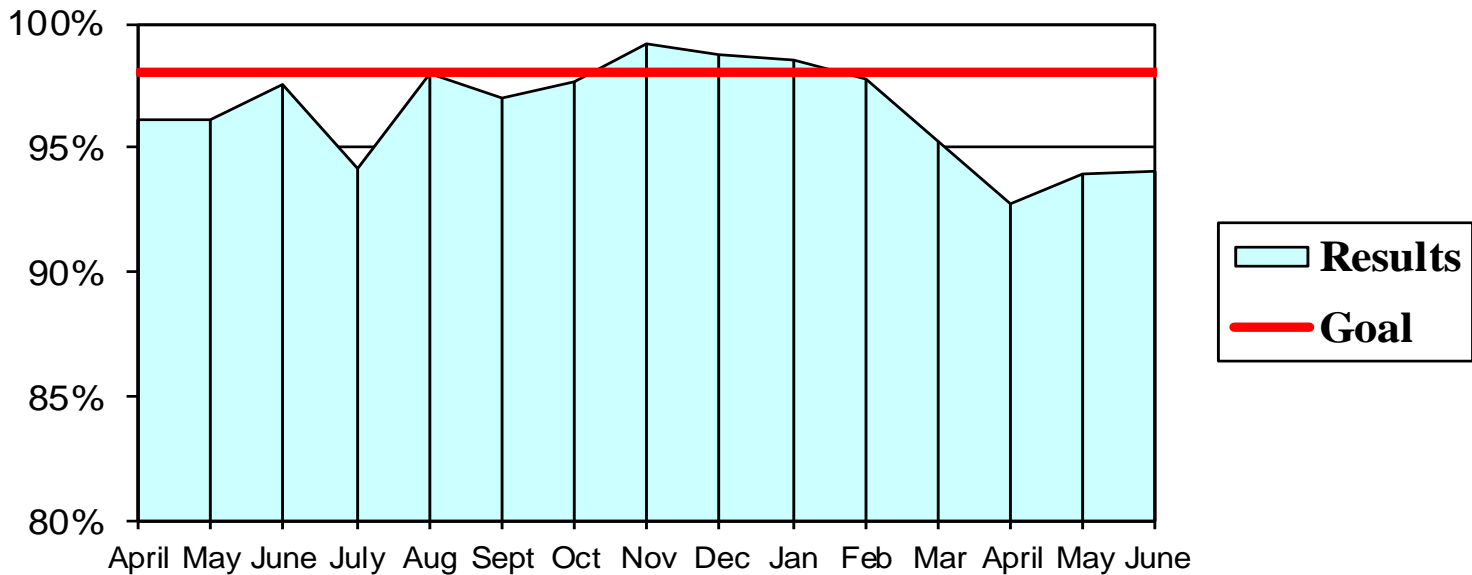
Elevator Availability - Stations



- ✓ Goal 98%. Goal met – Actual 98.4%
- ✓ Improved over last quarter



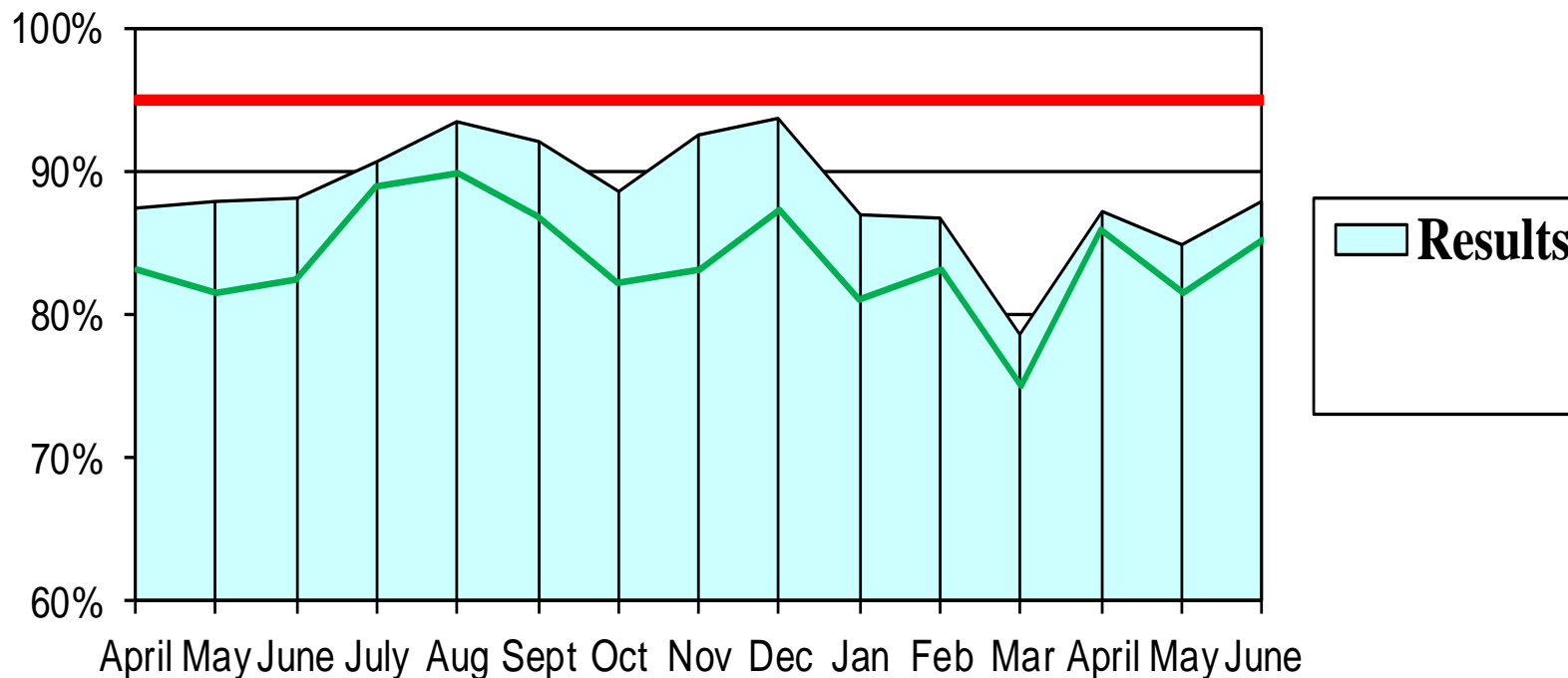
Elevator Availability - Garage



- ✓ Goal 98%. Goal not met - Actual 93.6%
- ✓ Decline from last quarter due to:
 - Four different garage elevators suffered electronic malfunctions, plus one vandalism and one motor failure
 - Station elevator repair a higher priority than garage elevators



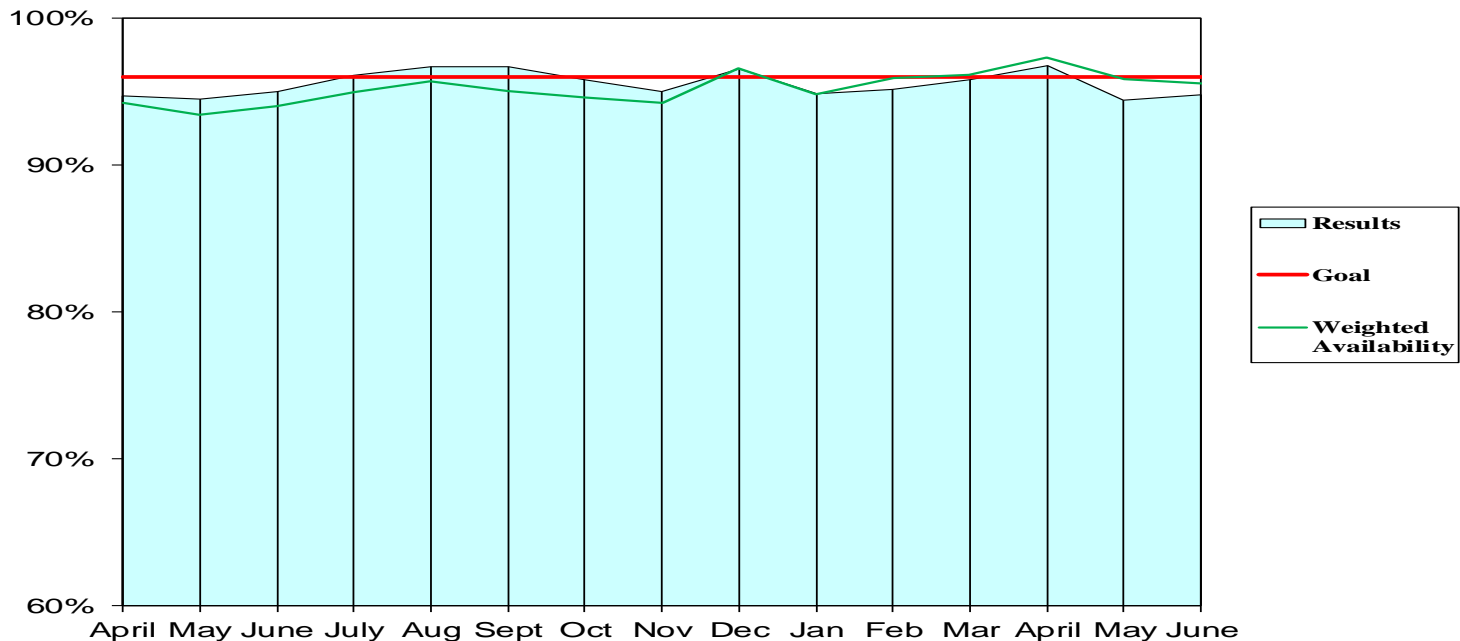
Escalator Availability - Street



- ✓ Goal 95%. Goal not met - Actual 86.7%
- ✓ Improved by 2.5% over last quarter
- ✓ Four Street Escalator chain jobs – Two at Civic Center, one each at Embarcadero and 19th Street



