

METRO RAIL PERFORMANCE

April 2016

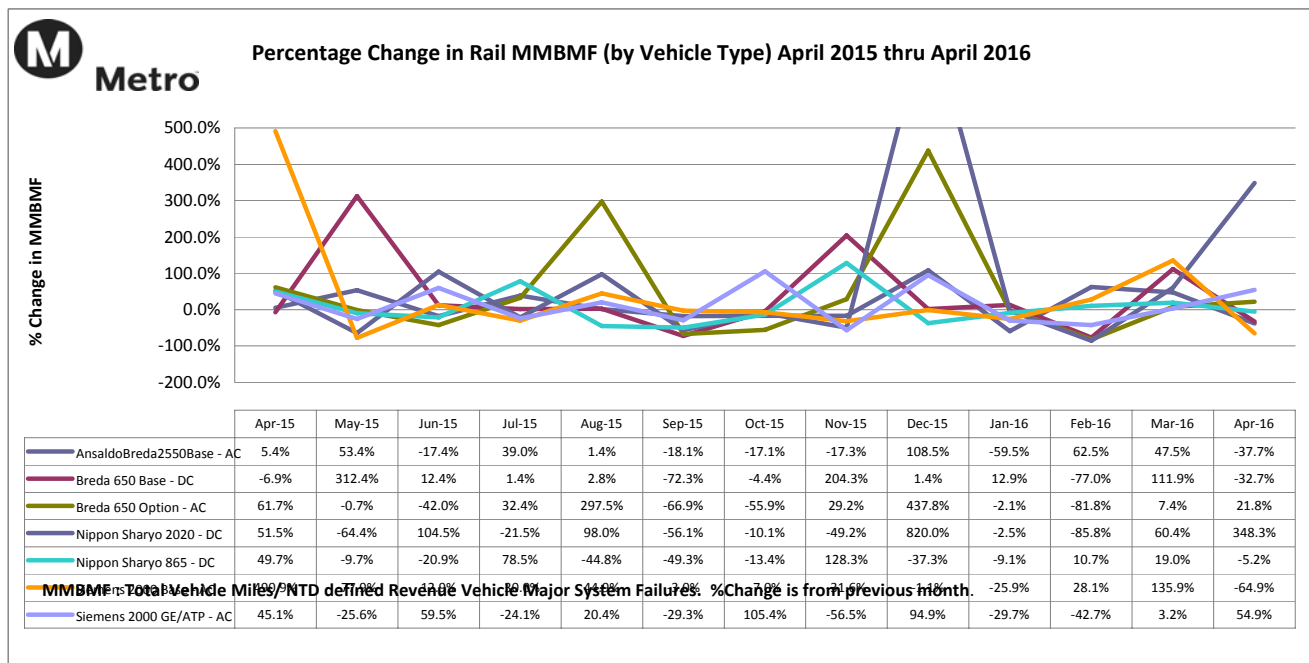
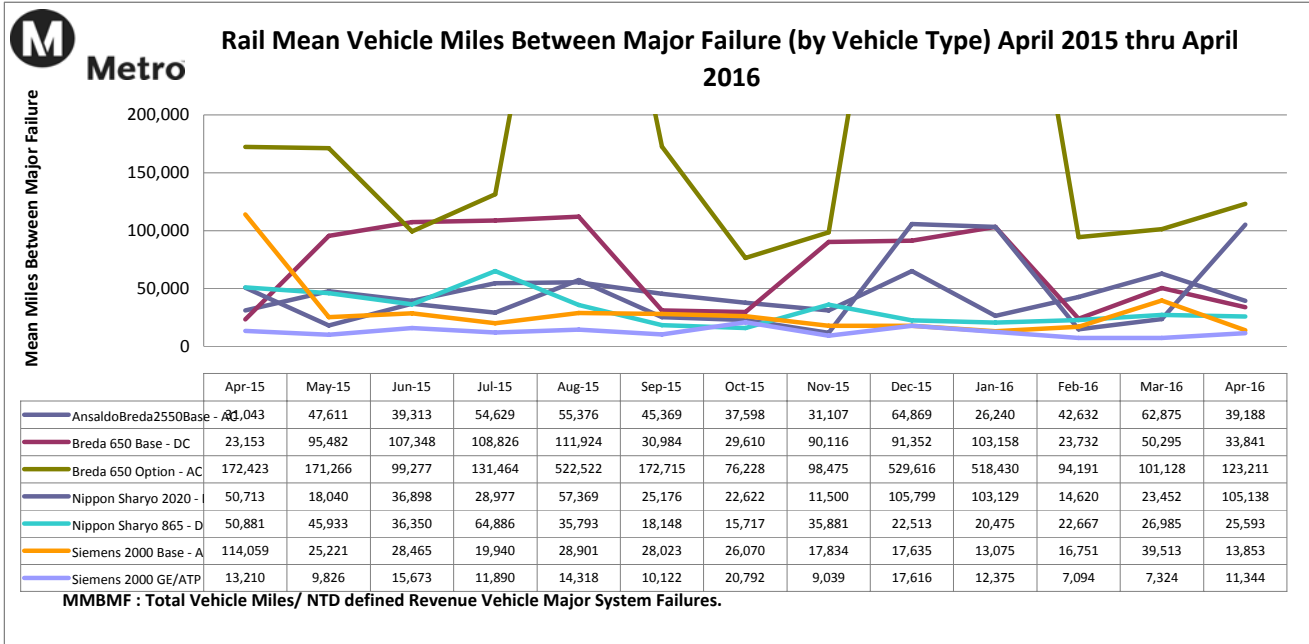


METRO RAIL PERFORMANCE – APRIL 2016

Contents	Page
Systemwide Performance	
Rail Mean Miles Between Major Failure by Vehicle Type	3
Fleet Distribution Report	4
Vehicle Availability by Division	5
Lost Revenue Vehicle Hours by Category, by Division	6
Blue Line Performance	
Performance Summary	10
Major Incident Detail	11
Performance Charts	13
EXPO Line Performance	
Performance Summary	17
Major Incident Detail	18
Performance Charts	20
Red / Purple Line Performance	
Performance Summary	24
Major Incident Detail	25
Performance Charts	26
Green Line Performance	
Performance Summary	30
Major Incident Detail	31
Performance Charts	32
Gold Line Performance	
Performance Summary	36
Major Incident Detail	37
Performance Charts	40

METRO RAIL PERFORMANCE – APRIL 2016

Rail Performance Systemwide

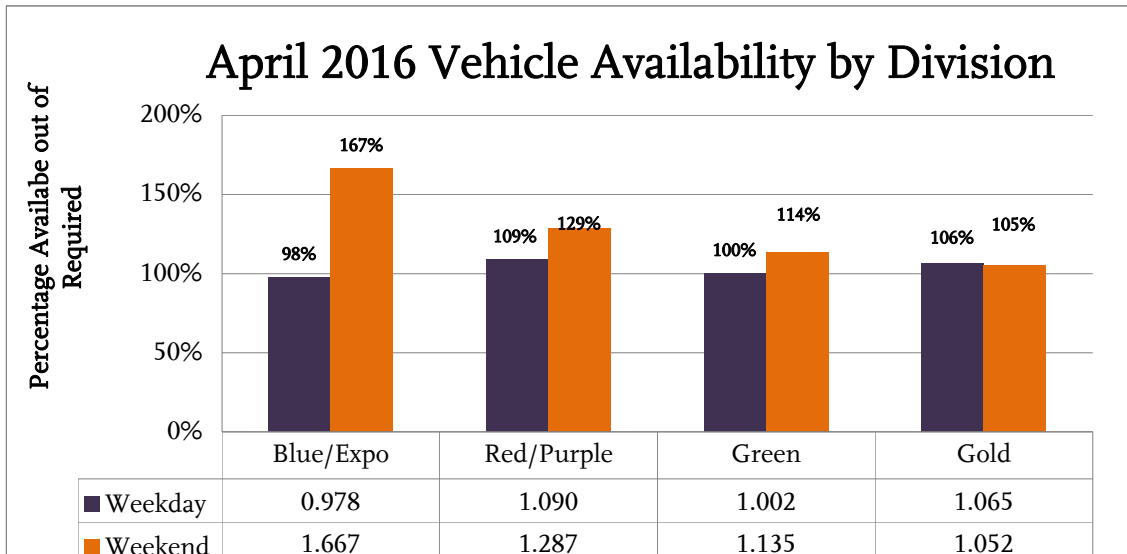


Rail Fleet Distribution – APRIL 2016

Number of Rail Vehicle Type by Division	RED / PURPLE	BLUE / EXPO	GREEN	GOLD
AnsaldoBreda 2550 Base - AC				50
Breda 650 Base - DC	30			
Breda 650 Option - AC	74			
Nippon Sharyo 2020 - DC		15		
Nippon Sharyo 865 - DC		54		
Siemens 2000 Base - AC			29	
Siemens 2000 GE/ATP - AC		23		
TOTALS	104	92	29	50

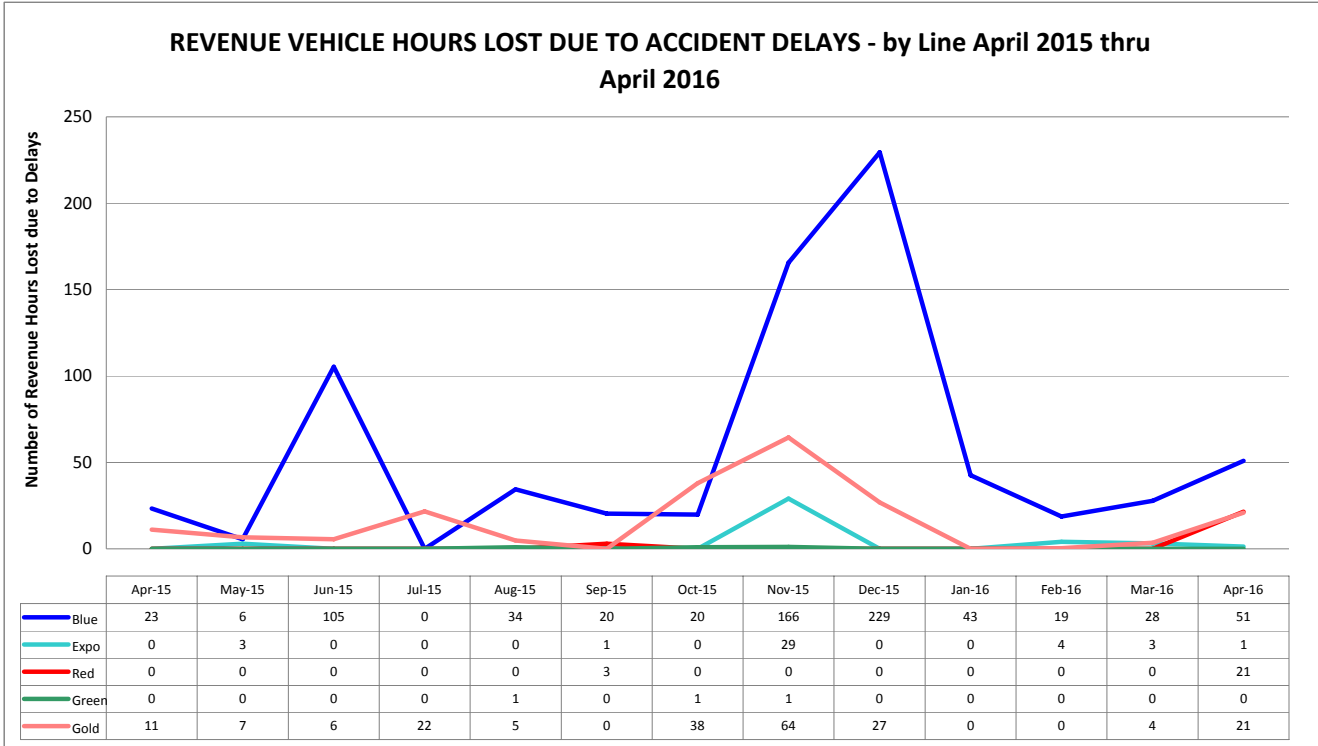
Vehicle Availability Systemwide

Blue/ Expo			
Pullout Type	Vehicles Required	Average Available	Average % Available
Weekday	61	60	98%
Weekend	26	43	167%
Red/ Purple			
Pullout Type	Vehicles Required	Average Available	Average % Available
Weekday	74	81	109%
Weekend	55	71	129%
Green			
Pullout Type	Vehicles Required	Average Available	Average % Available
Weekday	22	22	100%
Weekend	14	16	114%
Gold			
Pullout Type	Vehicles Required	Average Available	Average % Available
Weekday	24	26	106%
Weekend	40	42	105%

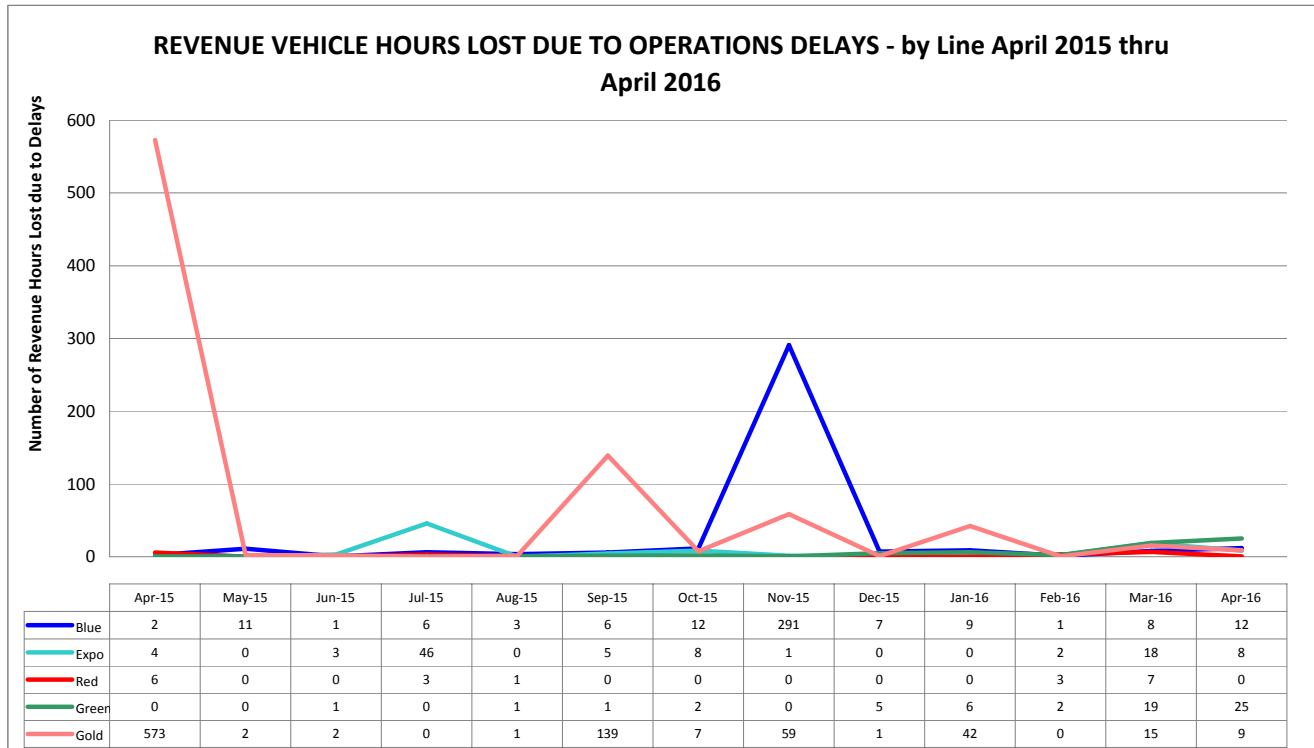


RAIL DELAYS BY CATEGORY - SYSTEMWIDE

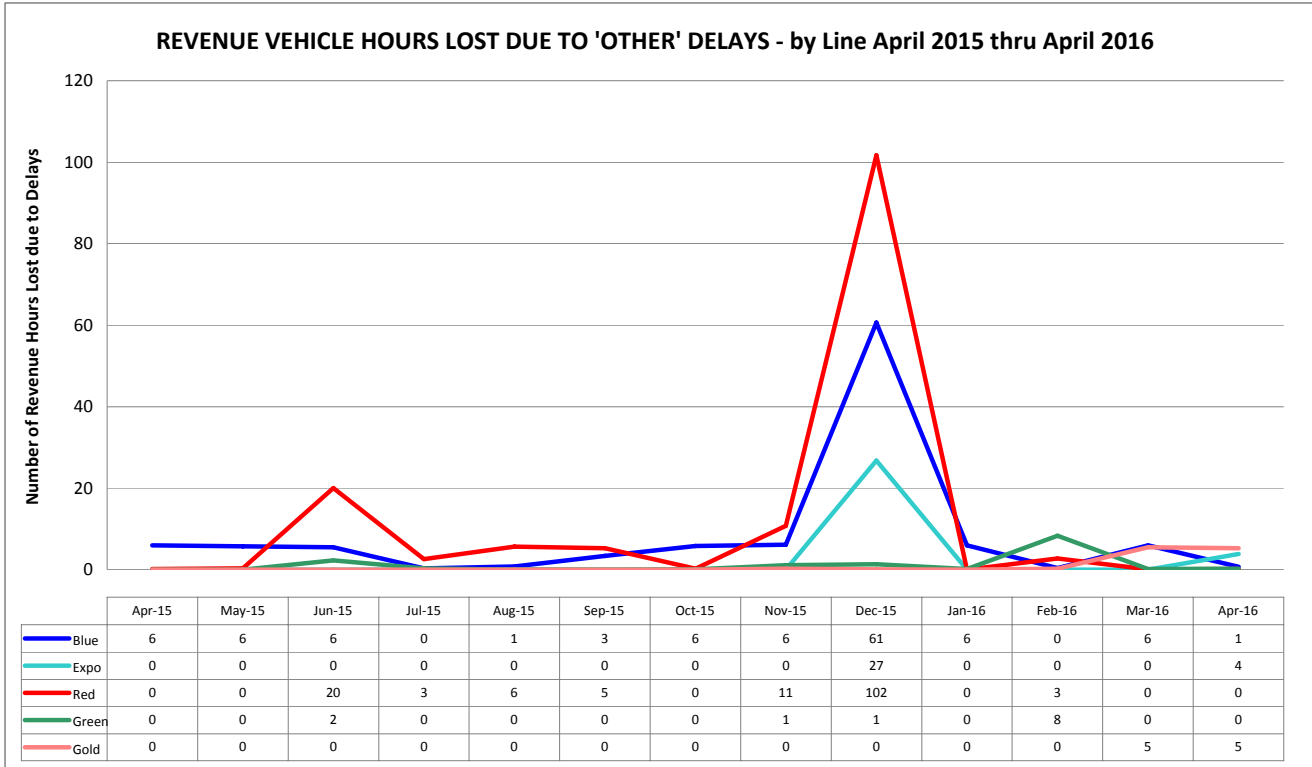
Revenue Hours Lost Related to - ACCIDENTS