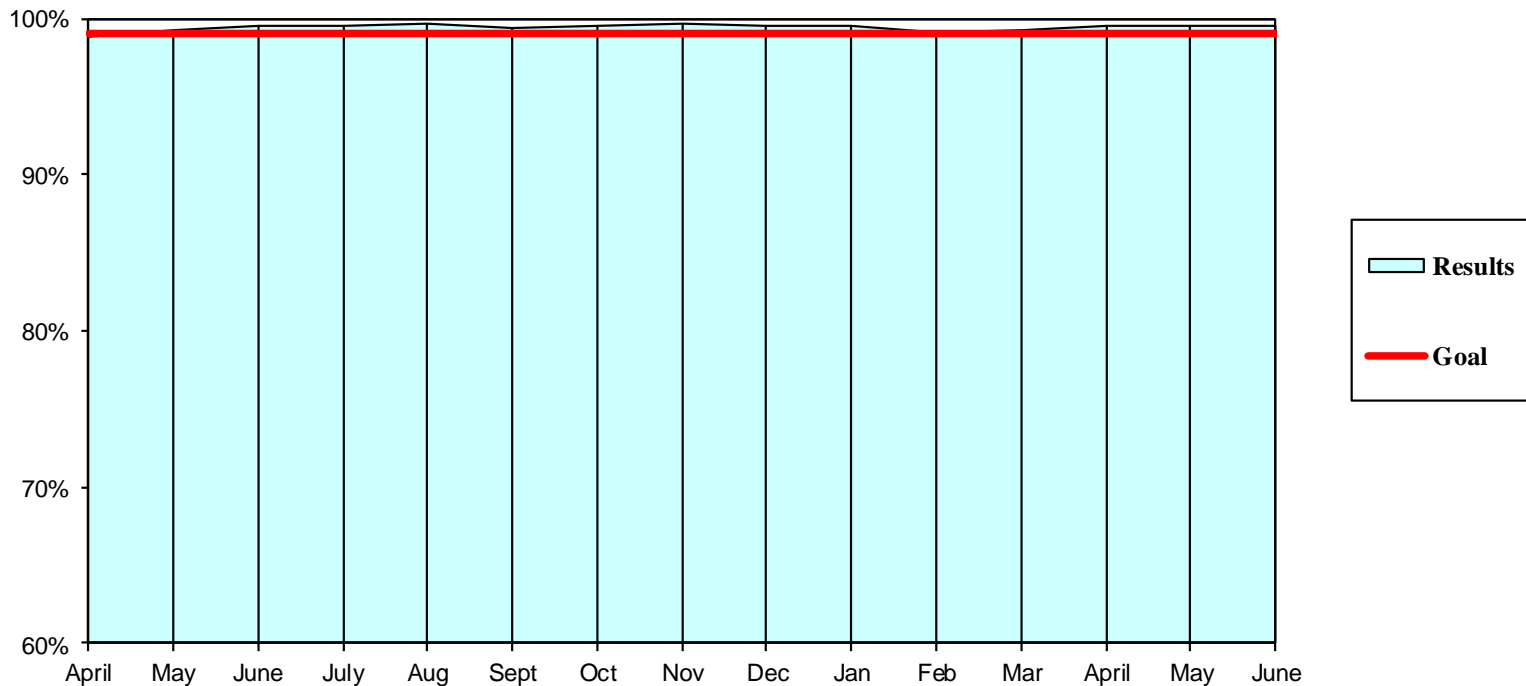
Escalator Availability - Platform



- ✓ Goal 96%. Goal not met - Actual 95.33%
- ✓ Slight improvement over last quarter
- ✓ Three Fujitec Escalator chain replacements.
- ✓ Fujitec Escalator material deficiency and our first Fujitec chain replacement (learning curve) resulted in excessive OOS time.



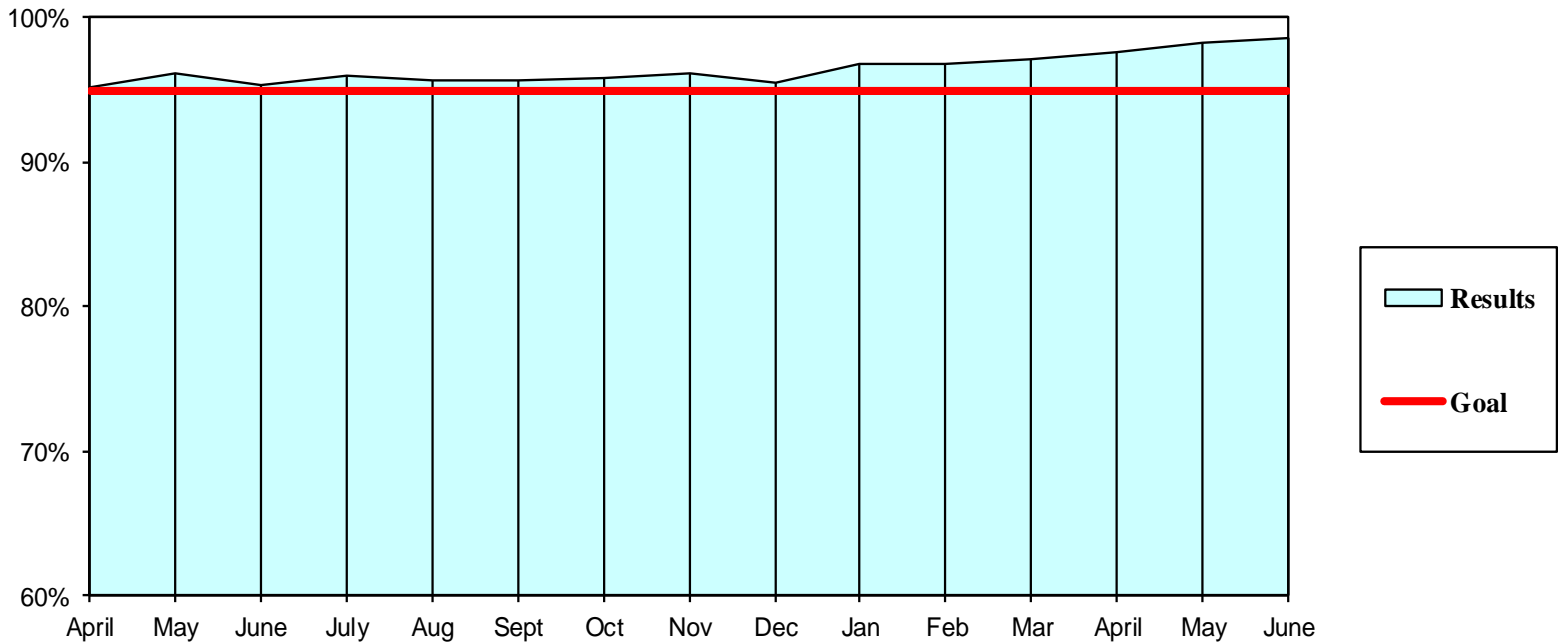
AFC Gate Availability



- ✓ Goal met - Actual 99.6% / Goal 99.0%
- ✓ Early “bugs” from Asset Refresh Project have been resolved



AFC Vendor Availability

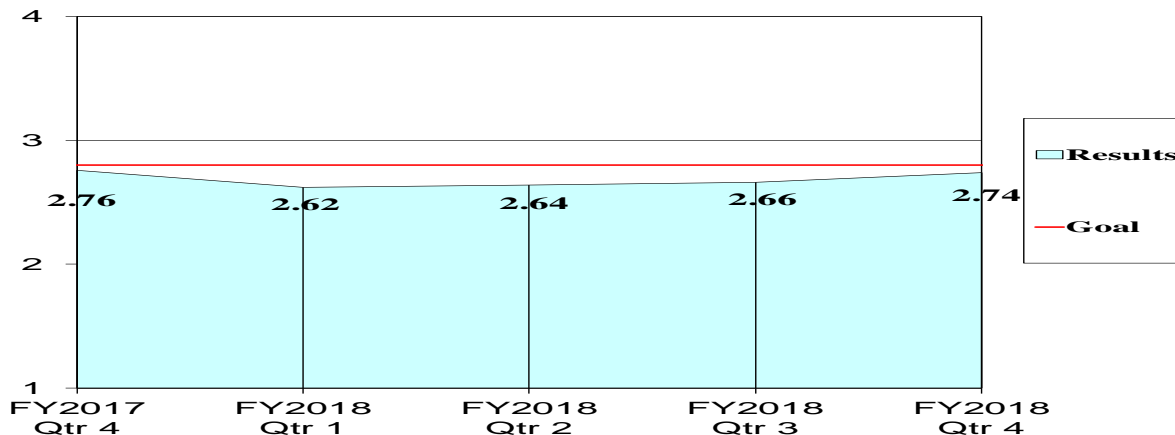


- ✓ Goal met - Actual 98.2% / Goal 95.0%
- ✓ Parking Validation Machines Availability – 98.7%
- ✓ Maintenance & Engineering have worked to enhance real time remote visibility of failure data to enable faster response times
- ✓ Improved data collection system allowing for earlier identification of systemic issues



Environment - Outside Stations

Ratings guide:
 4 = Excellent
 3 = Good
 2.80 = Goal
 2 = Only Fair
 1 = Poor



Composite rating of:	
Walkways & Entry Plaza Cleanliness (50%)	2.62↑
BART Parking Lot Cleanliness (25%)	2.96↑
Appearance of BART Landscaping (25%)	2.77↑

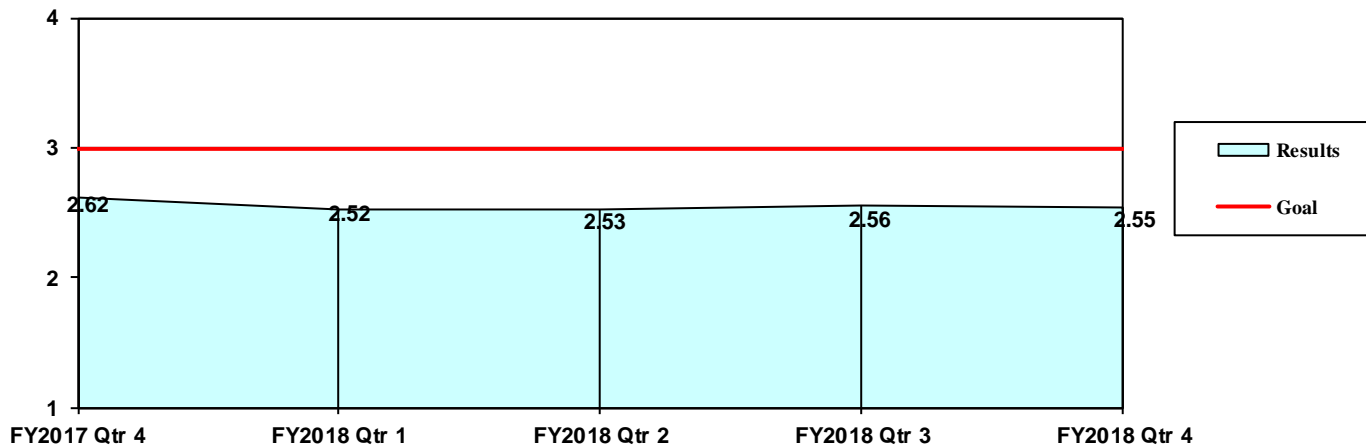
- ✓ Goal not met, rating improved, highest in a year
- ✓ Cleanliness ratings of either Excellent or Good:
 - Walkways/Entry Plazas: 59.8%
 - Parking Lots: 74.2%
 - Landscaping Appearance: 67.0%

↑ indicates a statistically significant increase from the prior quarter



Environment - Inside Stations

Ratings guide:
 4 = Excellent
 3 = Good
 3.00 = Goal
 2 = Only Fair
 1 = Poor

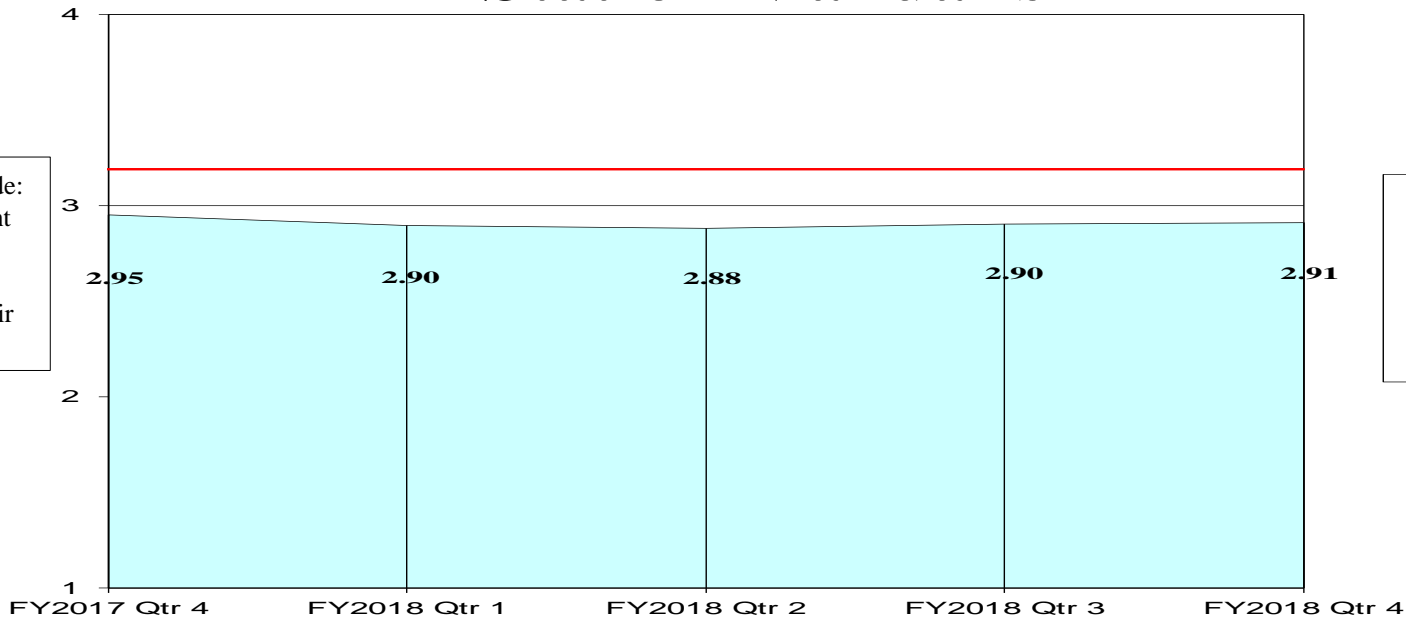


Composite rating for Cleanliness of:	
Station Platform (60%)	2.68
Other Station Areas (20%)	2.52
Restrooms (10%)	2.08
Elevator Cleanliness (10%)	2.27

- ✓ Goal not met but progress continues, particularly in addressing “hot spots”
- ✓ Cleanliness ratings of either Excellent or Good:
 - Station Platform: 63.3%; Other Station Areas: 54.5%
 - Restrooms: 35.2% Elevators: 42.8%

Station Vandalism

Ratings guide:
 4 = Excellent
 3.19 = Goal
 3 = Good
 2 = Only Fair
 1 = Poor

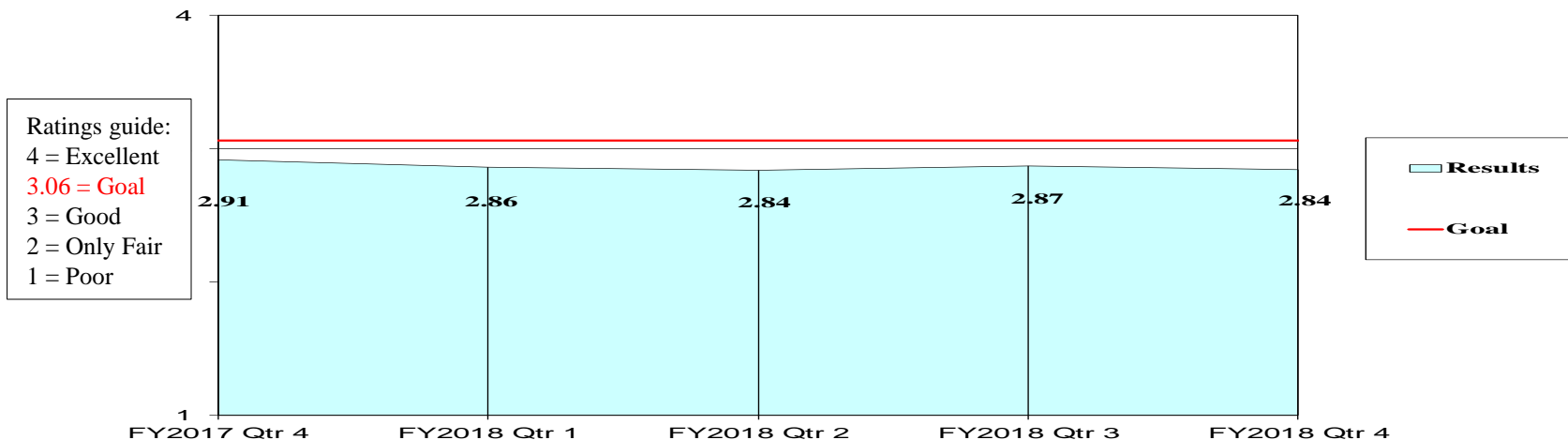


Station Kept Free of Graffiti

- ✓ Goal not met, slight improvement
- ✓ 74.2% of those surveyed ranked this category as either Excellent or Good



Station Services



Ratings guide:
 4 = Excellent
 3.06 = Goal
 3 = Good
 2 = Only Fair
 1 = Poor

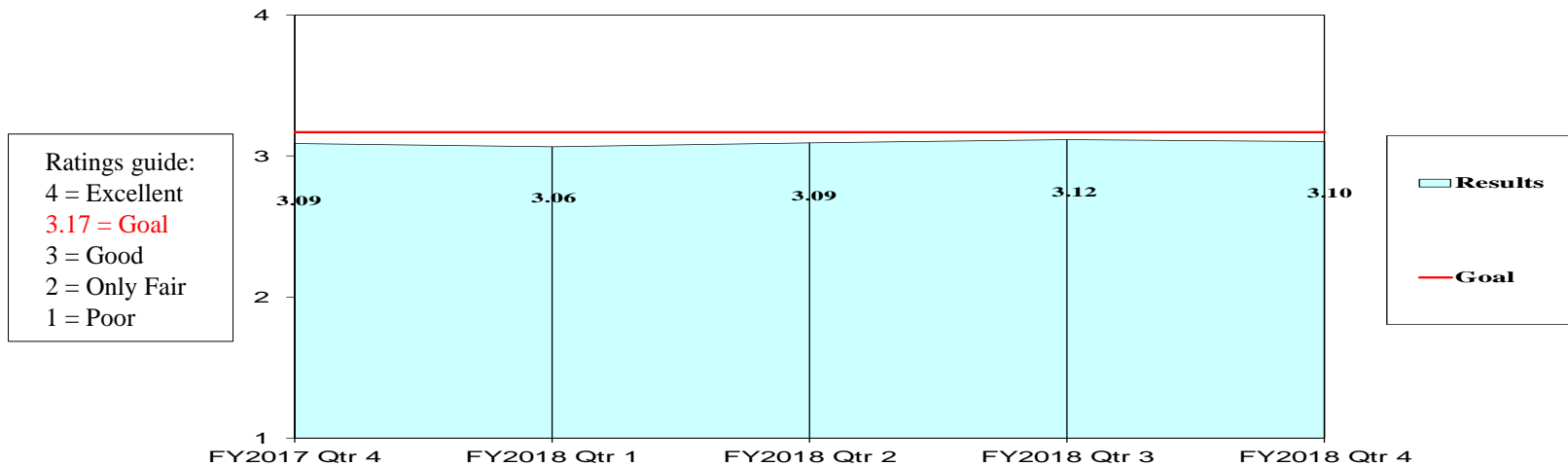
Results
 Goal

Composite rating of:	
Station Agent Availability (65%)	2.82
Brochures Availability (35%)	2.88

- ✓ Goal not met
- ✓ Availability ratings of either Excellent or Good:
 - Station Agents: 68.6%
 - Brochures: 72.5%