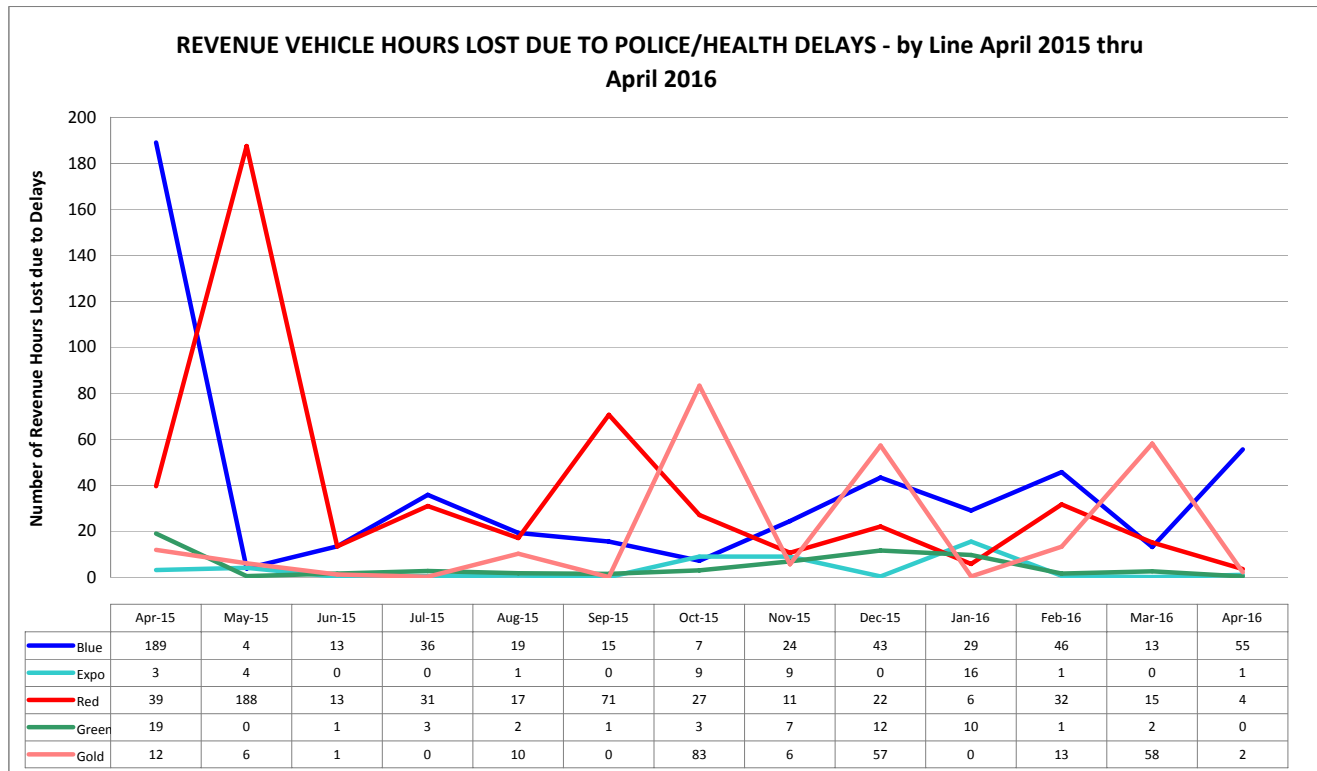
Revenue Hours Lost Related to - OPERATIONS



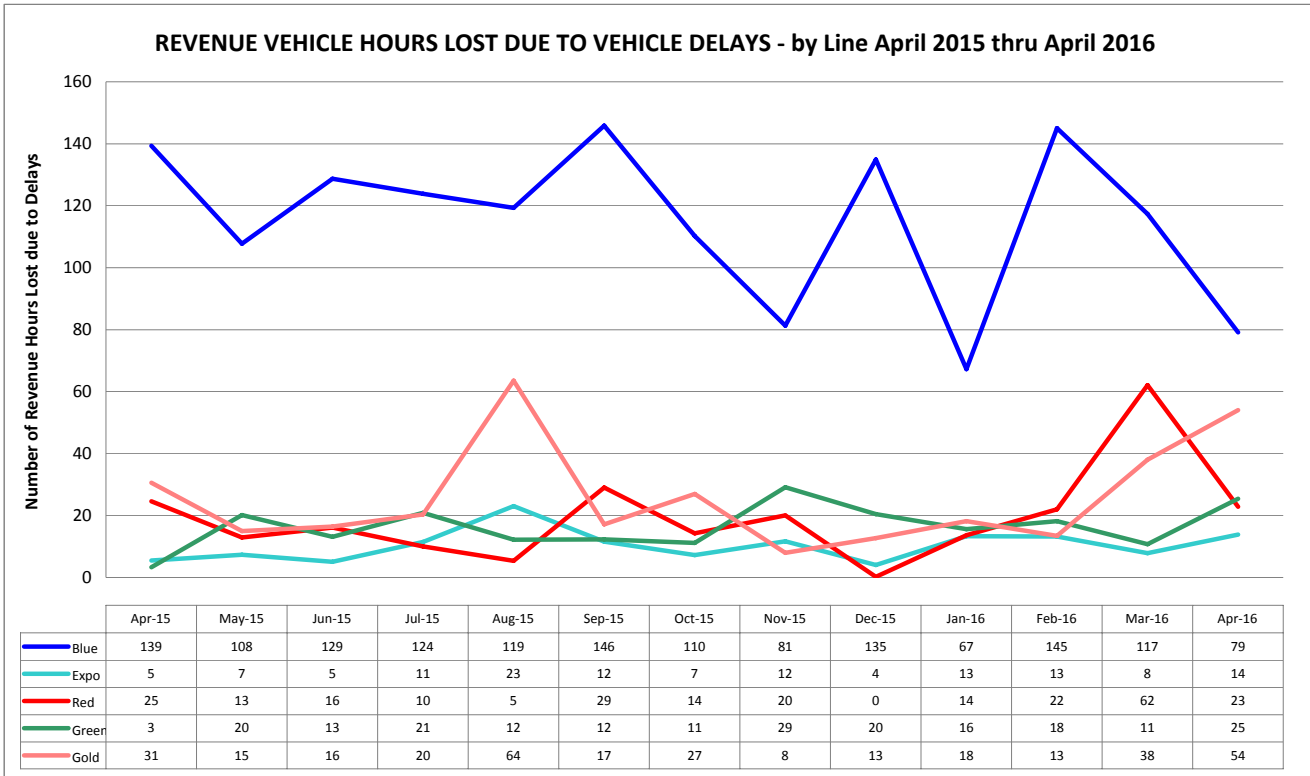
Revenue Hours Lost Related to - OTHER



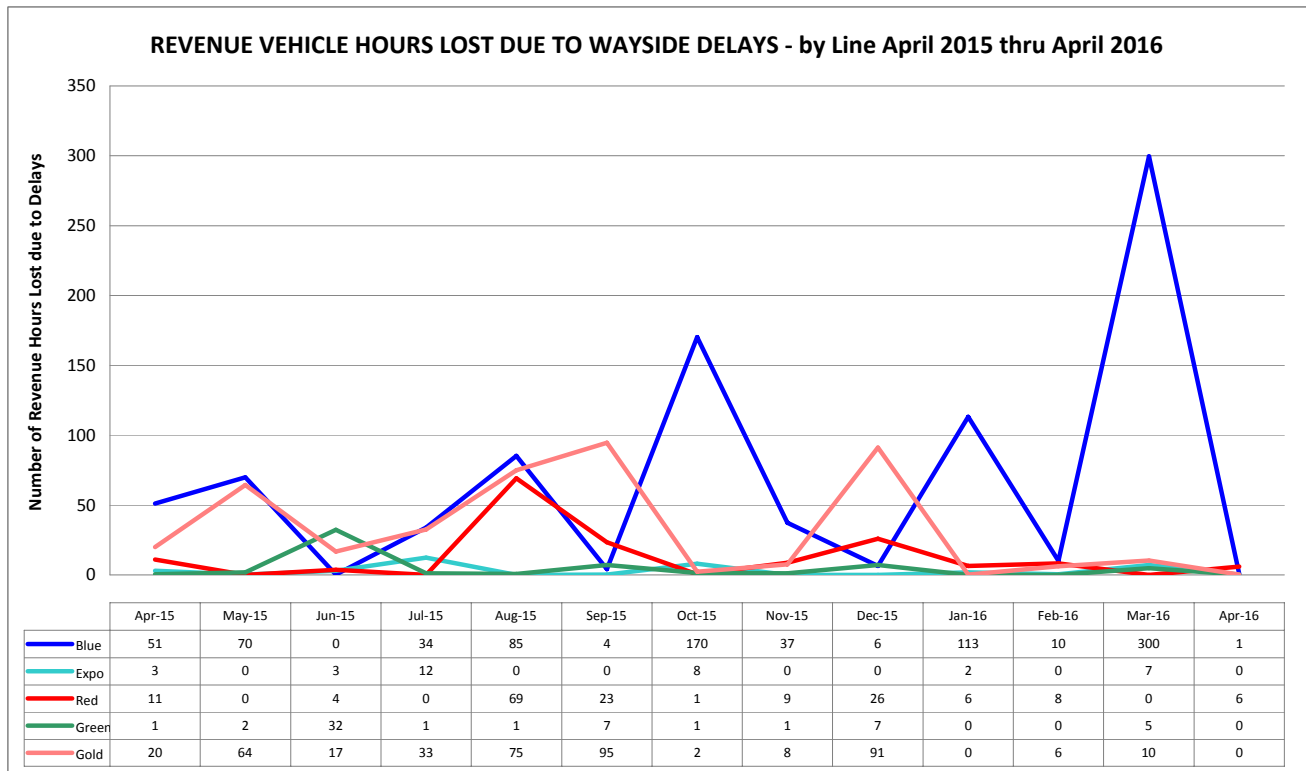
Revenue Hours Lost Related to - POLICE & HEALTH



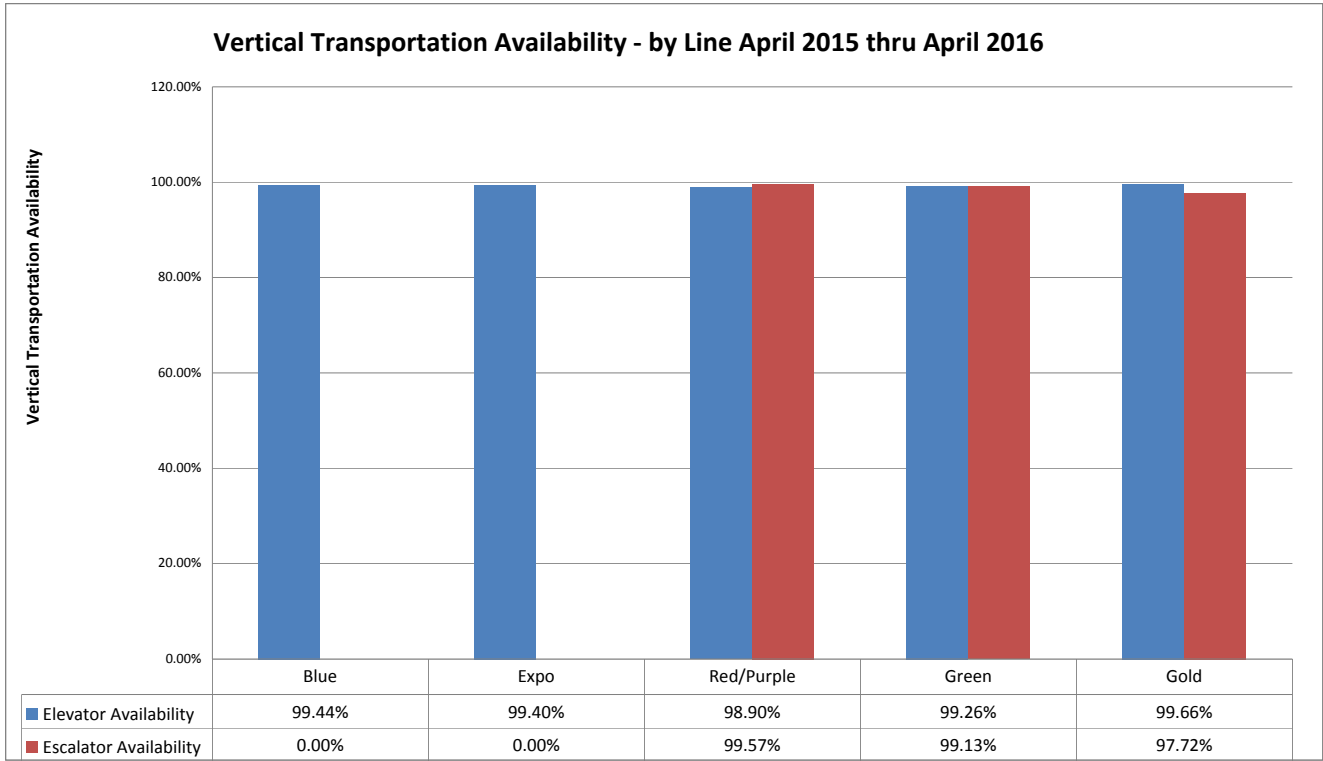
Revenue Hours Lost Related to - POLICE & HEALTH



Revenue Hours Lost Related to - WAYSIDE



Systemwide Vertical Transportation Availability by Line



BLUE LINE

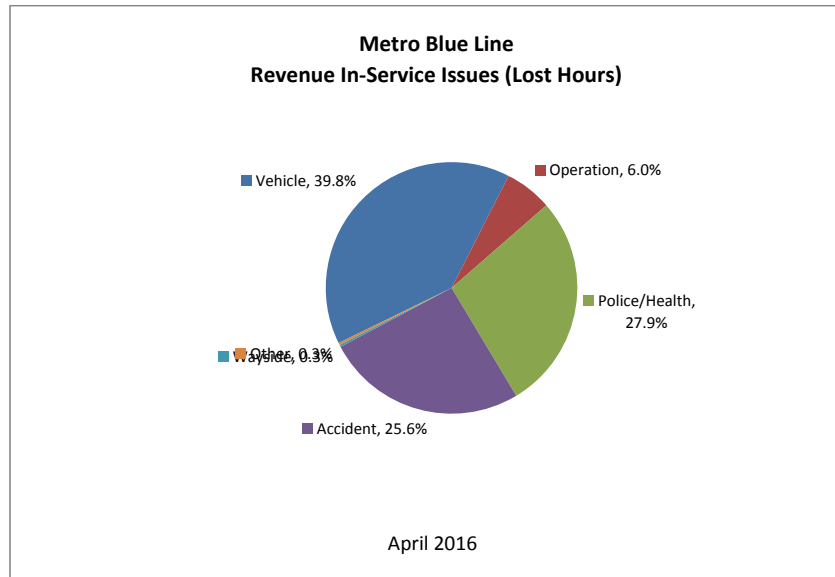
Out of a total of 19,714 hours operated, there were approximately 199 total hours of service delays.

April 2016 Service Hours

Revenue Hours without Delays	19,515	99.0%
Hours Delayed	199	1.0%
Total Revenue Hours	19,714	100.0%

Summary of the major contributors:

Operations	11.9	6.0%
Accidents	50.9	25.6%
Vehicle	79.1	39.8%
Wayside	0.7	0.3%
Police & Health	55.5	27.9%
Other	0.7	0.3%
Total	198.7	100.0%



April 2016 Blue Line major delay contributors were as follows:

Accident:

04/09/2016

Train 104 reported a Train v Auto North of 1st Station Northbound. Turn back and reverse run operations implemented. Patrons were advised to walk to Pacific station for Northbound service. At 2235 hrs, an extra operator took over the incident train to Transit Mall and back to the yard out of service. 9 trips canceled with a

04/30/2016

Train 101 reported an Auto Vs. Train a 10-73 at Long Beach Blvd and 3rd Southbound. Turnback and Shuttle Operations through the LB Loop implemented. At 1429 hrs, Rail Fleet Services cleared the train for movement. At 1430 hrs normal operations resumed. 9 trips canceled with a max delay of 40 mins.