Train P.A. Announcements



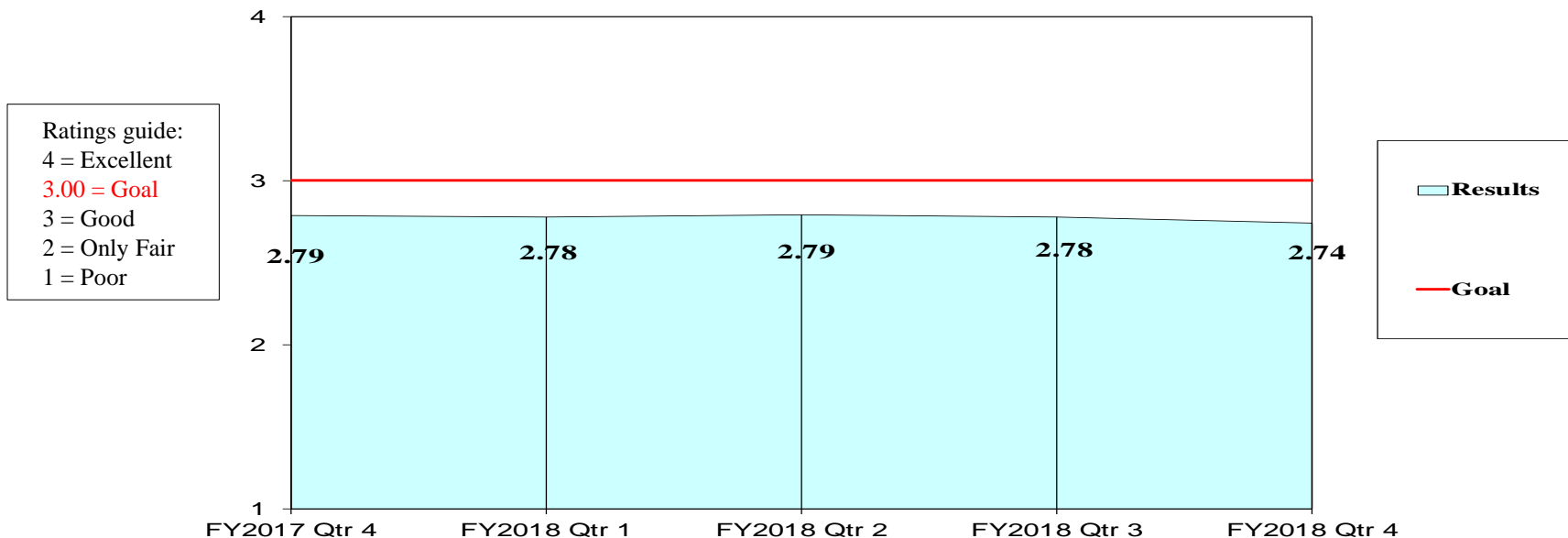
Ratings guide:
 4 = Excellent
 3.17 = Goal
 3 = Good
 2 = Only Fair
 1 = Poor

Composite rating of:	
P.A. Arrival Announcements (33%)	3.08
P.A. Transfer Announcements (33%)	3.04
P.A. Destination Announcements (33%)	3.19

- ✓ Goal not met
- ✓ Announcement ratings of either Excellent or Good:
 - Arrivals: 79.0%
 - Transfers: 78.0%
 - Destinations: 83.0%



Train Exterior Appearance

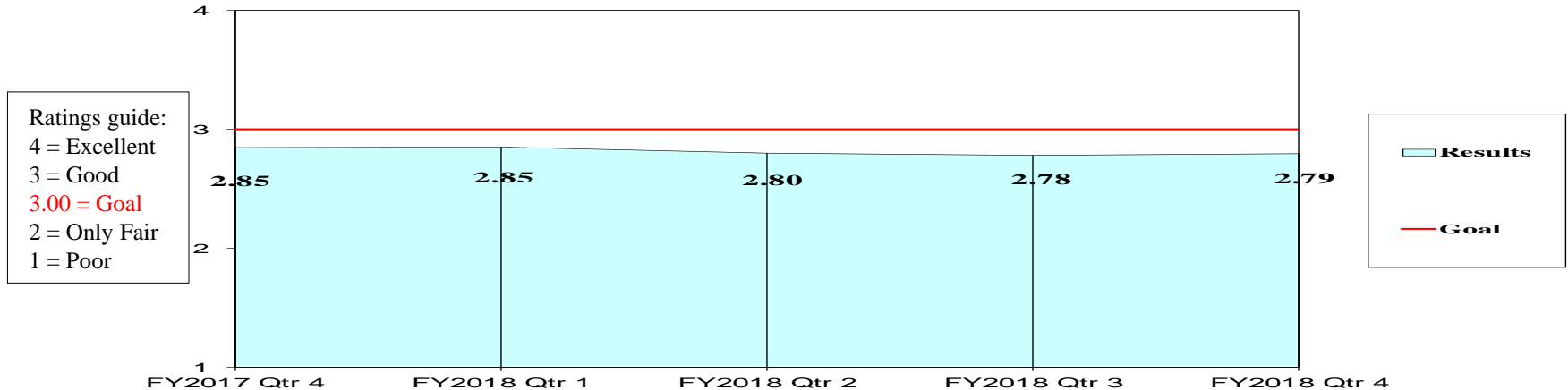


✓ Goal not met

✓ 67.2% of those surveyed ranked this category as either Excellent or Good



Train Interior Cleanliness



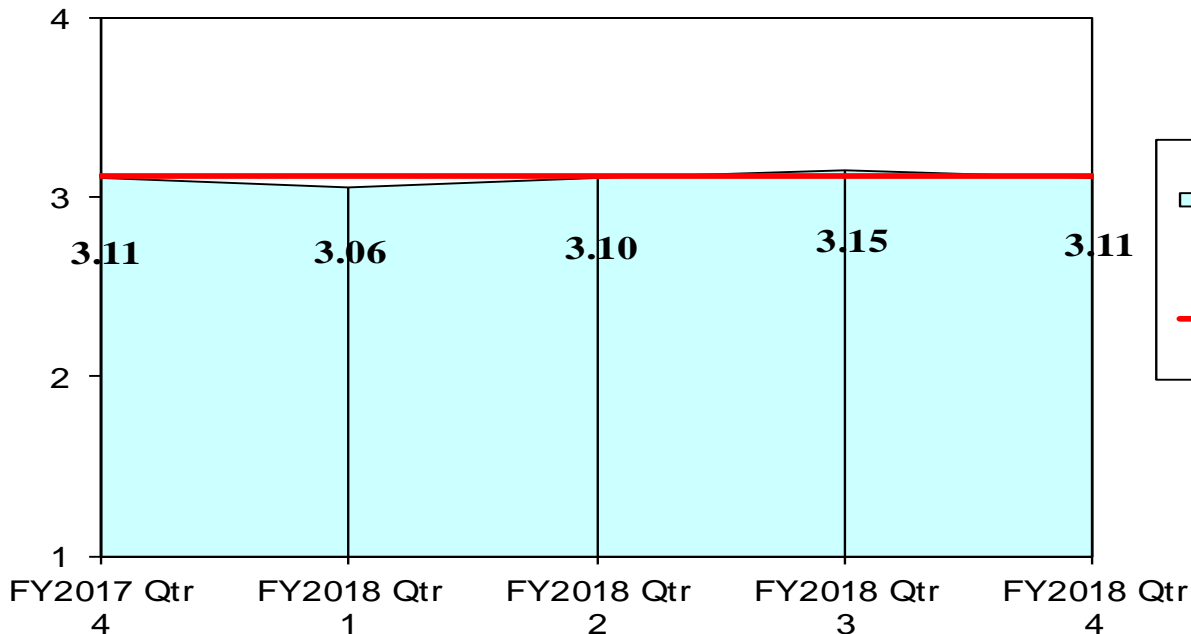
Composite rating of:	
Train interior cleanliness (60%)	2.51
Train interior kept free of graffiti (40%)	3.22

- ✓ Goal not met but slight improvement in FY18 Q1
- ✓ Reallocated resources from mid-line window washing pilot to providing a rapid response to customer reports of bio-hazards
- ✓ Train Interior ratings of either Excellent or Good:
 - Train Interior Cleanliness: 53.5%; Graffiti-free: 87.1%



Train Temperature

Ratings guide:
 4 = Excellent
 3.12 = Goal
 3 = Good
 2 = Only Fair
 1 = Poor



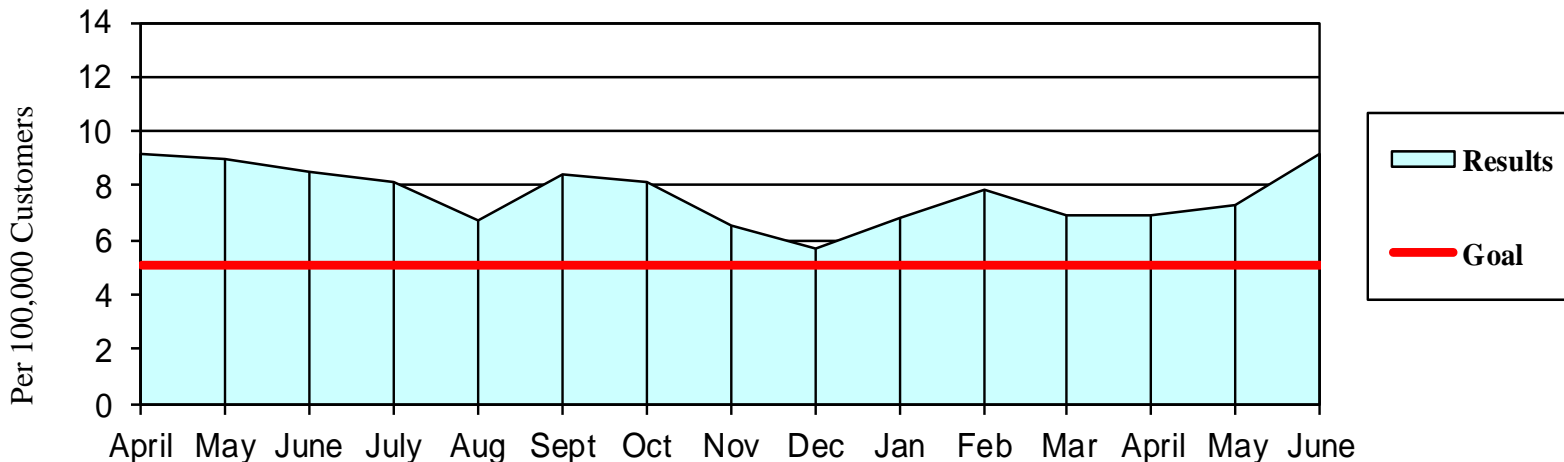
Comfortable Temperature Onboard Train

- ✓ Goal not met
- ✓ 82.9 % of those surveyed rated this category as either Excellent or Good



Customer Complaints

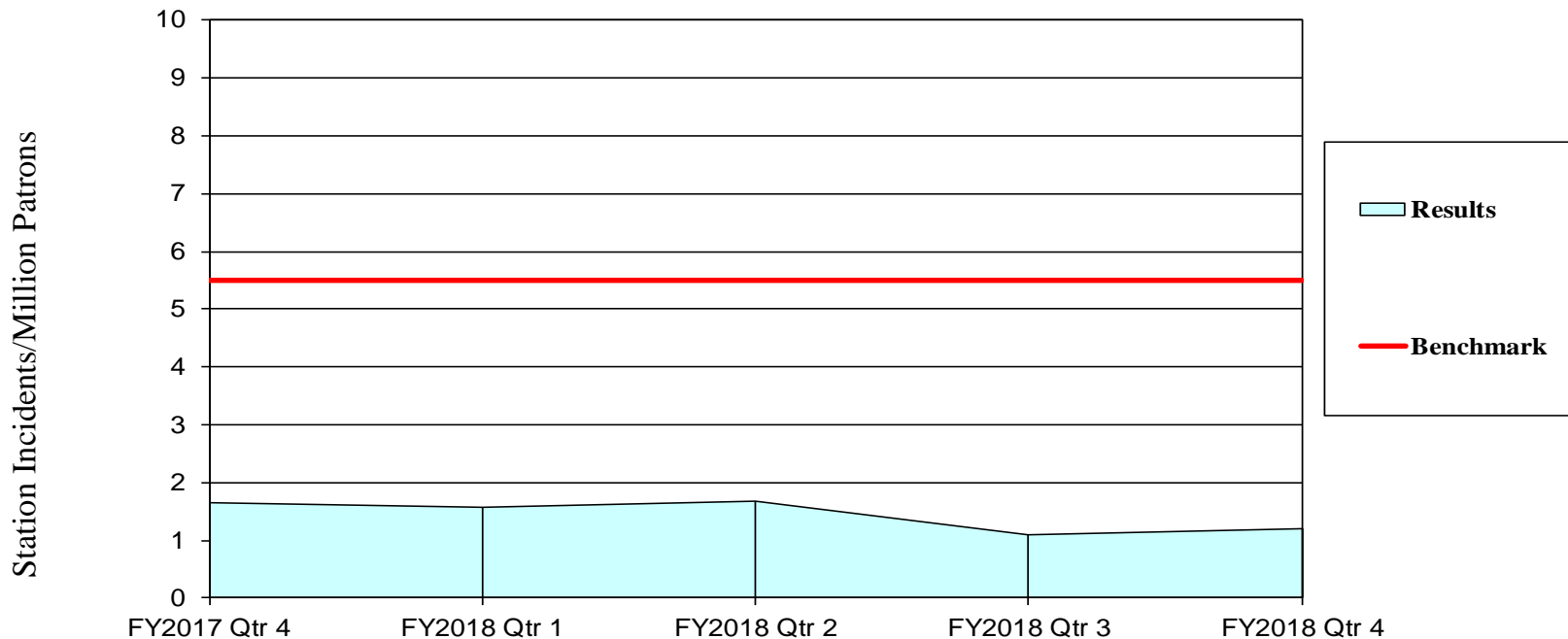
Complaints Per 100,000 Customers



- ✓ Total complaints increased 318 (15.3%) from last quarter, but **decreased** 367 (13.3%) compared with fourth quarter FY17
- ✓ With the notable exceptions of **Station Cleanliness, Quality of Life** and **Policies**; complaints increased in all categories
- ✓ Complaints about Service Delays (a sub-category of “Service”) were also substantially lower this quarter
- ✓ “Compliments” number 137, up from 109 last quarter and 127 a year ago

Patron Safety:

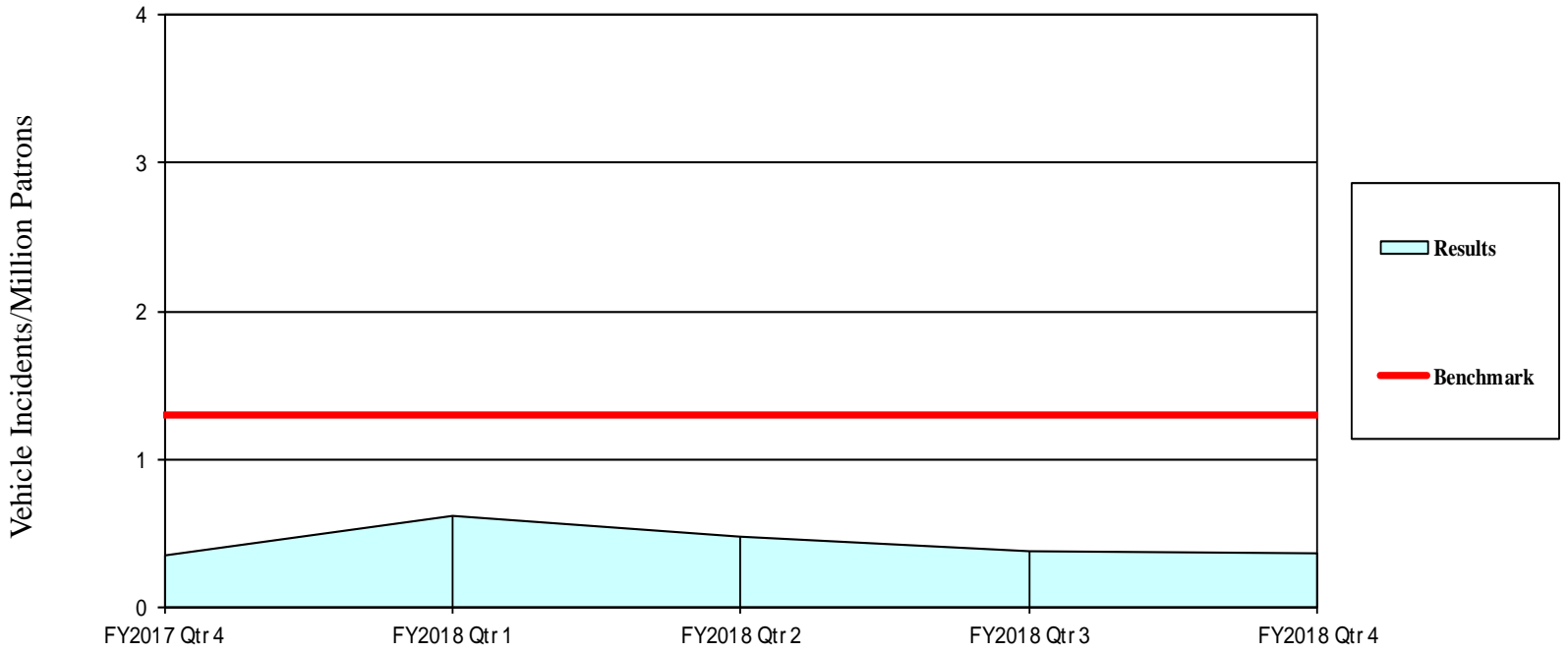
Station Incidents per Million Patrons



✓ Goal met

Patron Safety

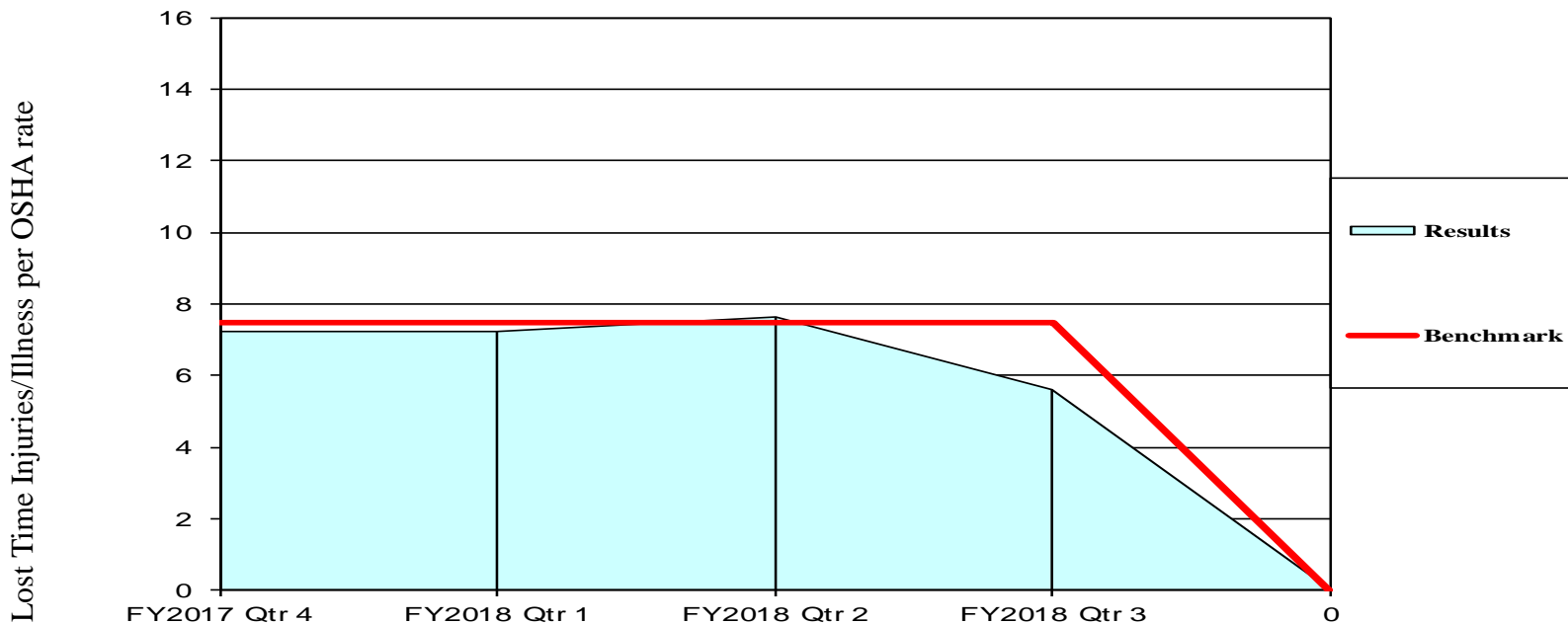
Vehicle Incidents per Million Patrons



✓ Goal met

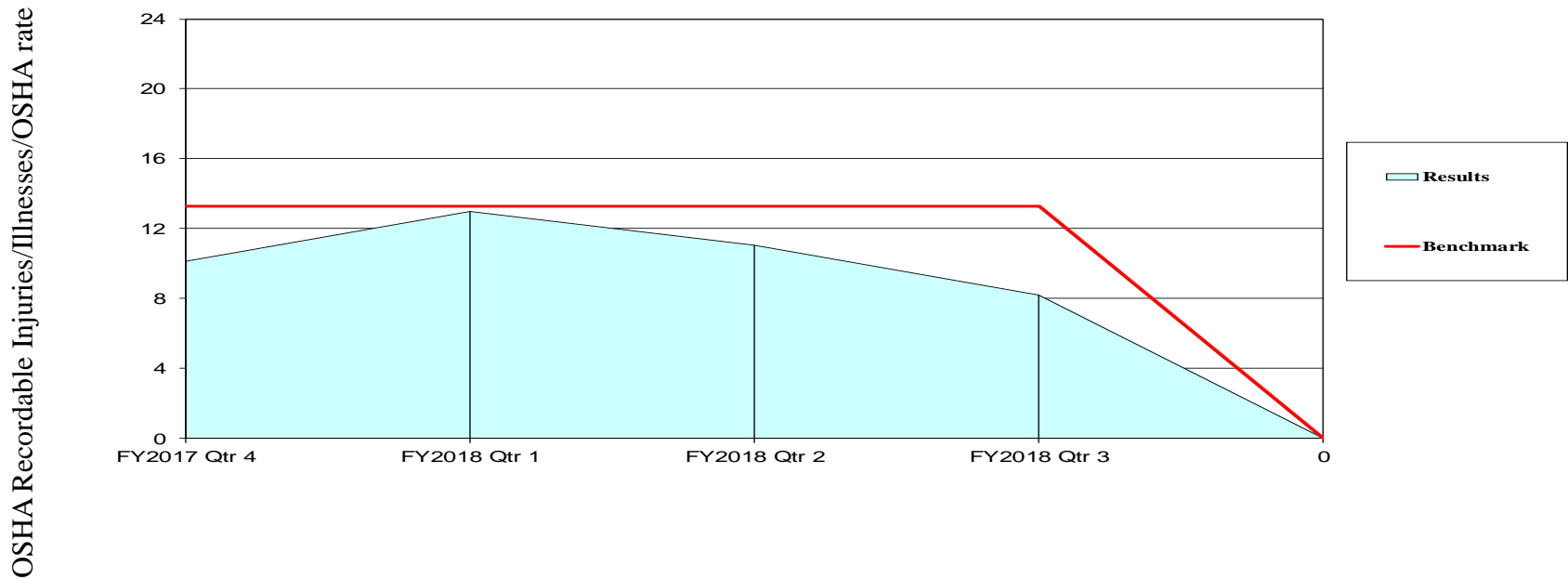


Employee Safety: Lost Time Injuries/Illnesses per OSHA Incidence Rate



Data not available for Q4

Employee Safety: OSHA-Recordable Injuries/Illnesses per OSHA Incidence Rate

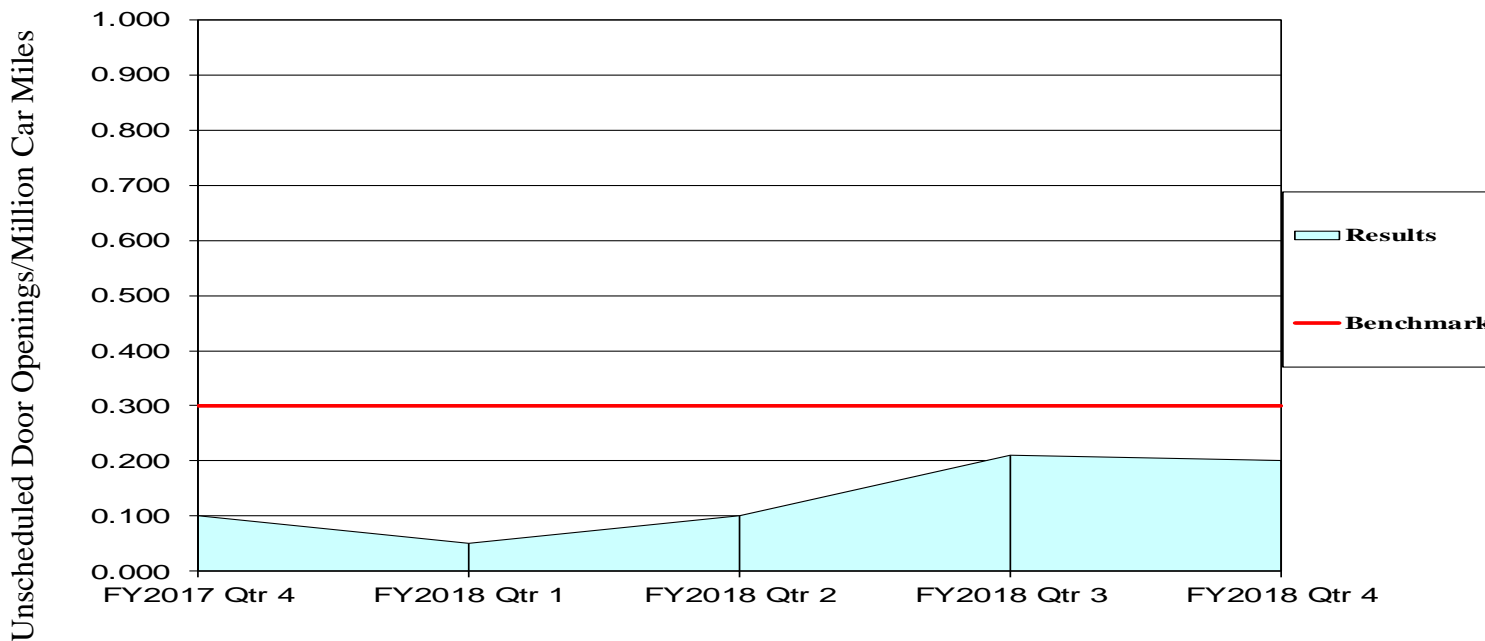


Data not available for Q4



Operating Safety:

Unscheduled Door Openings per Million Car Miles

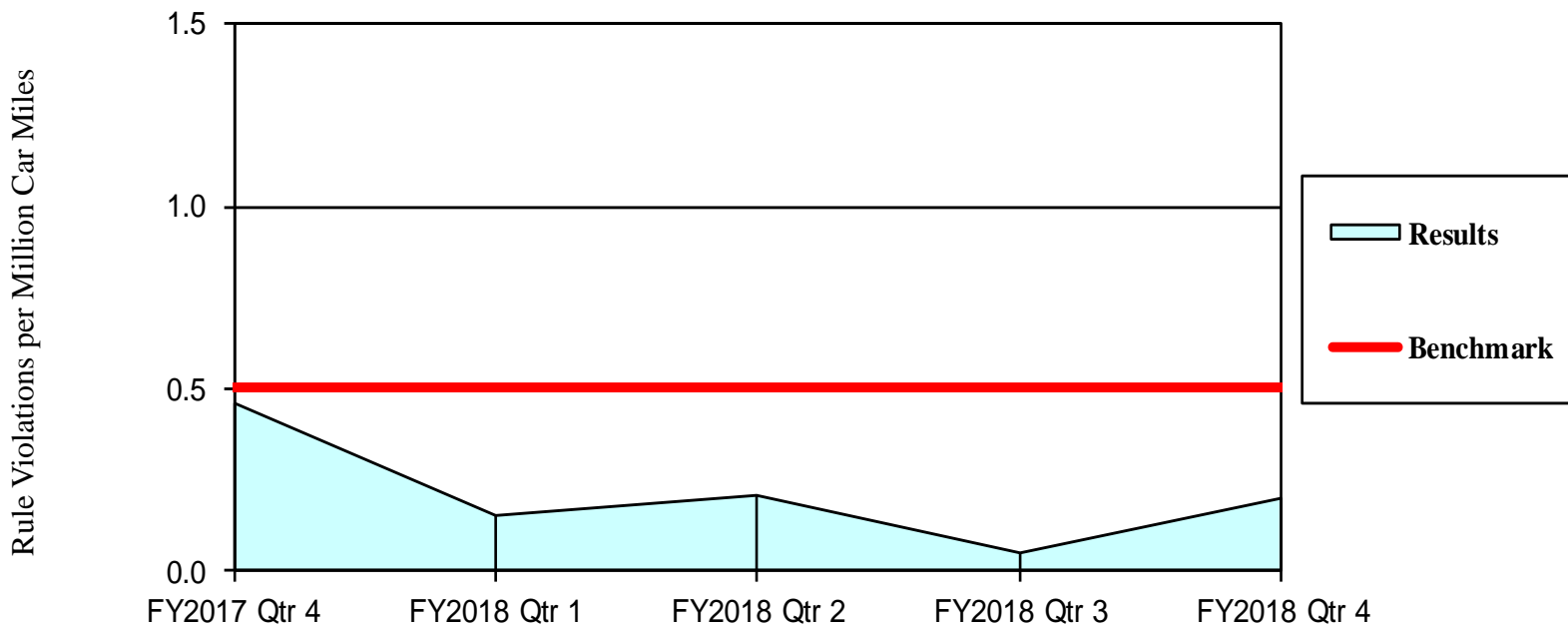


✓ Goal met



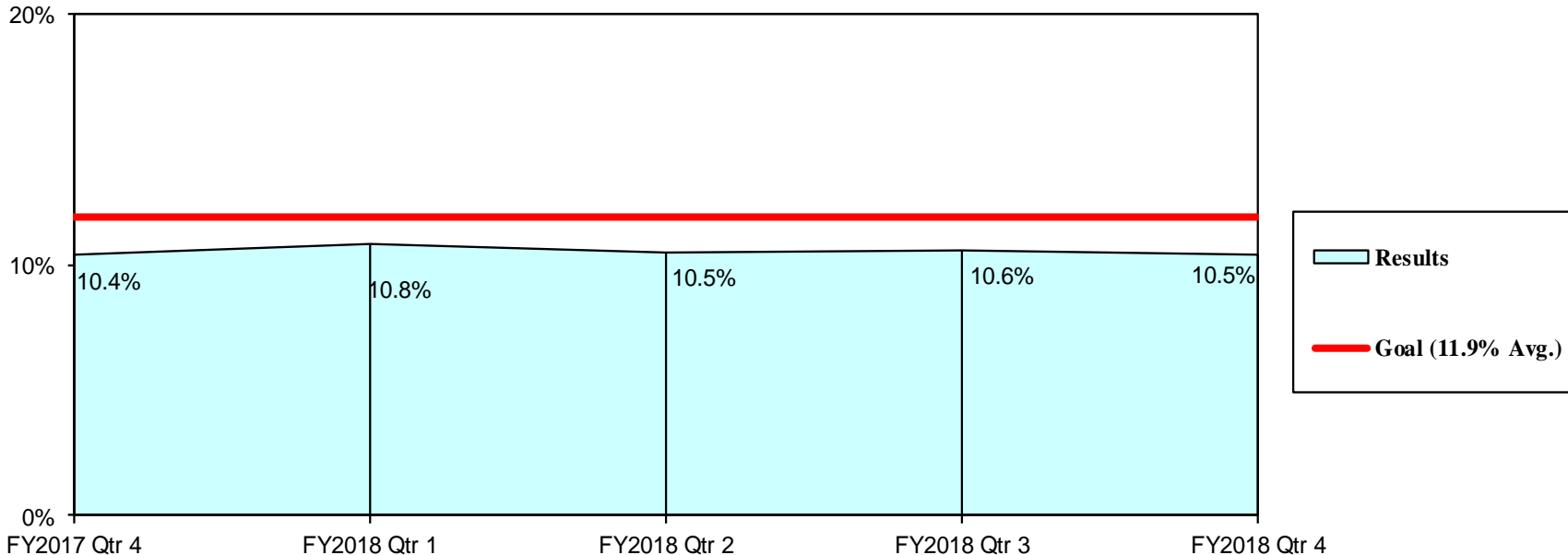
Operating Safety:

Rule Violations per Million Car Miles



✓ Goal met

BART Police Presence

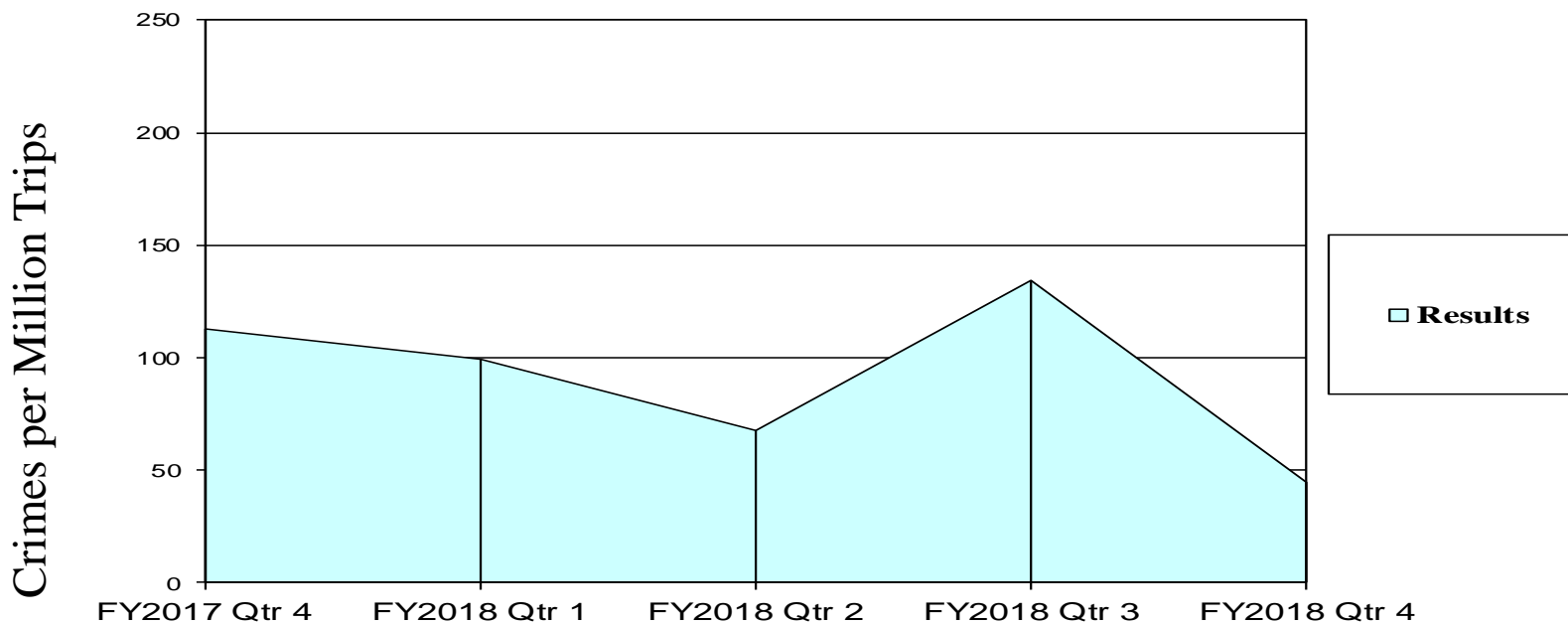


✓ Goal not met

Police seen on train	5.4%
Police seen outside the station	14.6%
Police seen in the station	11.0%
Police seen on train after 7:00PM	3.3%
Police seen outside the station after 7:00PM	15.7%
Police seen in the station after 7:00PM	13.9%



Quality of Life*



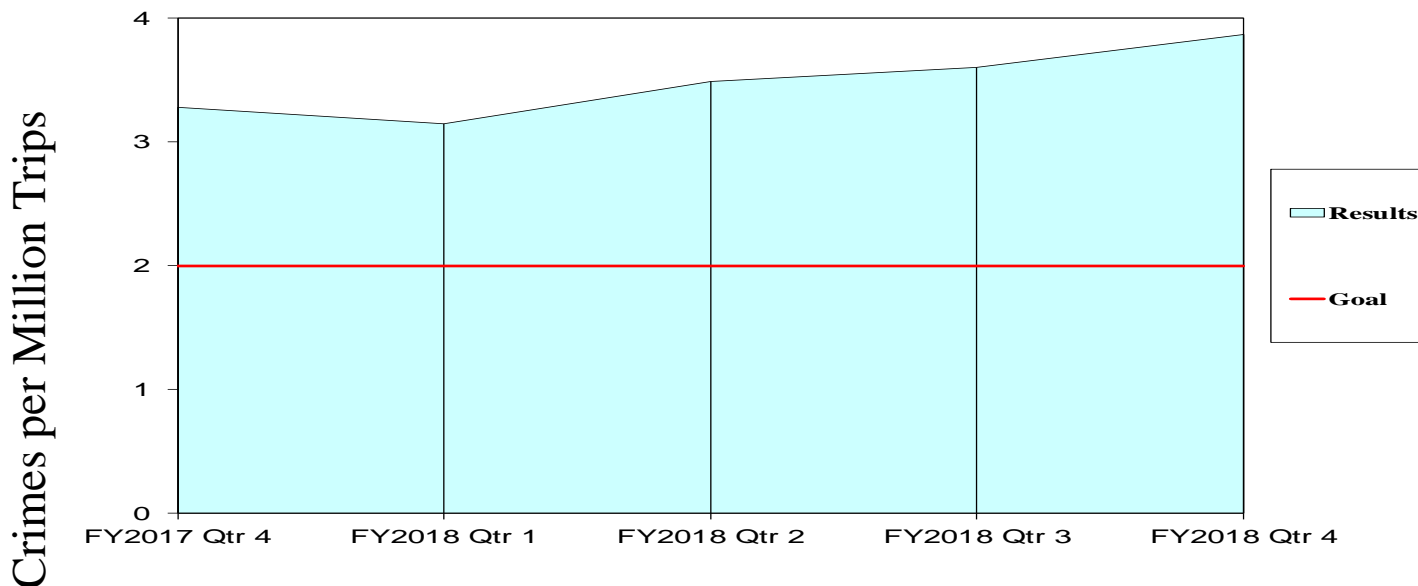
- ✓ Quality of Life incidents are down from the last quarter and from the corresponding quarter of the prior fiscal year.

*Quality of Life Violations include: Disturbing the Peace, Vagrancy, Public Urination, Fare Evasion, Loud Music/Radios, Smoking, Eating/Drinking and Expectoration



Crimes Against Persons

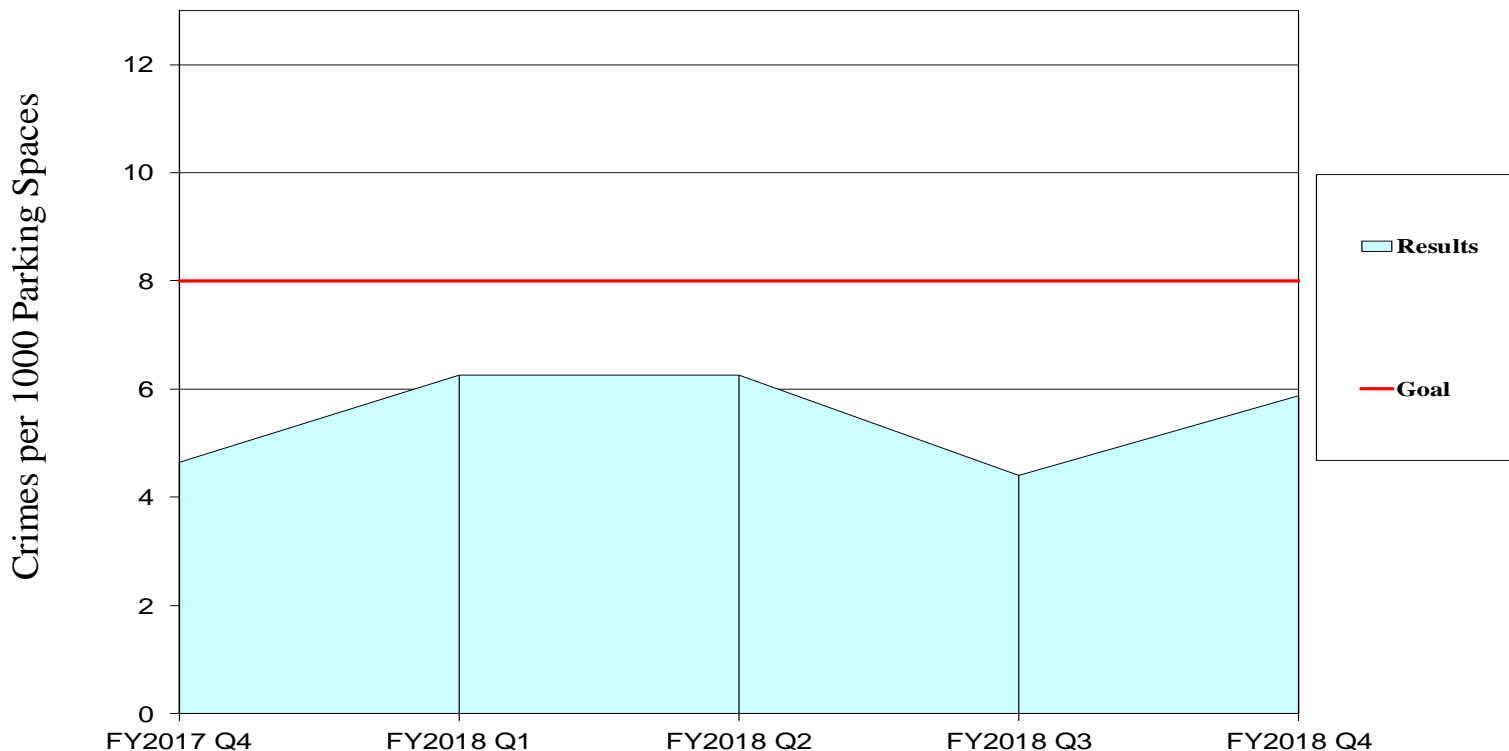
(Homicide, Rape, Robbery, and Aggravated Assault)



- ✓ Goal not met
- ✓ Crimes against persons are up from the last quarter and up from the corresponding quarter of the prior fiscal year.



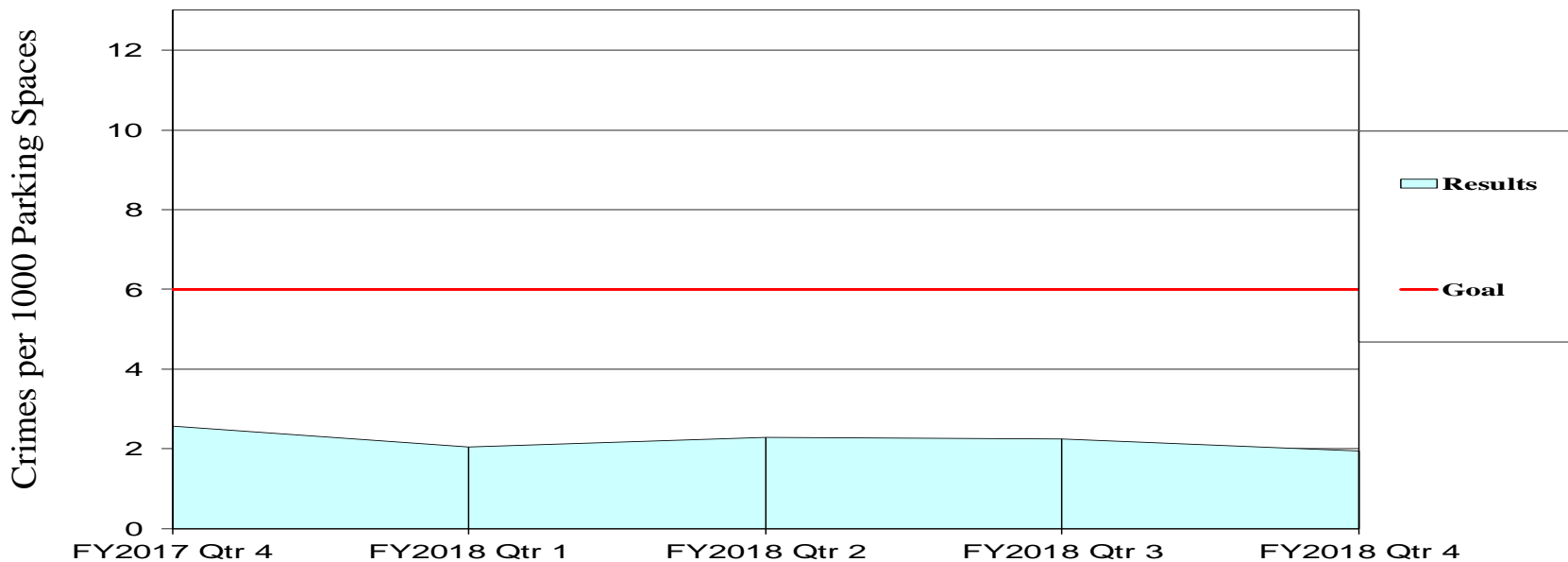
Auto Burglary



- ✓ Goal met
- ✓ The number of incidents per thousand parking spaces are up from last quarter and up from the corresponding quarter of the prior fiscal year.



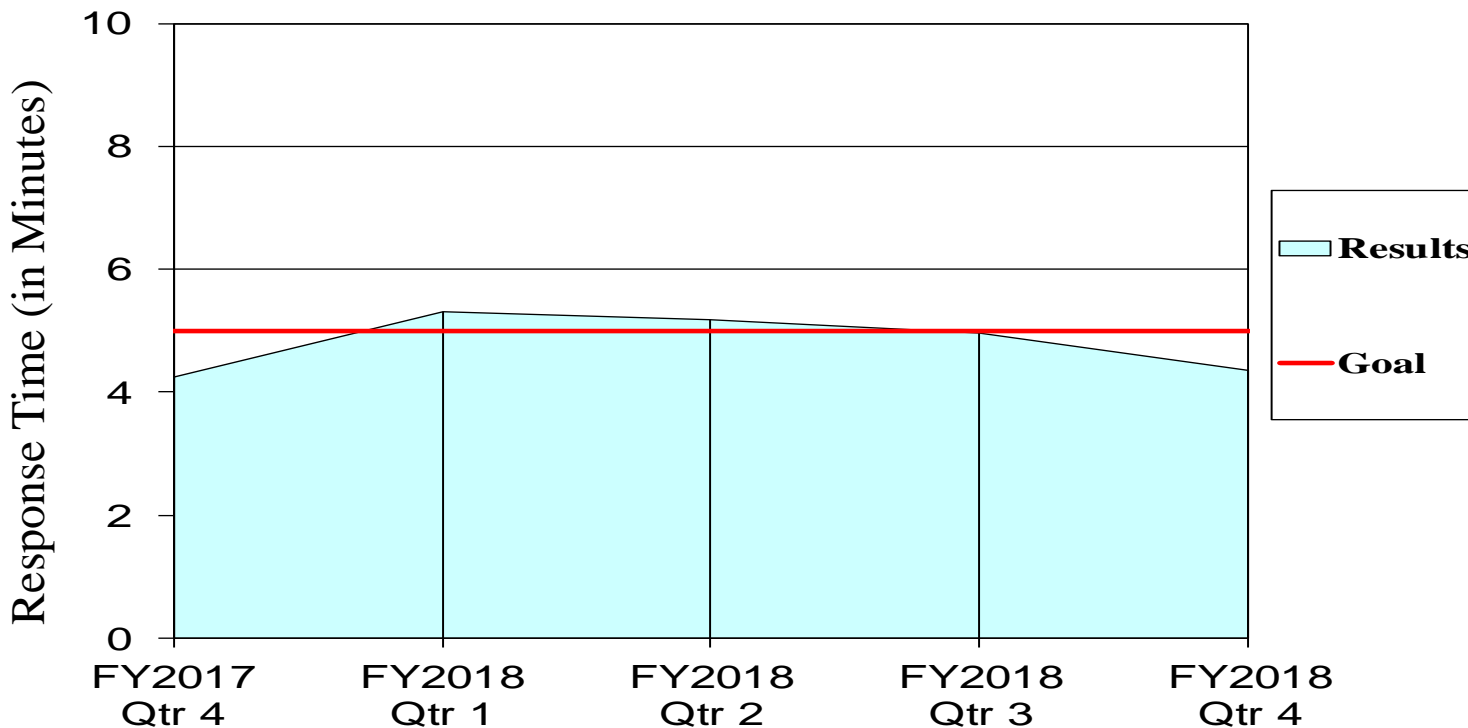
Auto Theft



- ✓ Goal met
- ✓ The number of incidents per thousand parking spaces are down from last quarter and down from the corresponding quarter of the prior fiscal year.



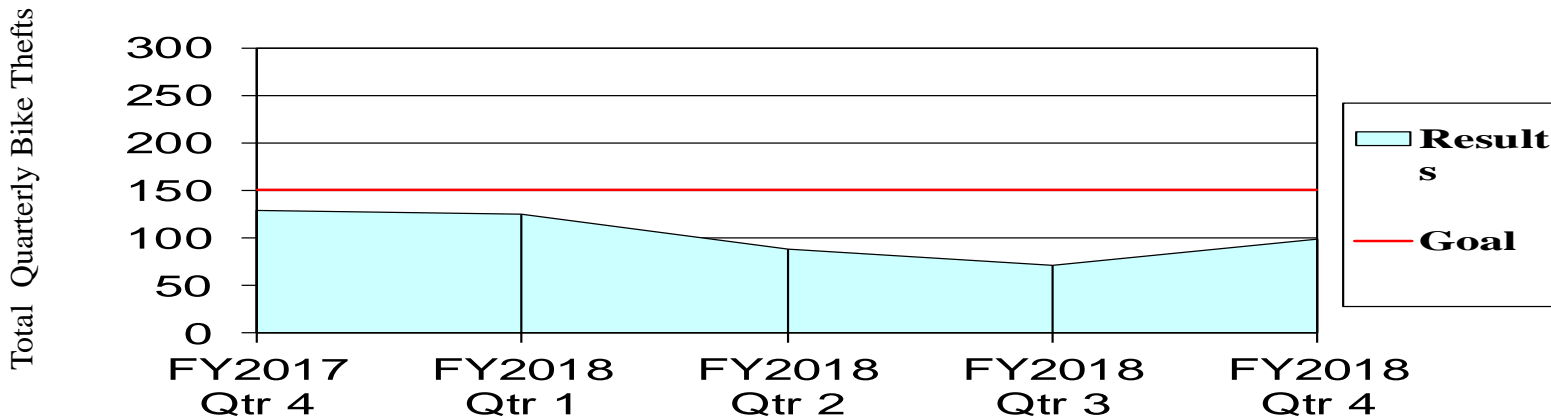
Average Emergency Response Time



- ✓ Goal met
- ✓ The average Emergency Response Time was better than the prior quarter but slightly up from the corresponding quarter of the prior fiscal year.



Bike Theft



- ✓ Goal met
- ✓ 99 bike thefts for current quarter, up 11 from last quarter.