04/08/2016

Train 103 reported an Auto V. Train Northbound at Pacific and 3rd. No injuries reported per operator. Reverse run and turnback operations implemented. 1550 hrs, Train 103 patrons was evacuated and escorted to Pacific Station and picked up by Train 106. At 1638 hrs, Train 103 was released by Long Beach PD and recovered to Transit Mall. 5 trips canceled with a max delay of 33 mins.

Operations:

04/10/2016

Train 106 delayed due to TA MTA not involved TA caused blockade at PCH track 1, reverse running operations. 3 trips canceled with a max delay of 24 mins.

Police/Health:

04/15/2016

Wardlow station shut down due to prior incident, per LASD authorized ROC to route 3 out of service trains into Long Beach for shuttle service, schedule adjusted. 6 trains cancelled, operators assisting with fall backs and crowd control. At 1512 hrs, emergency personnel as well as HAZMAT completed their investigations and clean up. Normal operations resumed. 18 trips canceled with a max delay of 24 mins.

04/14/2016

Traffic accident MTA not involved at 7th st. and Pacific Ave. relay train requested. Train 104 reverse ran to Anaheim Station and offloaded. All Southbound trains reverse ran through the Long Beach loop. The vehicles were cleared from the ROW at 1109 hrs and normal operations resumed. 2 trips canceled with a max delay of 24

Vehicle Maintenance:

04/08/2016

Train 125 reported a loss of air pressure on Car 122 139 and 148 Northbound at Florence station. Single tracking and turn back operations implemented from Florence interlocking to Maple Interlocking. A Veh Tech reported the dogbone around the axle broke and severed the air lines. At 1952 hrs, Train 125 was placed in dead tow and proceeded to Division 11 Yard. Track 1 was cleared at 1952 hrs. 7 trips canceled with a max delay 15 mins.

04/19/2016

Train 108 reported no movement on Car 230 Southbound at Pico station. Single tracking and turnback operations implemented. Expo Train 602 off loaded and proceeded South back to Culver City. Train 108 regained movement and proceeded in service at 0710 hrs. 2 trips canceled and several trips affected with a max

04/26/2016

Train 107 no movement with door fault on Car 233 Southbound at Myrrh Street. No motion bypass needed to proceed. Train 107 offloaded at Artesia and pulled-in to Division 11. 1 trip canceled with max delay of 24 mins.

04/22/2016

Train 102 reports propulsion dynamic brake fault with speed restriction at Willowbrook station, relay placed in service for on time departure at Wardlow station S/B. 20 minutes max delay.

04/12/2016

Train 102 at Willow station experienced MA low, prop fault with speed restriction, gap train placed in service, replacement requested. 10 trips affected with a max delay of 15 minutes.

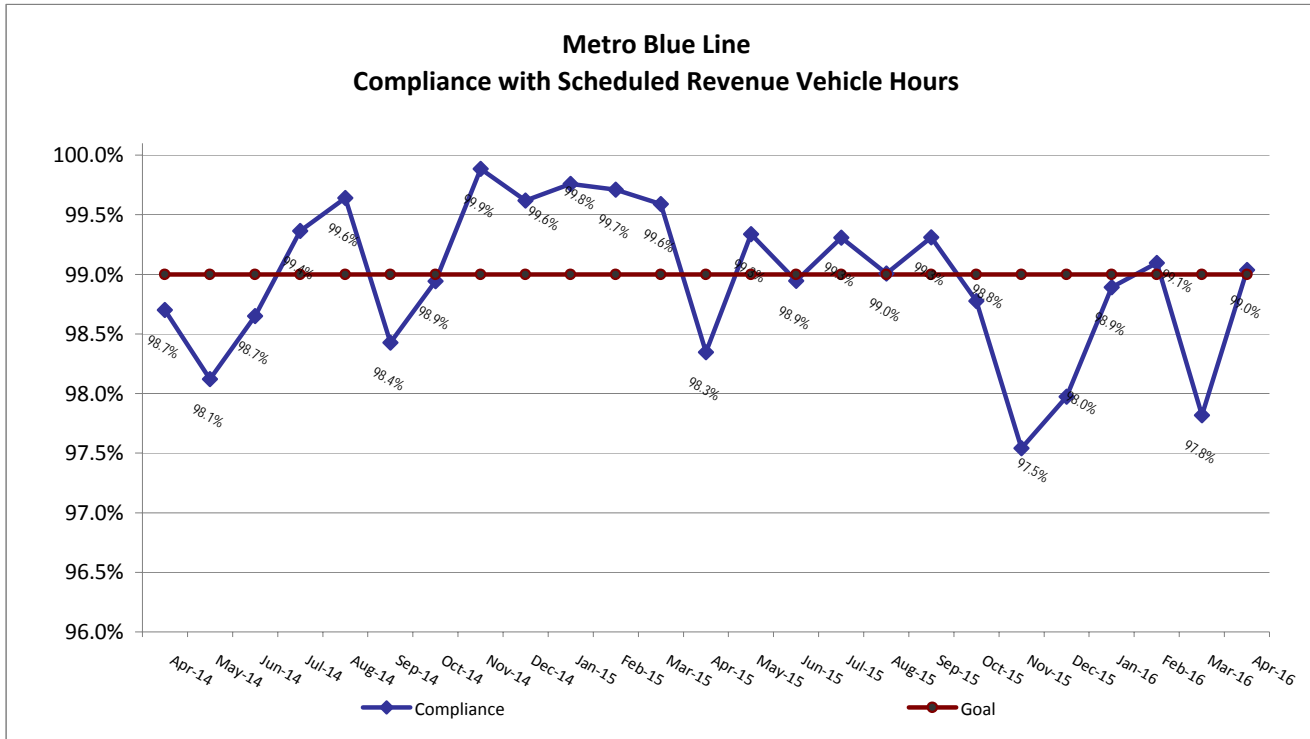
Wayside:

04/18/2016

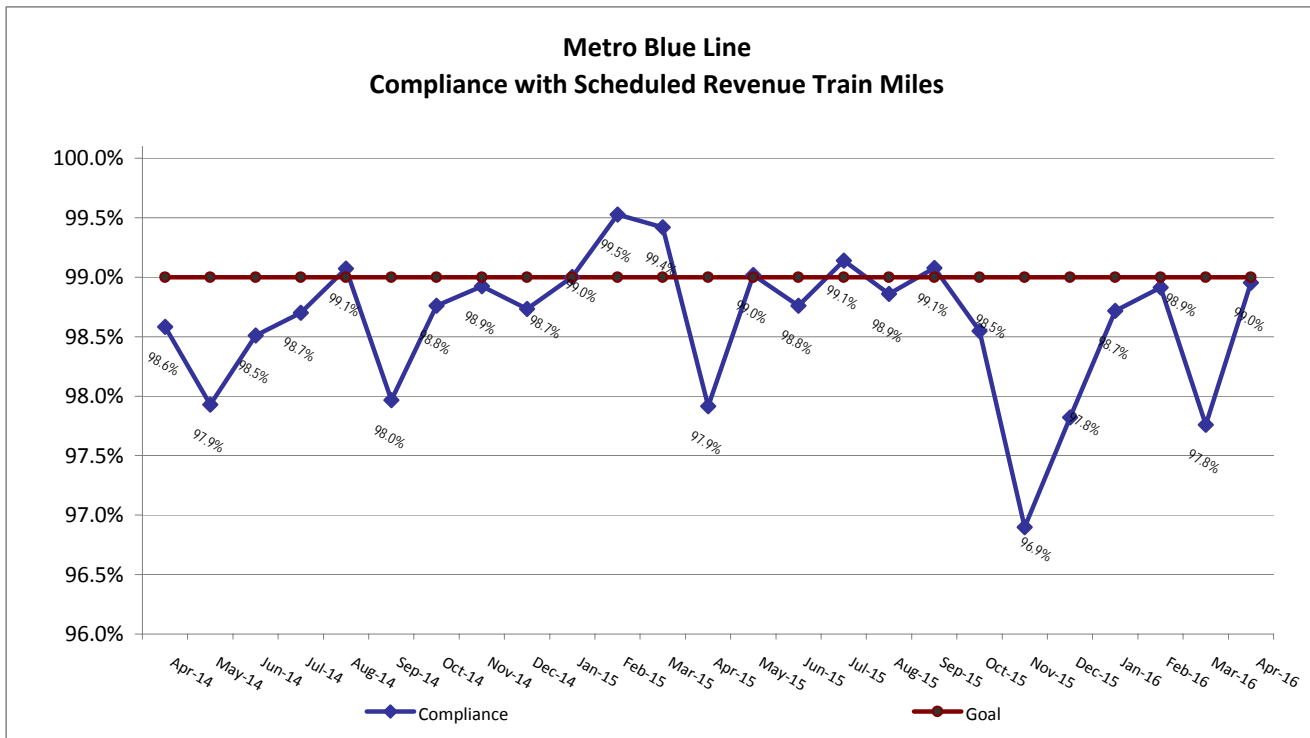
SCADA indicated a False Occupancy on Track Circuit 2 at Artesia Interlocking. Signals personnel were able to clear the false occupancy at 0034 hours. 20 mins max delay.

MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS

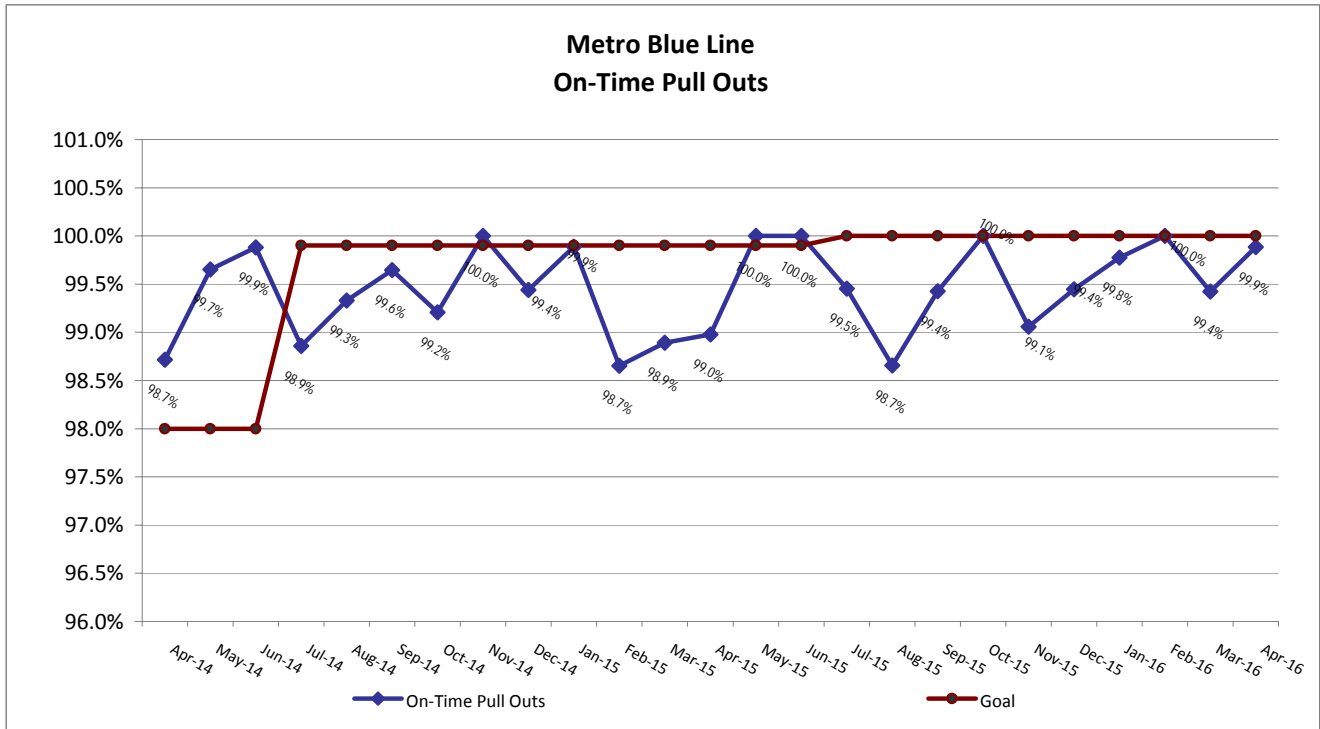
COMPLIANCE WITH SCHEDULED VEHICLE HOURS CHART



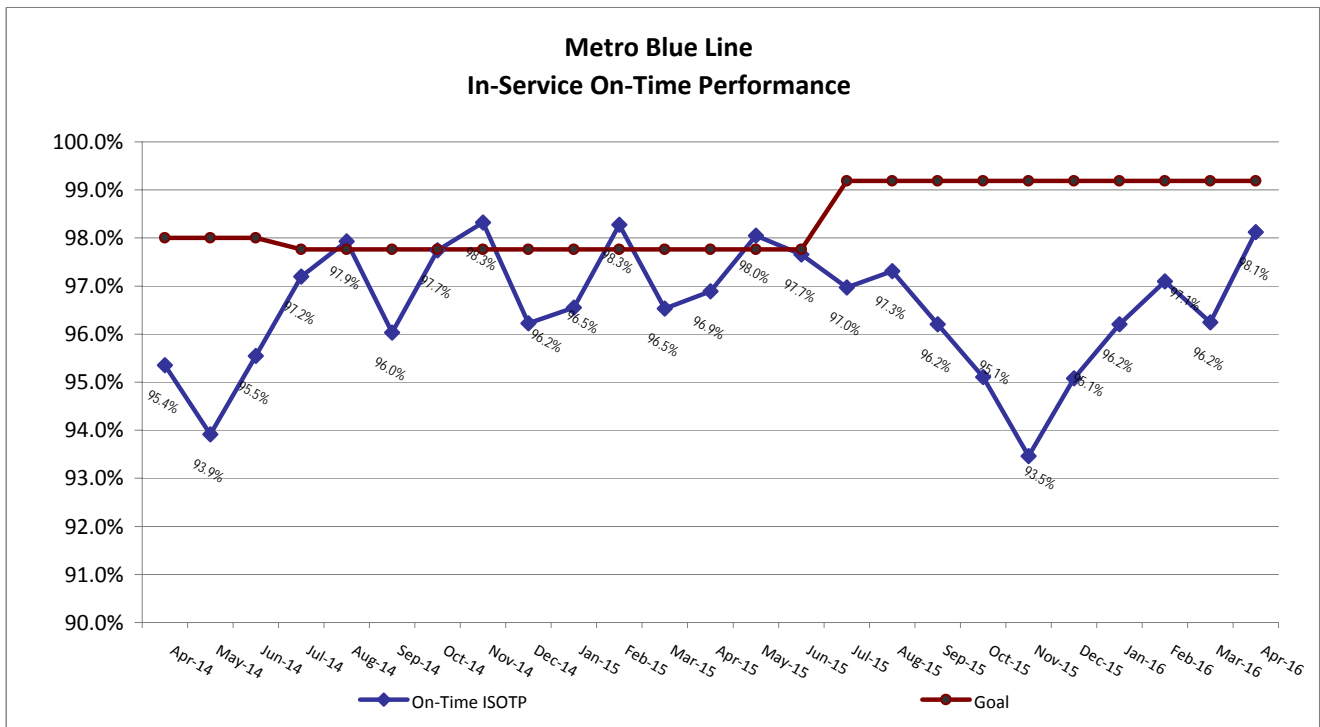
COMPLIANCE WITH SCHEDULED TRAIN MILES CHART



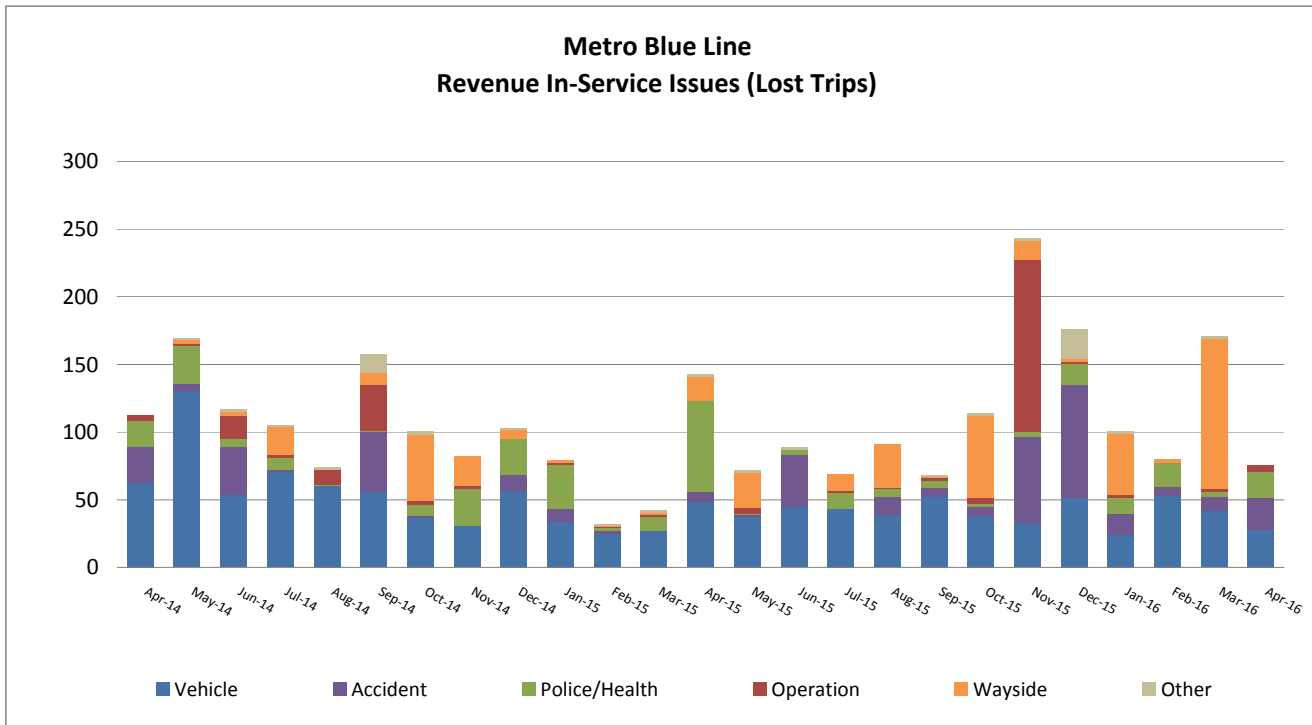
ON-TIME PULL OUTS CHART



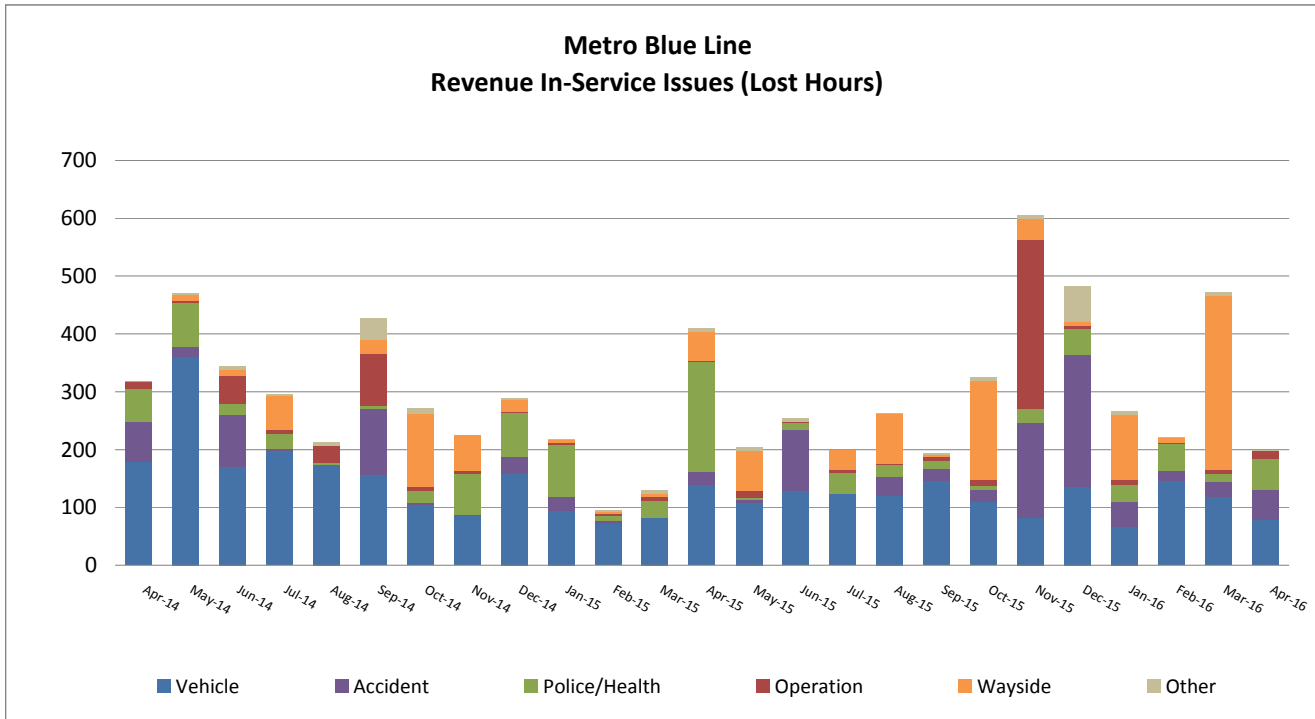
IN-SERVICE ON-TIME PERFORMANCE CHART



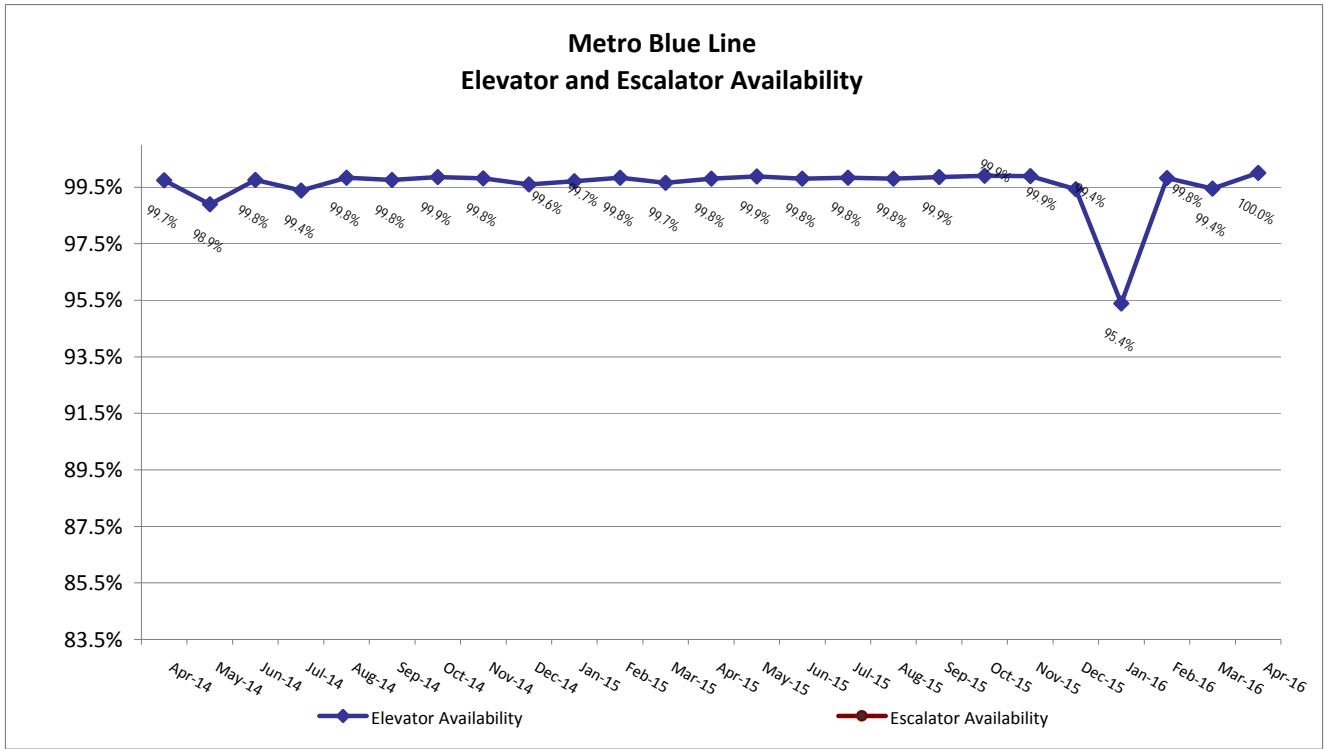
Lost Trips



Lost Hours



VERTICAL TRANSPORTATION AVAILABILITY



EXPO LINE

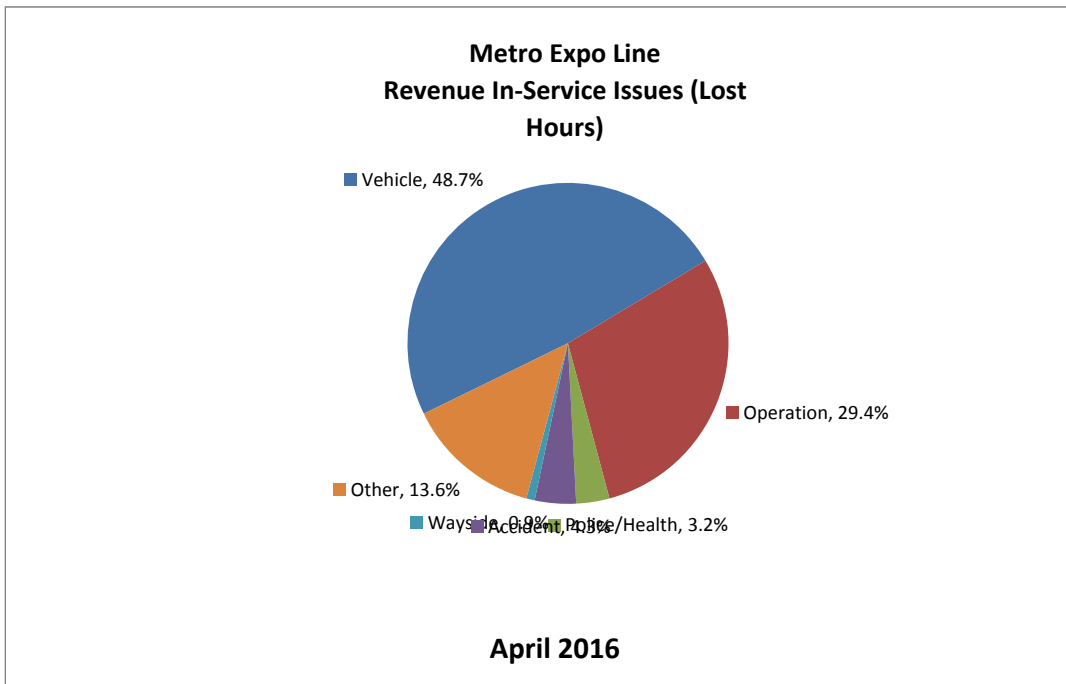
Out of a total of 10,583 hours operated, there were approximately 28 total hours of service delays.

April 2016 Service Hours

Revenue Hours without Delays	10,554	99.7%
Hours Delayed	28	0.3%
Total Revenue Hours	10,583	100.0%

Summary of the major contributors:

Operations	8.4	29.4%
Accidents	1.2	4.3%
Vehicle	13.9	48.7%
Wayside	0.3	0.9%
Police & Health	0.9	3.2%
Other	3.9	13.6%
Total	28.5	100.0%



April 2016 Expo Line major delay contributors were as follows:

Accident:

04/13/2016

Train 602 reported in a hit and run Train Vs. Auto Northbound at Denker north of Western. The incident train held while single tracking operations were implemented. Train 602 was evacuated and passengers were walked back to the Western Station. At 0922 hrs, the incident train was cleared and sent to the Expo Yard out of service for post accident. 1 trip canceled with a max delay of 20 mins.

Operations:

04/19/2016

Delays to EXPO due to Blue Incident 2721024. 2 trips canceled and several trips affected with a max delay of 12

04/05/2016

Trains experiencing delays due to test trains, scheduled single tracking S/B, gap train will be placed in service to minimize the delay. 19 trips affected with a max delay of 27 mins.

04/03/2016

All trains on Expo line were incurring 15 up to 20 minute delays due to the single track area being extended from Catalina to 30th Interlocking. 8 trips affected with a max delay of 20 mins.

Police/Health:

04/01/2016

Train 608 being held at Jefferson station per LASD reports of a man on board with a knife, gap train placed in service. 20 minute delay.

Vehicle Maintenance:

04/17/2016

Train 601 reported lost movement twice with brake fault on Car 236 and 249 Northbound at Bagley crossing and holding gates down. Turn back and single tracking operations implemented. At 0700 hrs, Train 601 lost movement again South of Palms interlocking. At 0735 hrs, the train regained movement and was moved to the ELY. 8 trips canceled with a max delay of 50 mins.

Yard Operations:

04/23/2016

EXPO YC reported NO equipment available at Division 14 for pull out trains 608 and 609. The first round trips for both KK and HH were canceled. To recover regular rotation a two car consist was split into single cars. 4 trips canceled with a max delay of 12 mins.

04/05/2016

Expo line will not have cars for trains 608 and 609 due to lack of equipment. Both trains started service from 7th & Metro to Santa Monica. 2 trips canceled with a max delay of 12 mins.



Metro

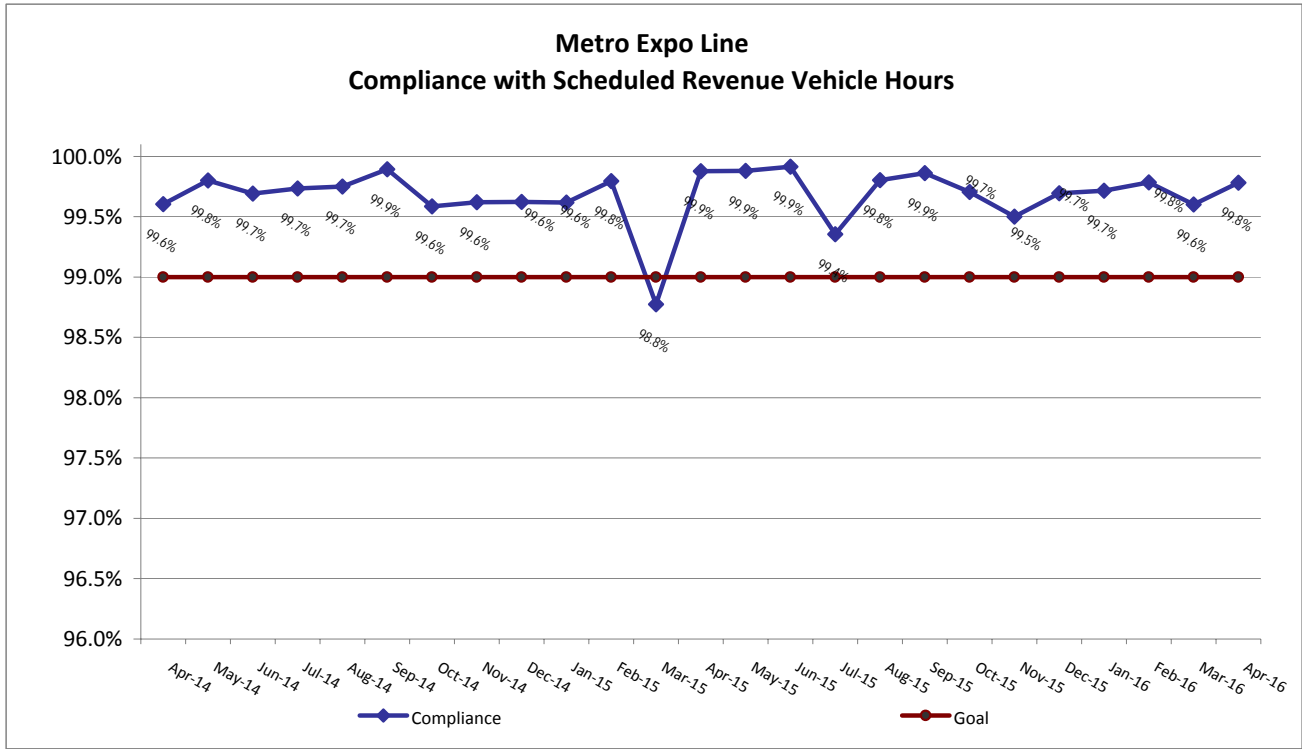
RAIL PERFORMANCE

04/27/2016

Train 603 cancelled due to no equipment at 7th & Metro, no gap train available trip cancelled N/S bound. 2 trips canceled with a max delay of 12 mins.

MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS

COMPLIANCE WITH SCHEDULED VEHICLE HOURS CHART



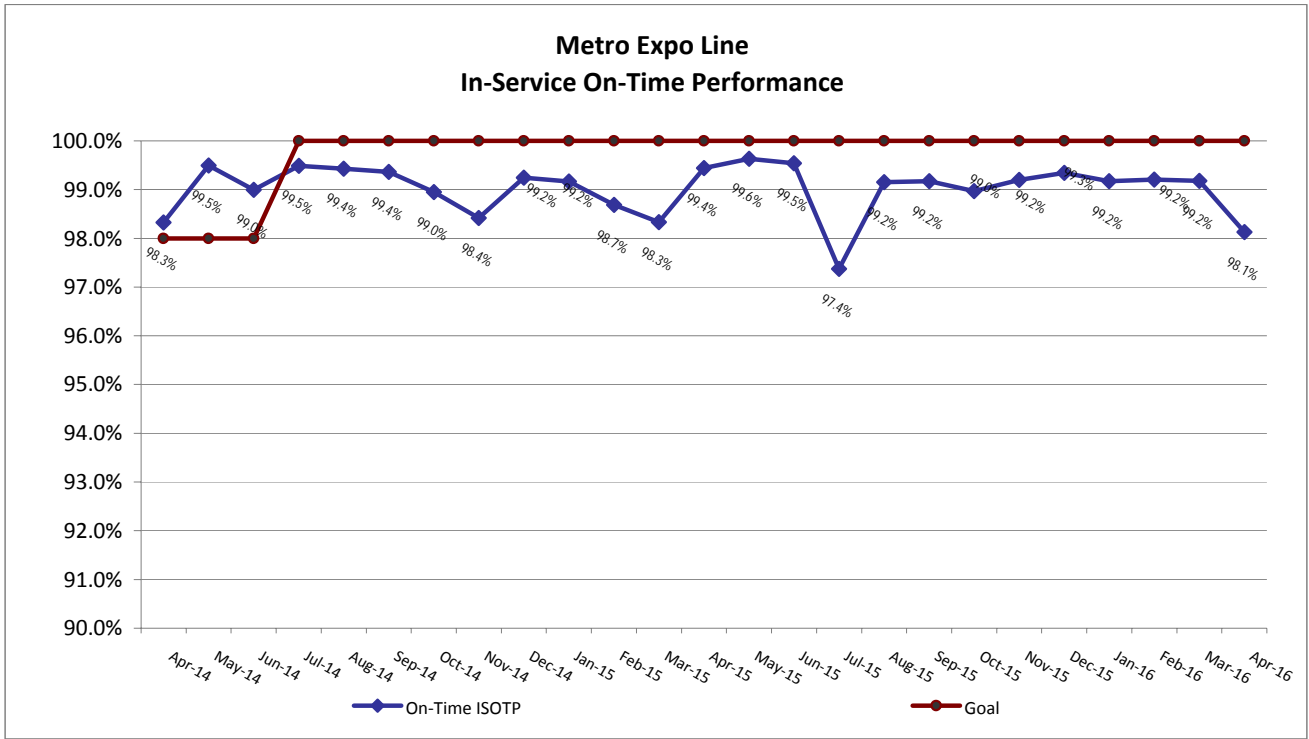
COMPLIANCE WITH SCHEDULED TRAIN MILES CHART



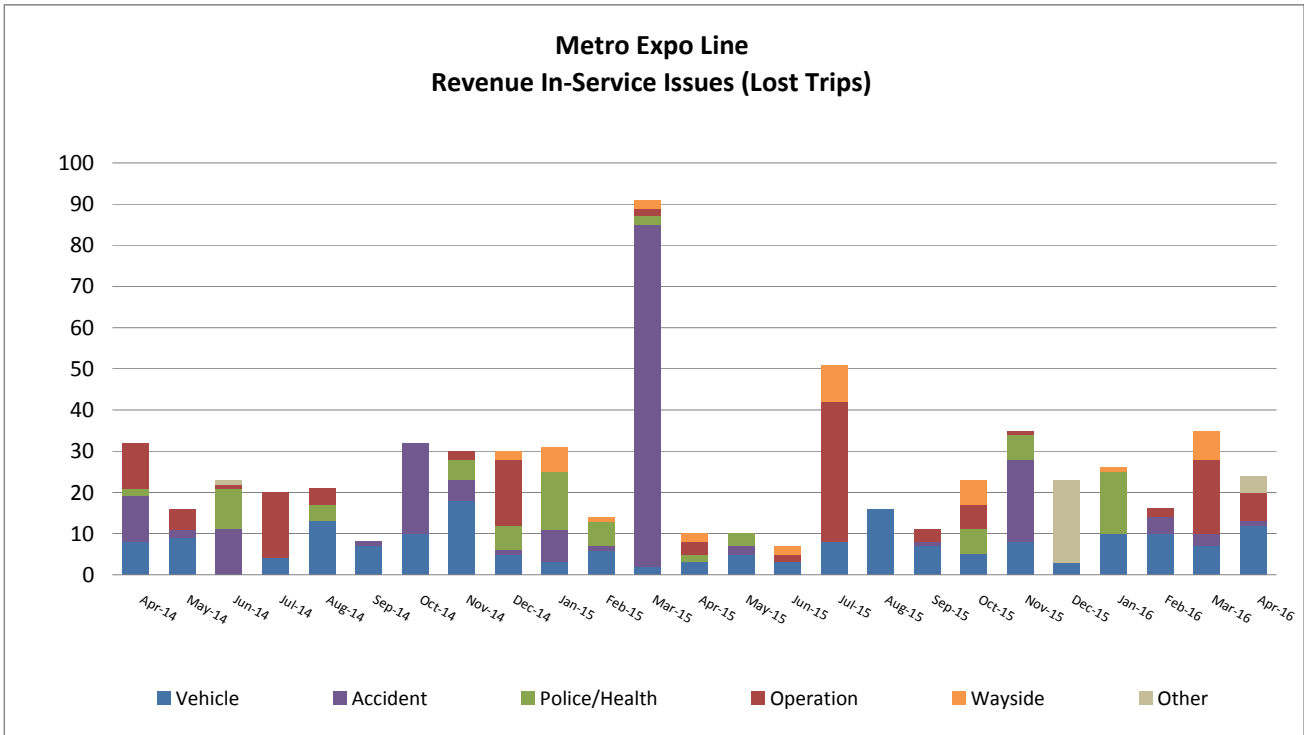
ON-TIME PULL OUTS CHART

Expo Line Pull Outs are included in Blue line Pull Outs.

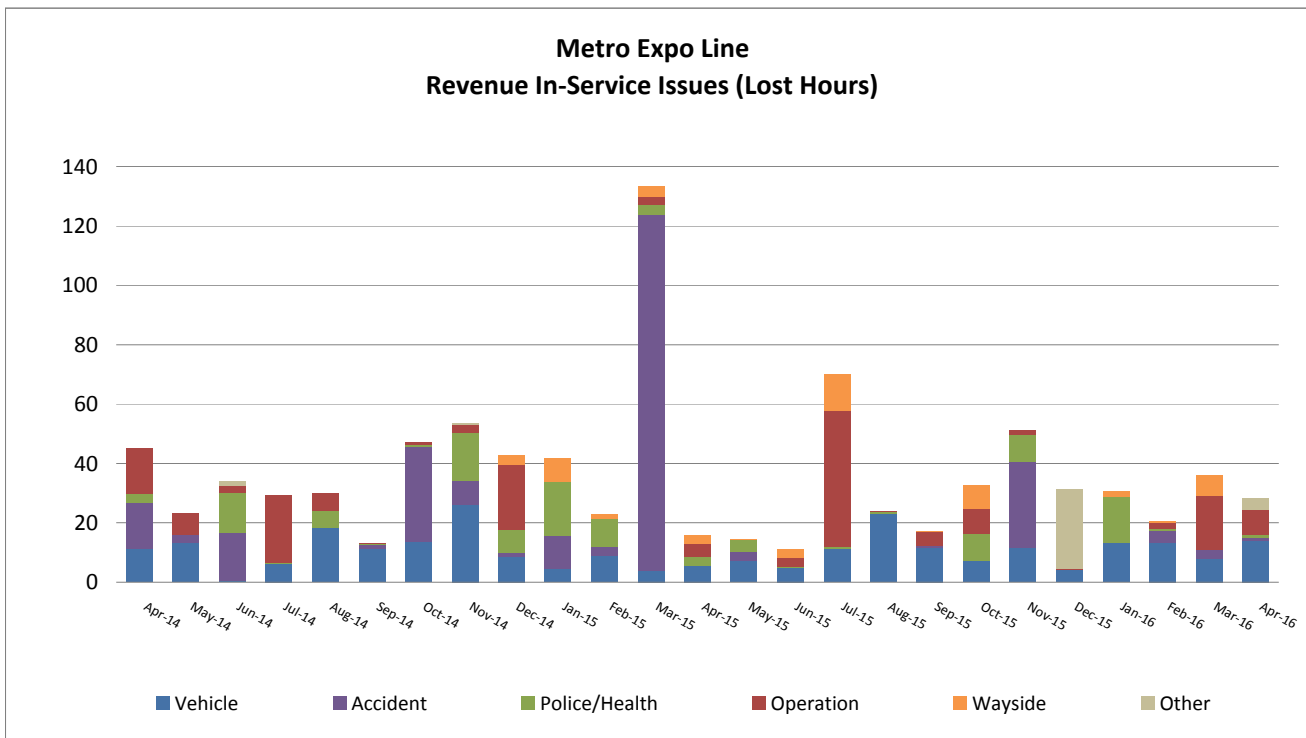
IN-SERVICE ON-TIME PERFORMANCE CHART



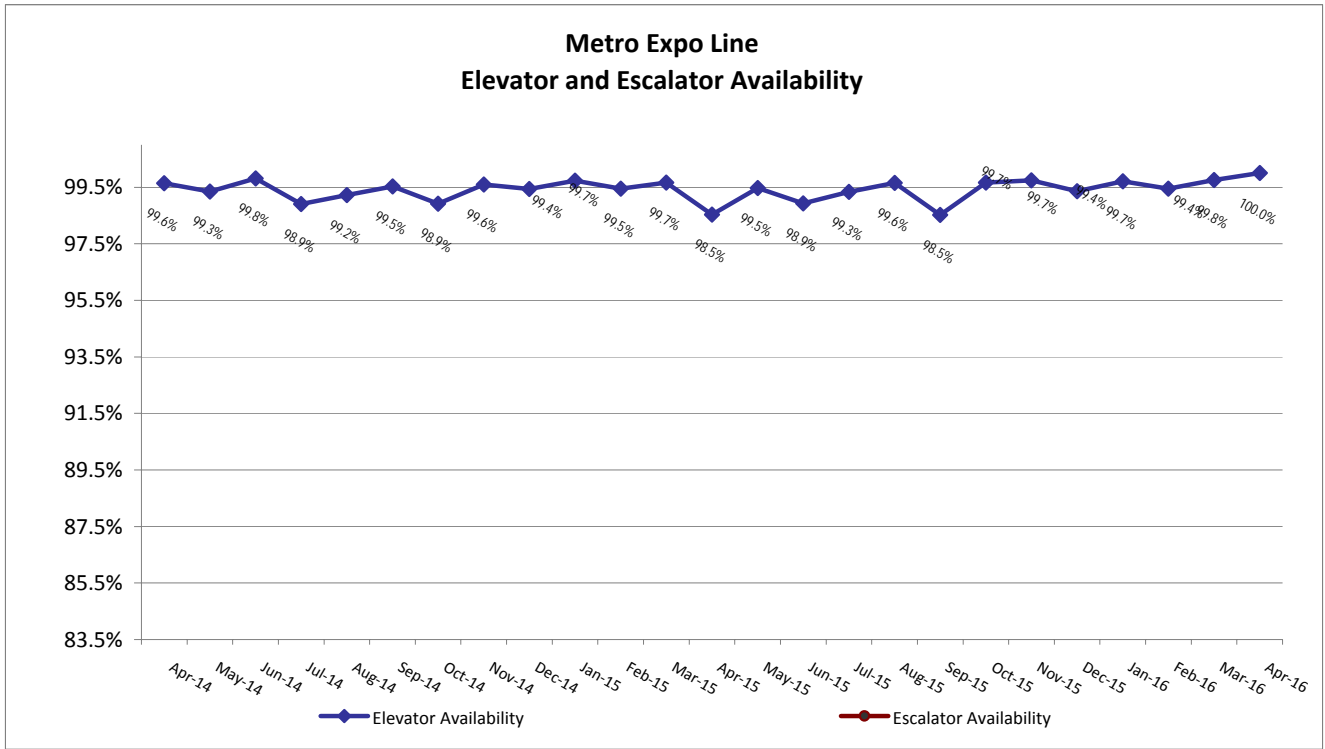
Lost Trips



Lost Hours



VERTICAL TRANSPORTATION AVAILABILITY



RED LINE

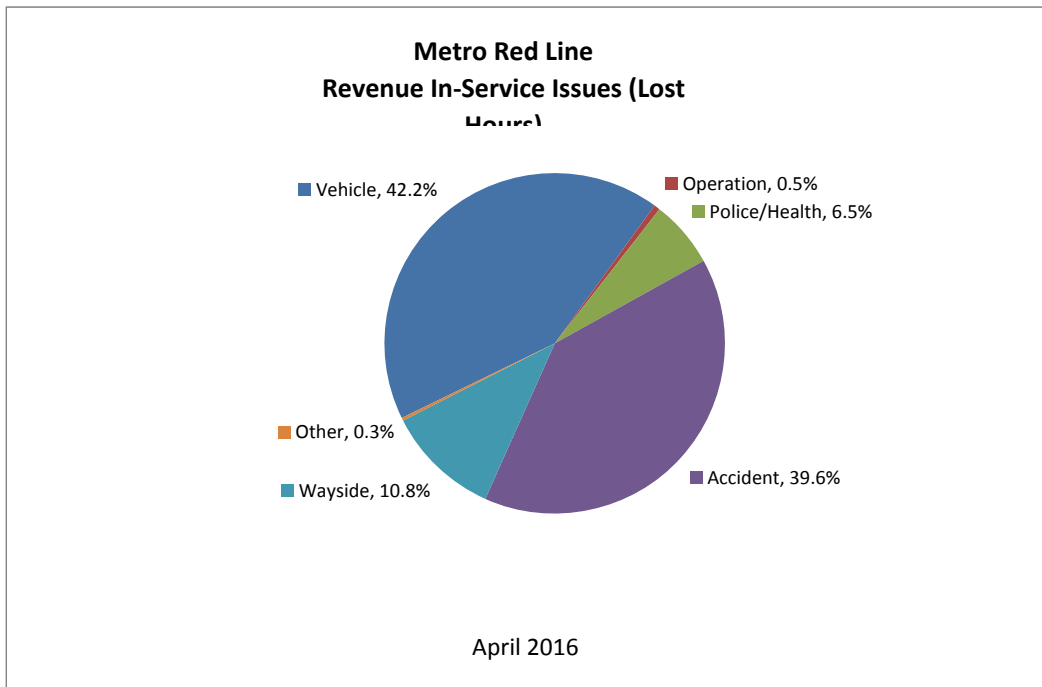
Out of a total of 25,653 hours operated, there were approximately 54 total hours of service delays.

April 2016 Service Hours

Revenue Hours without Delays	25,599	99.8%
Hours Delayed	54	0.2%
Total Revenue Hours	25,653	100.0%

Summary of the major contributors:

Operations	0.3	0.5%
Accidents	21.4	39.6%
Vehicle	22.8	42.2%
Wayside	5.9	10.8%
Police & Health	3.5	6.5%
Other	0.2	0.3%
Total	54.1	100.0%



April 2016 Red Line major delay contributors were as follows:

Police/Health:

04/10/2016

Trespasser in tunnel between Hollywood Vine and Hollywood/Highland activating several ETS no power to AR and AL tracks, bus bridge requested. 30 minute delay. 1 trip canceled with a max delay of 30 mins.

Vehicle Maintenance:

04/07/2016

Train 214 Hollywood Highland was delayed due to doors being held open by patrons. Single tracking and turn back operations implemented at Hollywood Western and Universal City. At 0030 hrs, the operator checked all doors and was able to gain movement in EMO mode to Hollywood/Vine. 6 trips canceled with a max delay of 50 mins.

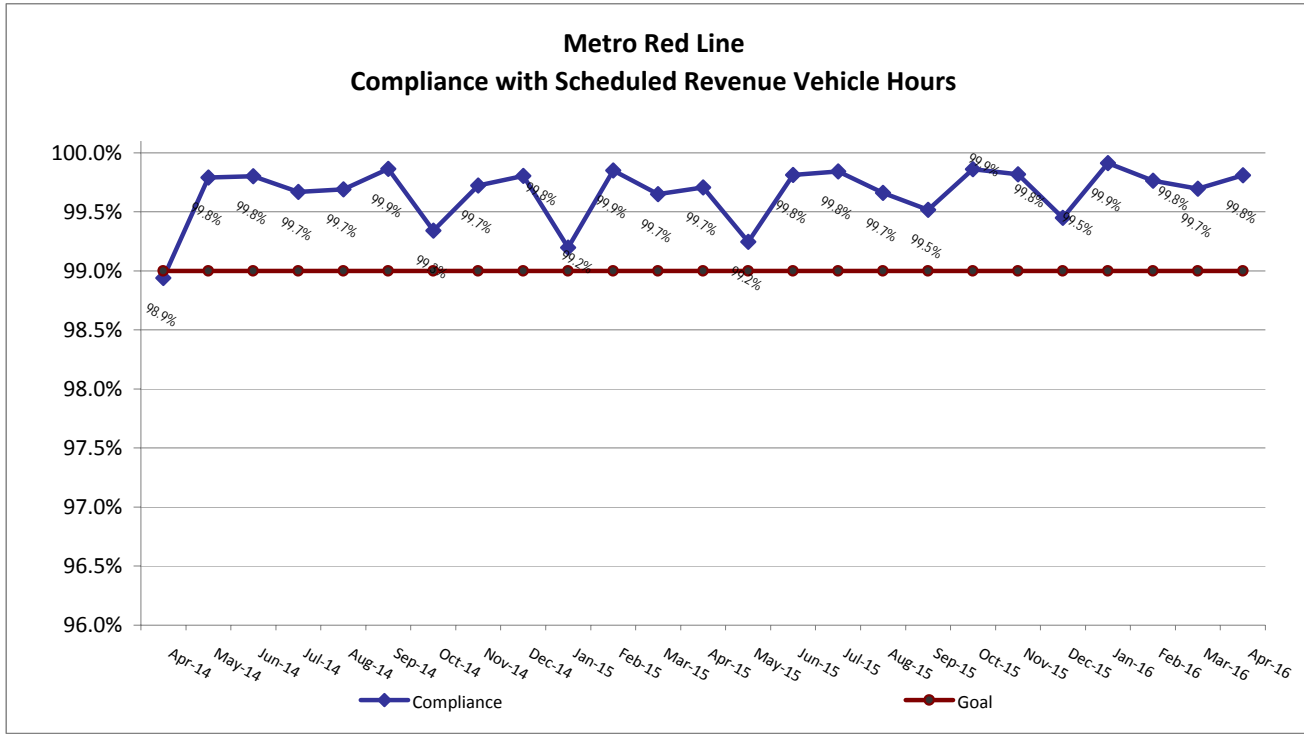
Wayside:

04/04/2016

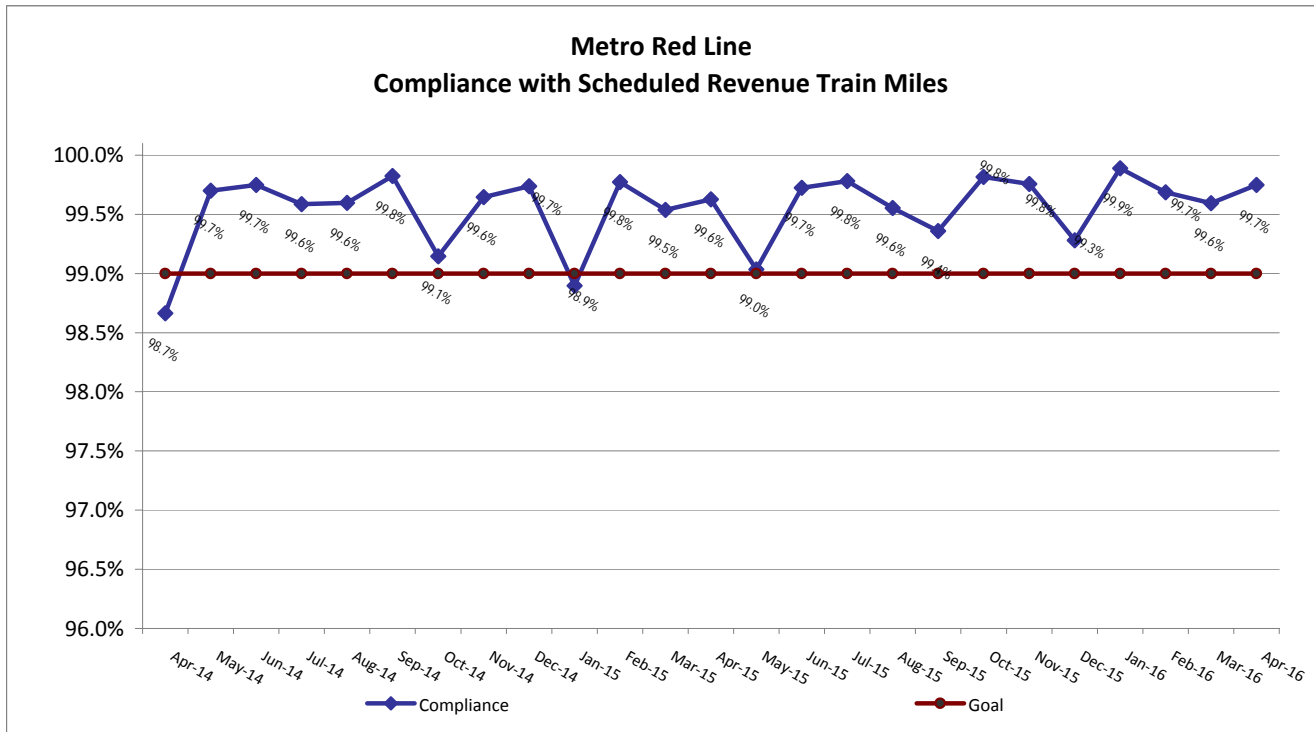
DWP utility power temporary loss causing DC breakers to open at affected locations, Union, Civic, Pershing, 7th & Metro including the MRL Yard. Train 214 unable to move at 7th & Metro. SCADA and mainline RTU's were offline. Power restored to mainline at 2348 hrs. Due to 20 min headways for single tracking per pink letter M-278 a service delay of 48 mins was incurred. 1 trip canceled with a max delay of 48 mins.

MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS

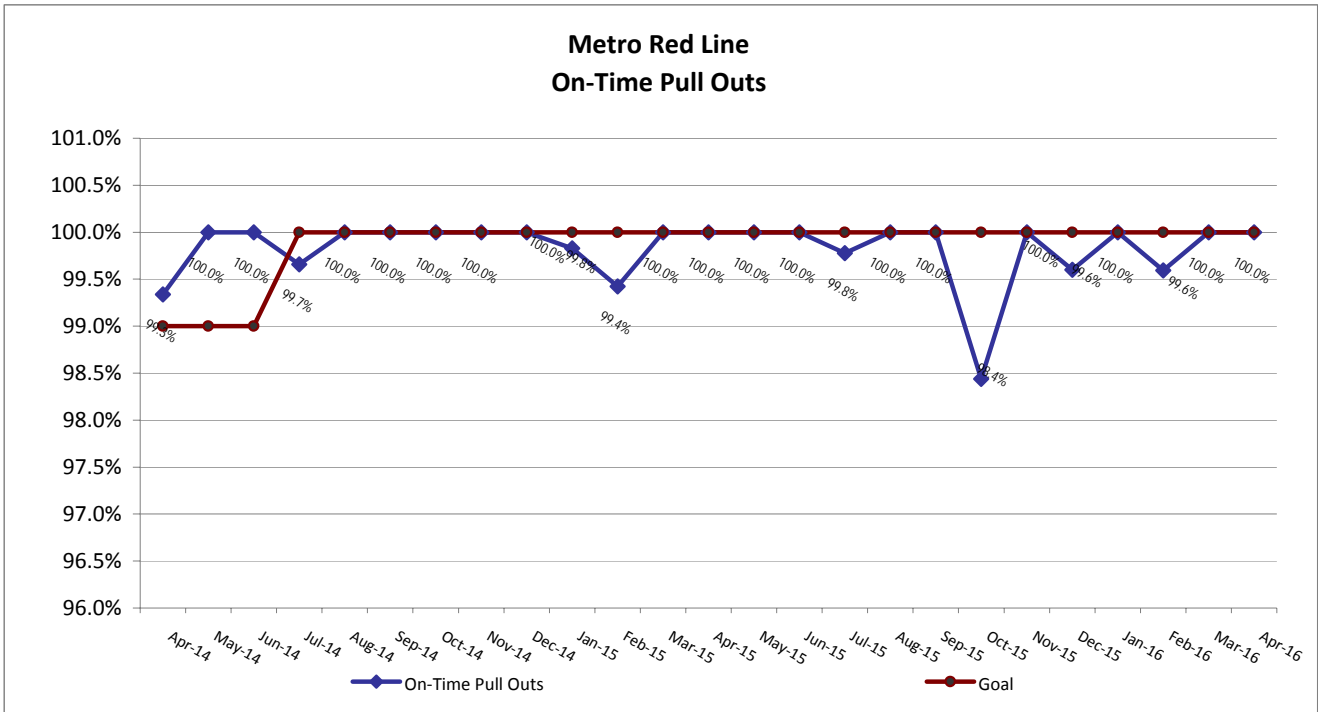
COMPLIANCE WITH SCHEDULED VEHICLE HOURS CHART



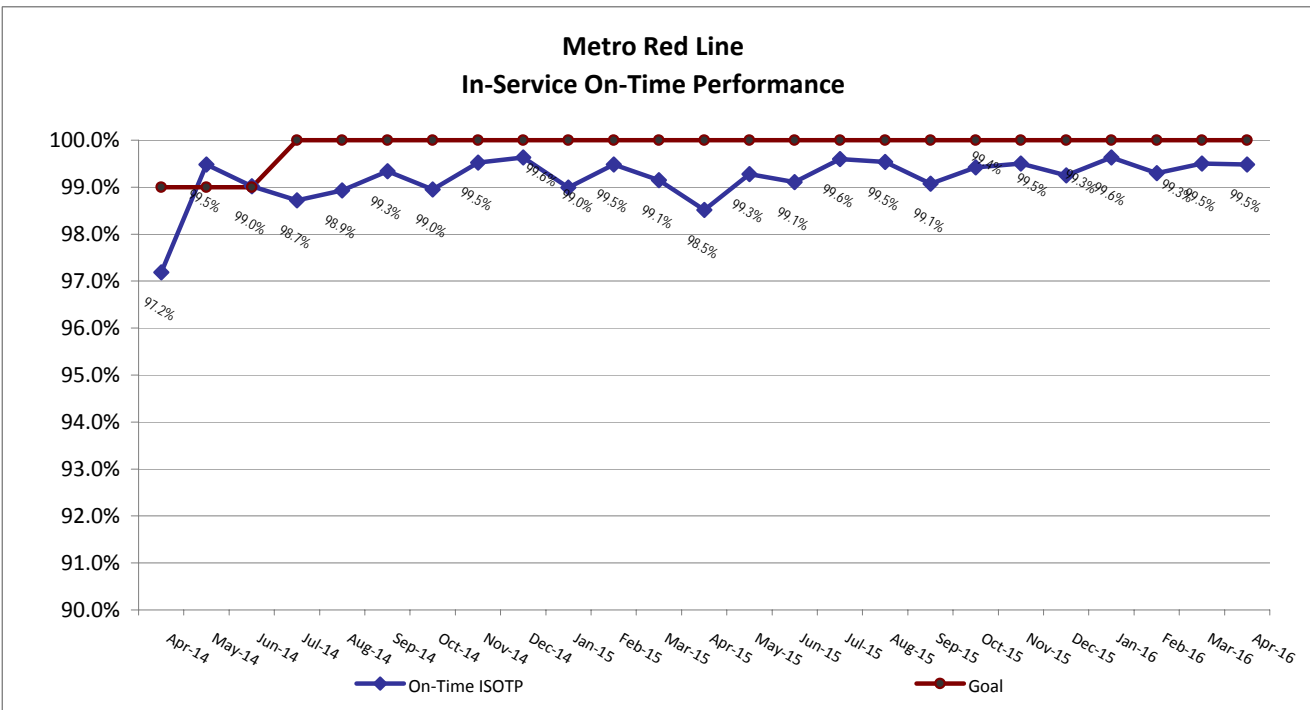
COMPLIANCE WITH SCHEDULED TRAIN MILES CHART



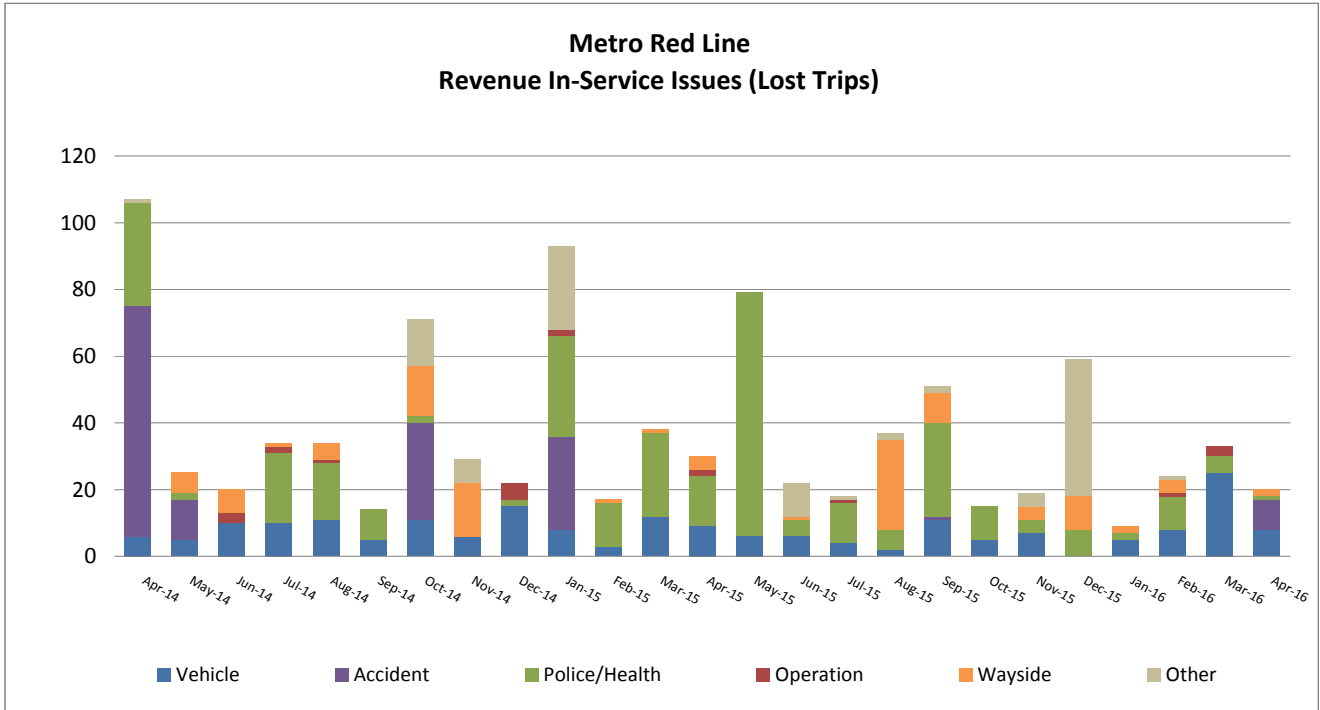
ON-TIME PULL OUTS CHART



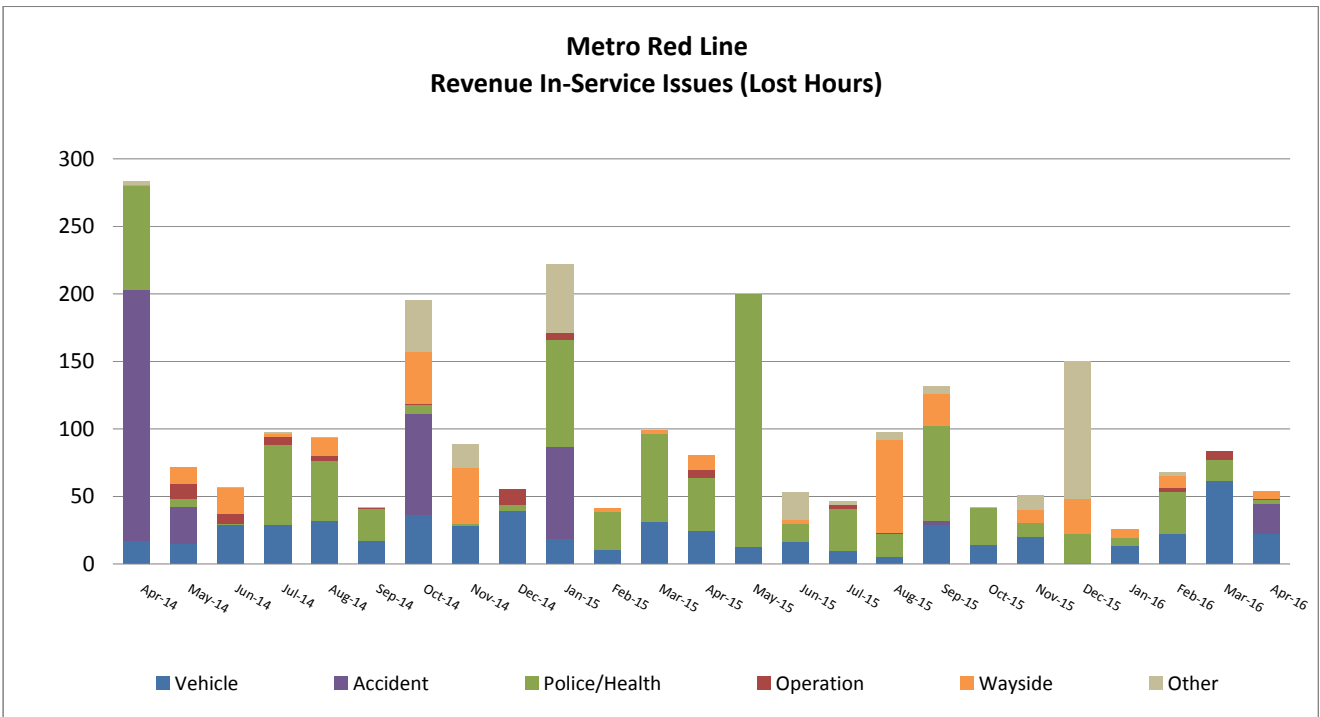
IN-SERVICE ON-TIME PERFORMANCE CHART



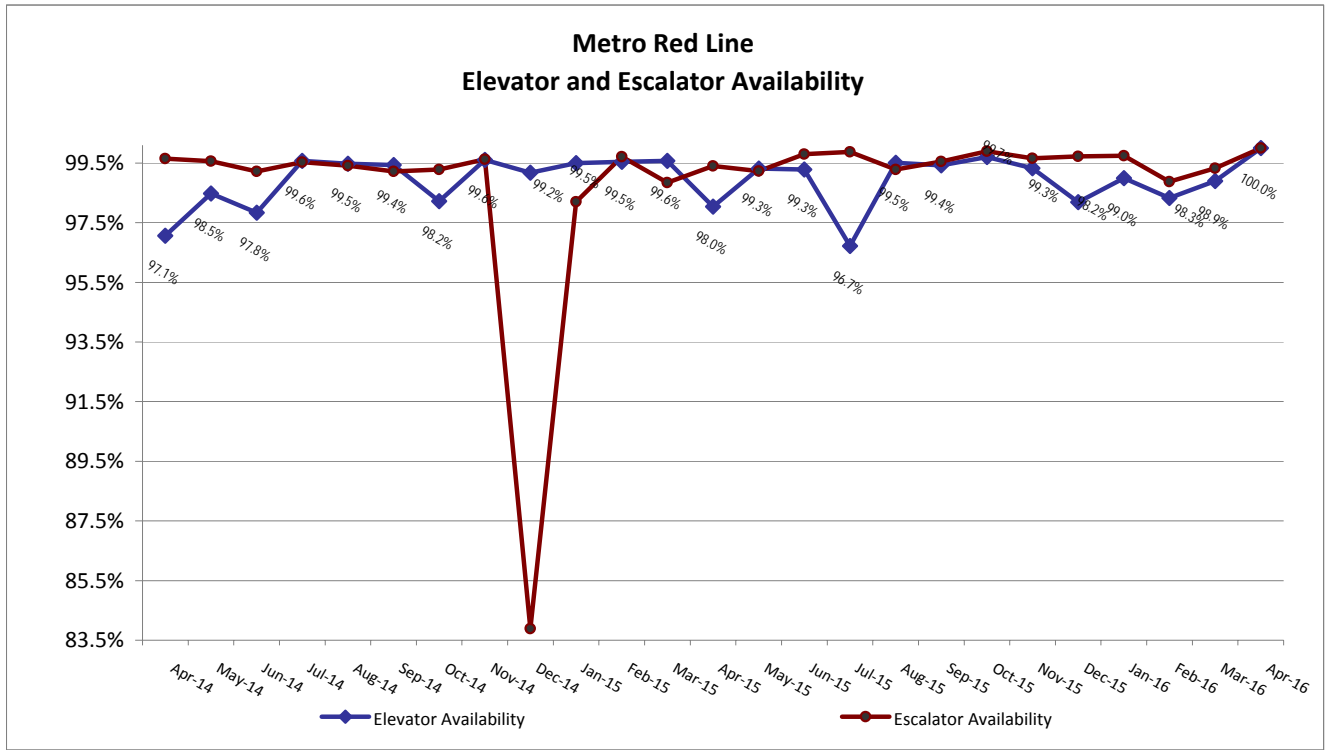
Lost Trips



Lost Hours



VERTICAL TRANSPORTATION AVAILABILITY



GREEN LINE

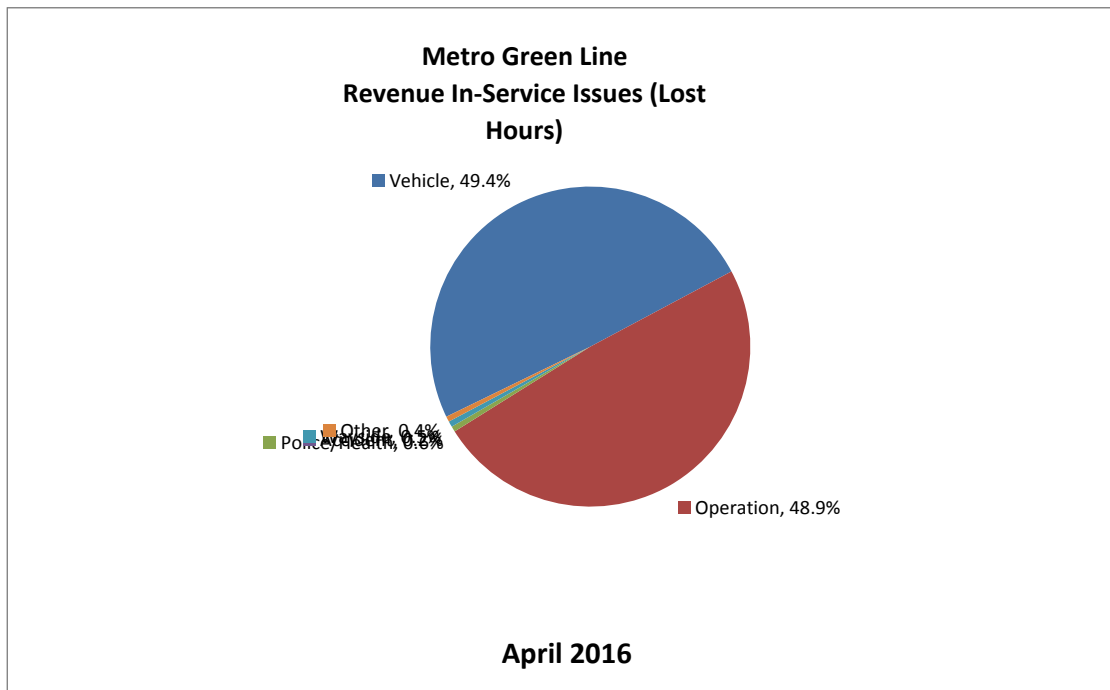
Out of a total of 7,624 hours operated, there were approximately 51 total hours of service delays.

April 2016 Service Hours

Revenue Hours without Delays	7,573	99.3%
Hours Delayed	51	0.7%
Total Revenue Hours	7,624	100.0%

Summary of the major contributors:

Operations	25.1	48.9%
Accidents	0.1	0.2%
Vehicle	25.4	49.4%
Wayside	0.3	0.5%
Police & Health	0.3	0.6%
Other	0.2	0.4%
Total	51.4	100.0%



April 2016 Green Line major delay contributors were as follows:

04/23/2016

Train 341 broke down at Norwalk IL Westbound. Control authorized for ATP bypass and operator reset at Lakewood, then offloaded. Turnback operations and single tracking implemented. At 0900 hrs, the train was removed from the mainline. 3 trips canceled with a max delay of 20 mins.

04/22/2016

Train 351 departing Marine station E/B experienced emergency brakes unable to clear, operator troubleshooting reversed ends and proceeded back to platform. 2 trips canceled with a max delay of 7 minutes.

04/18/2016

Train 335 reported no movement with no indications on Car 207 Eastbound at Vermont East interlocking. Single track operations implemented from Vermont to Wilmington West. 1421 hrs, Train 335 regained movement Westbound and offloaded at Vermont Station. 1 trip canceled with a max delay of 26 mins.

04/18/2016

Train 335 reported no movement with no indications on Car 207 Eastbound at Vermont East interlocking. Single track operations implemented from Vermont to Wilmington West. 1421 hrs, Train 335 regained movement Westbound and offloaded at Vermont Station. 1 trip canceled with a max delay of 26 mins.

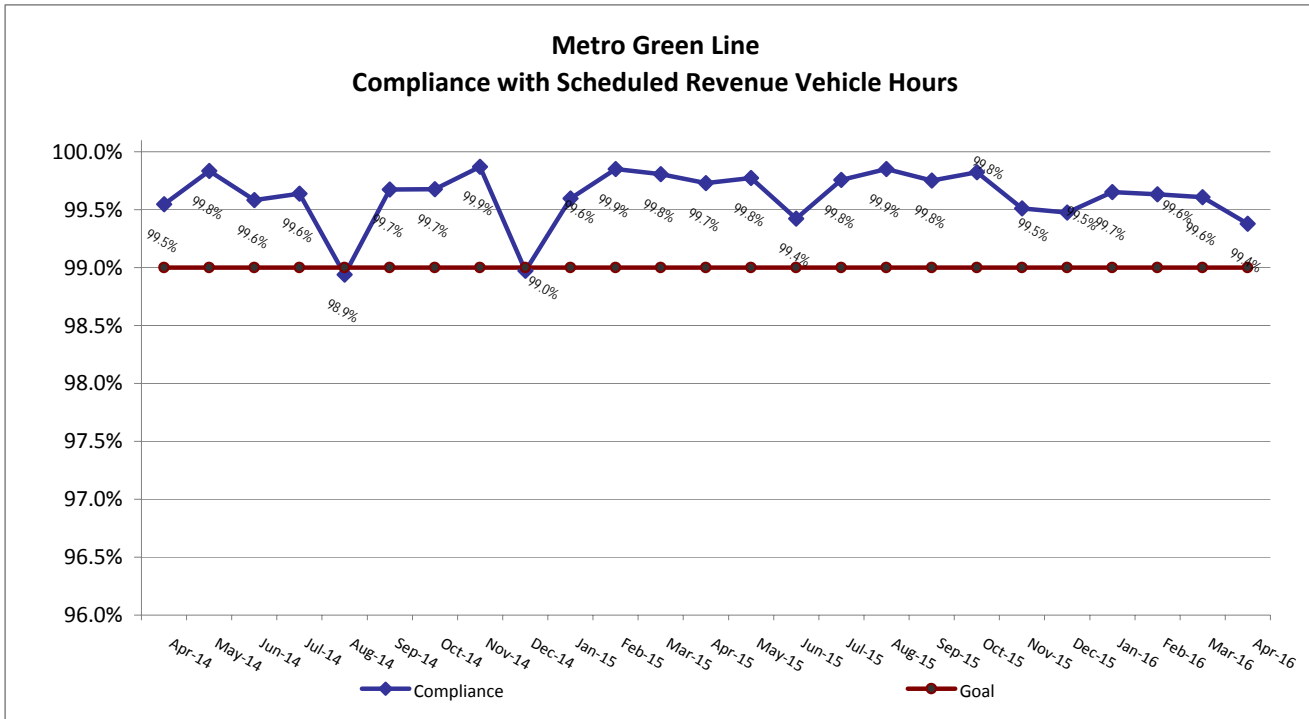
Yard Operations:

04/17/2016

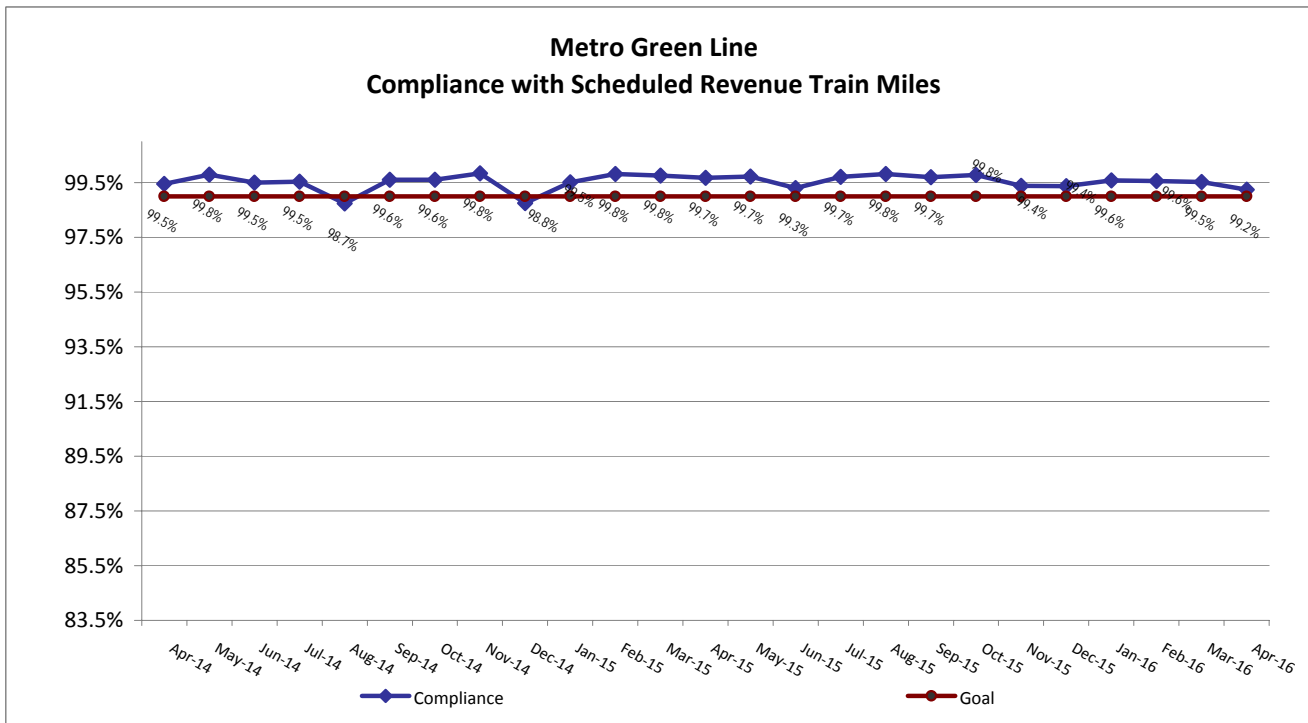
Green Line Yard Control has informed Main Line Control that train roll-out will not be met due to a lack in man power. An augment to Summary M-294 was made to support a 20 minute headway on the east end of the mainline. Normal operations resumed at 1630 hrs. 22 trips canceled with a max delay of 15 mins.

MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS

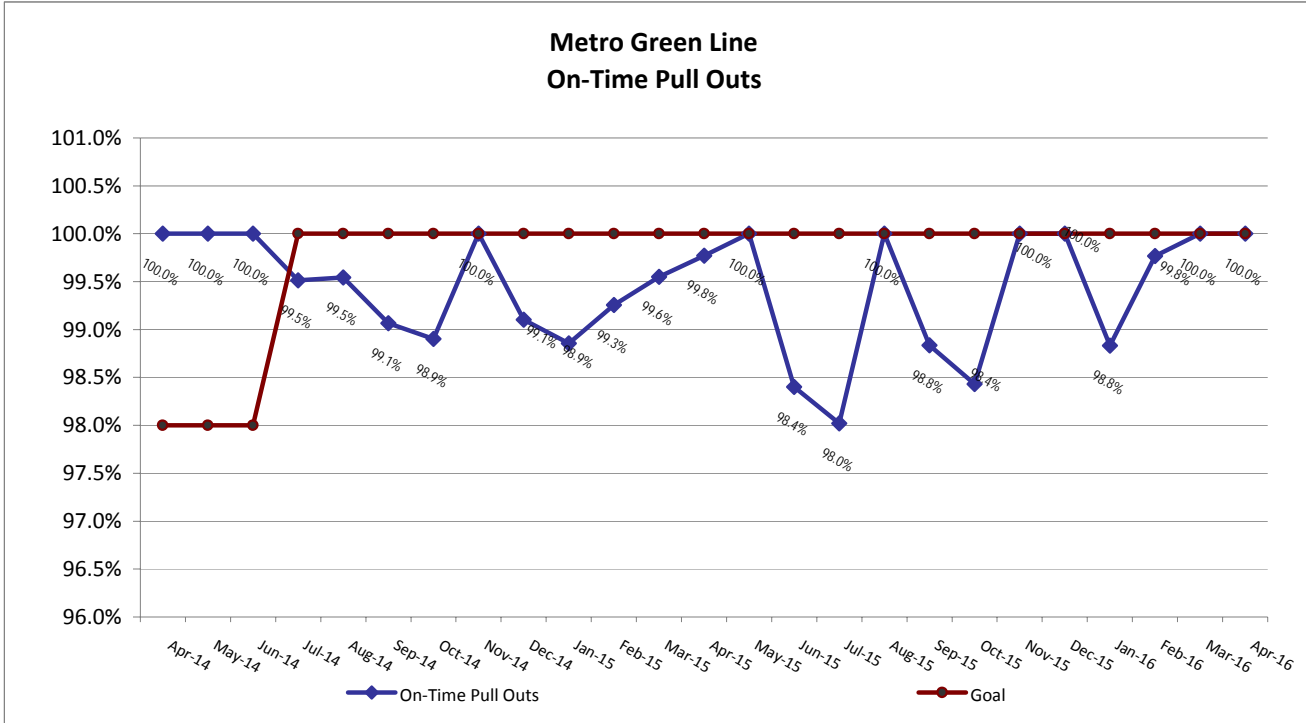
COMPLIANCE WITH SCHEDULED VEHICLE HOURS CHART



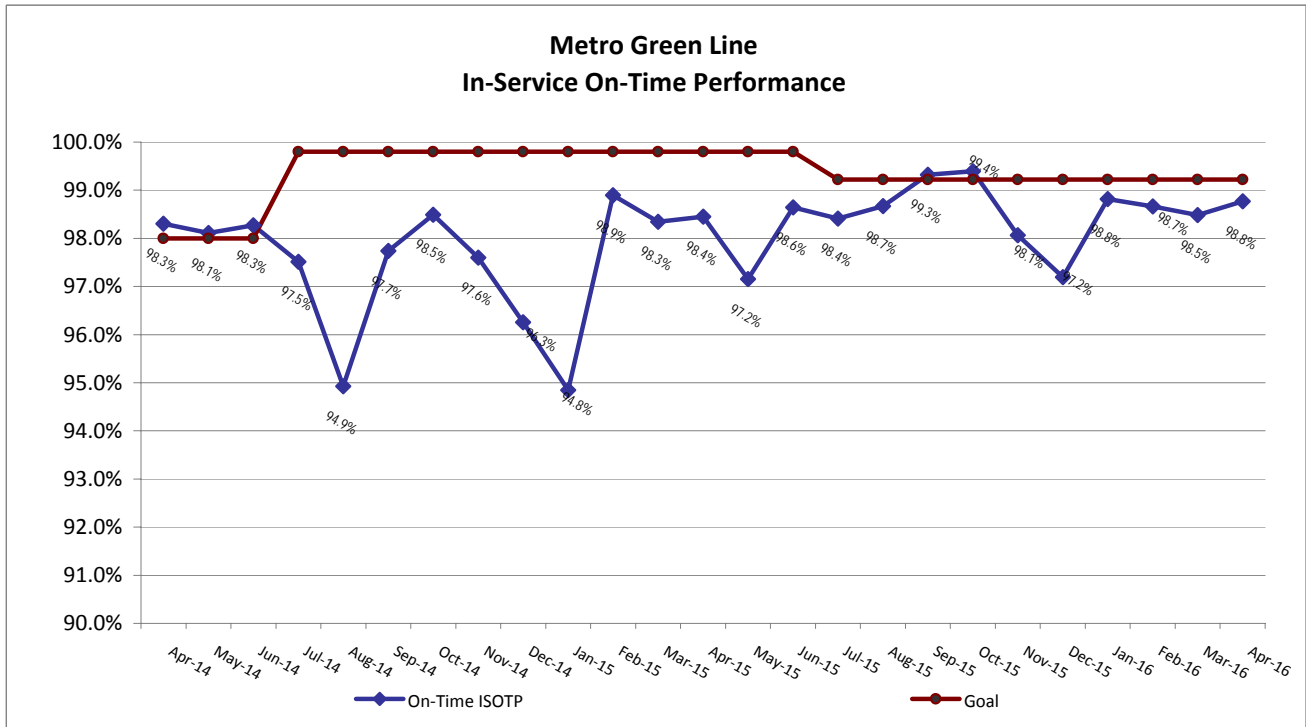
COMPLIANCE WITH SCHEDULED TRAIN MILES CHART



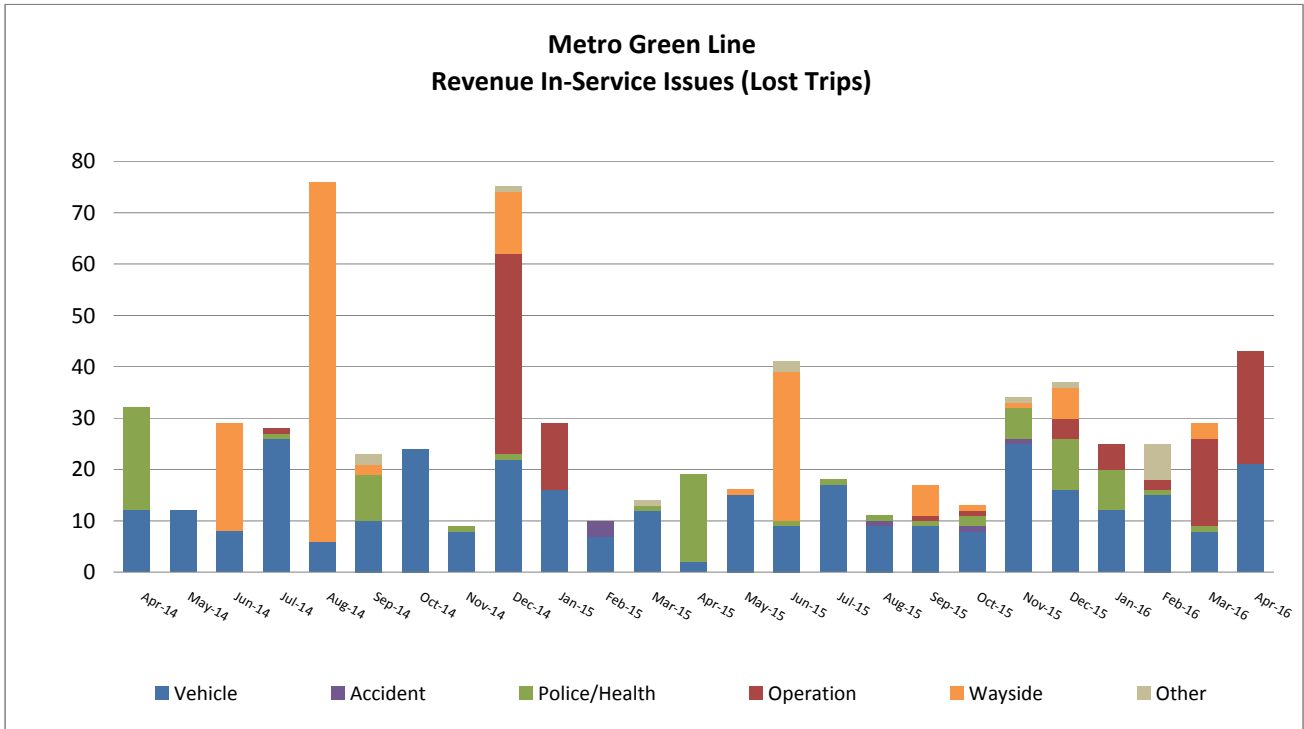
ON-TIME PULL OUTS CHART



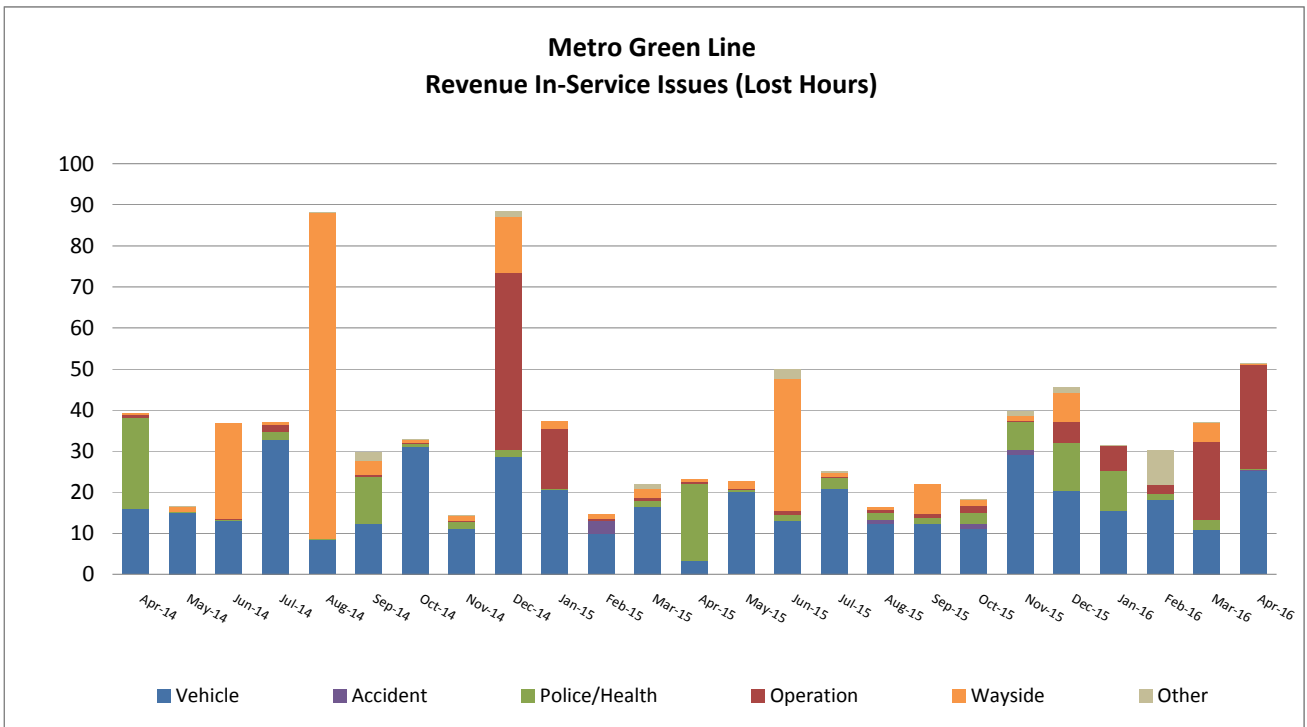
IN-SERVICE ON-TIME PERFORMANCE CHART



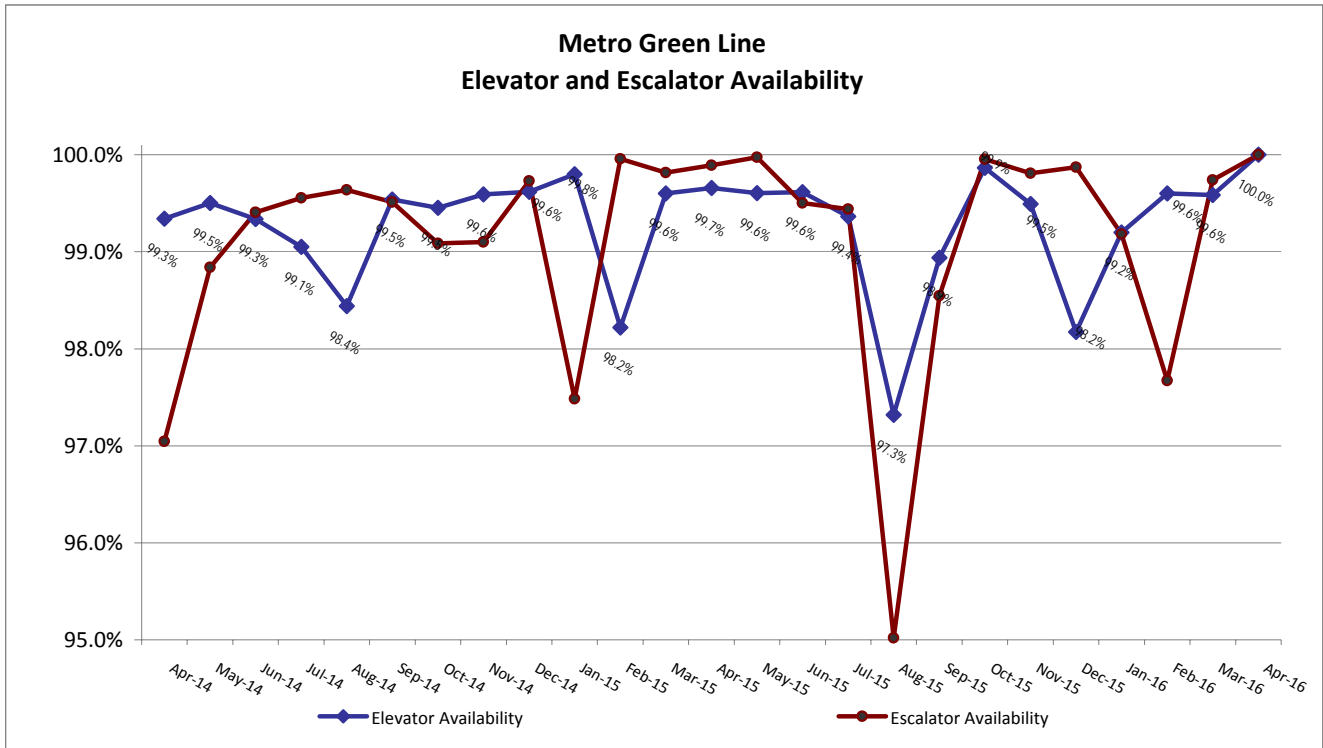
Lost Trips



Lost Hours



VERTICAL TRANSPORTATION AVAILABILITY



GOLD LINE

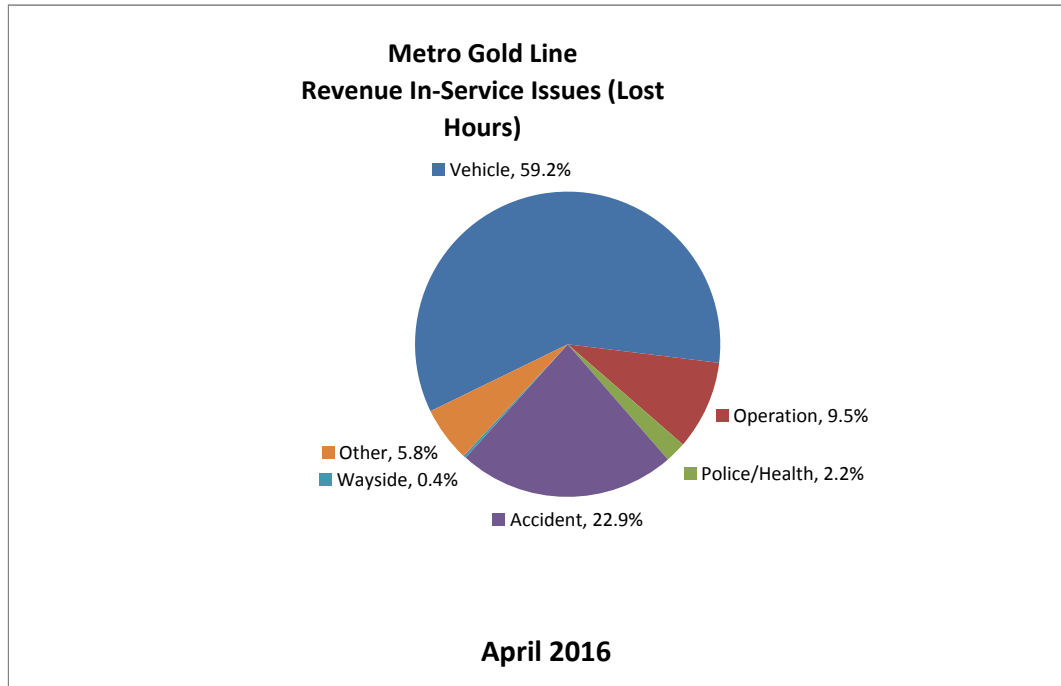
Out of a total of 20,274 hours operated, there were approximately 91 total hours of service delays.

April 2016 Service Hours

Revenue Hours without Delays	20,182	99.6%
Hours Delayed	91	0.4%
Total Revenue Hours	20,274	100.0%

Summary of the major contributors:

Operations	8.6	9.5%
Accidents	20.9	22.9%
Vehicle	54.0	59.2%
Wayside	0.3	0.4%
Police & Health	2.0	2.2%
Other	5.3	5.8%
Total	91.2	100.0%



April 2016 Gold Line major delay contributors were as follows:

Accident:

04/13/2016

Train 424 reported a Train vs auto at Alameda and Temple Southbound with no injuries. Turnback and single tracking operations implemented. At 1636 hrs, the incident train was released and train was removed off the mainline at Division 21. 7 trips canceled with a max delay of 14 mins.

04/23/2016

Train 434 reported contact with a Vehicle at 3rd and Arizona Track #1. The Vehicle fled the scene. Turnback and single track operations implemented. Train 434 was relocated to Maravilla Station Northbound to off load passengers @ 1946 hrs. Normal operations resumed. 3 trips canceled with a max delay of 42 mins.

04/02/2016

Train 423 reported a collision with a motor vehicle at Ave 45 Grade crossing Southbound. Single tracking operations implemented. The vehicle attempted to move around crossing gates at Ave 45 entered the path of train 423. LASD/LAPD released incident train as of 1335 hours. 140 patrons aboard incident train were taken to Southwest Museum Station and offloaded. 1 trip canceled with a max delay of 53 mins to patrons aboard incident train.

04/16/2016

Train 432 reported an accident with Auto at Southbound at 3rd and Arizona. Single tracking operations implemented. At 1307 hrs, the incident train was been cleared by CHP to relocate to Atlantic Station to offload passengers. 1 trip canceled with a max delay of 36 mins.

Operations:

04/06/2016

Train 424 was delayed at Atlantic station due to unexplained loss of radio communication. Track personnel were working at Atlantic Interlocking requiring all trains to be authorized North from Atlantic Station by Control. The Operator eventually called from the operators' room for authorization to proceed. 20 mins max delay.

Police/Health:

04/17/2016

Train 425 reported a traffic accident at Marmion Way and Ave 43 vehicle fouling track 2. Single track operations and turnback operations implemented from Southwest Museum to Baker interlocking. At 0930 hrs, the vehicle was extracted from the right of way and normal operations resumed. 1 trips canceled 30 trips affected with a max delay of 20 mins.

Vehicle Maintenance:

04/04/2016

Train 438 no movement at Mariachi station consist not able to get cab signals, B.O. placed in Atlantic tail track no equipment available for replacement. Train 438 was off loaded and placed out of service. 3 trips canceled with a max delay of 15 mins.

04/20/2016

Train 435 departing Atlantic station CB1 tripped, operator reset proceeding northbound, no replacement from Div 21, Div. 24 accomodated replacement. Offloaded 35 minute delay. 2 trips canceled with a max delay of 35 mins.

04/10/2016

Train 436 no movement smoke coming from trailing car 714 at Ave. 57, single tracking in effect, one S/B and one N/B trip cancelled. 15 minute delay. 2 trips canceled with a max delay of 15 mins.

04/30/2016

Train 427 reported a Master controller pin came out on car (720A) Southbound at Duarte Station. Train 427 offloaded 25-30 patrons and pulled in to Division 24. No Operators in the both yards for replacement/relay. Canceled southbound trip to Atlantic. 2 trips canceled with a max delay of 15 mins.

04/01/2016

Kinkisharyo Car 1015 and 1016 reported a propulsion faults at Atlantic station C1015-1016. The train regained movement. one train turned back at Union station. 12 minute delay. 2 trips canceled with a max delay of 12 mins.

04/26/2016

Train 427 reported Car 740 had a prop fault Southbound at Memorial Park. Train offloaded at Fillmore and pull-in to Div. 24. 2 trips canceled with max delay of 10 mins.

04/26/2016

Train 441 reported an LVPS/APS Fault as well as an air compressor fault on Car 731 Northbound Sierra Madre Station. A Veh Tech indicated the train needed to be removed from revenue service. 2 trips canceled with max delay of 6 mins.

04/17/2016

Train 439 reported a n ATP failure on Car 1009 Southbound at Chinatown Station. Per the Kinkisharyo tech, the train needs to be placed out of service. Train 439 offloaded and was placed out of service at Little Tokyo station southbound. On route to Atlantic Tail track, Train 439 lost movement at the Dittman Interlocking. Single tracking operations implemented. At 1315, the train regained movement and continued to Atlantic. 1 trip canceled with a max delay of 20 mins.

04/24/2016

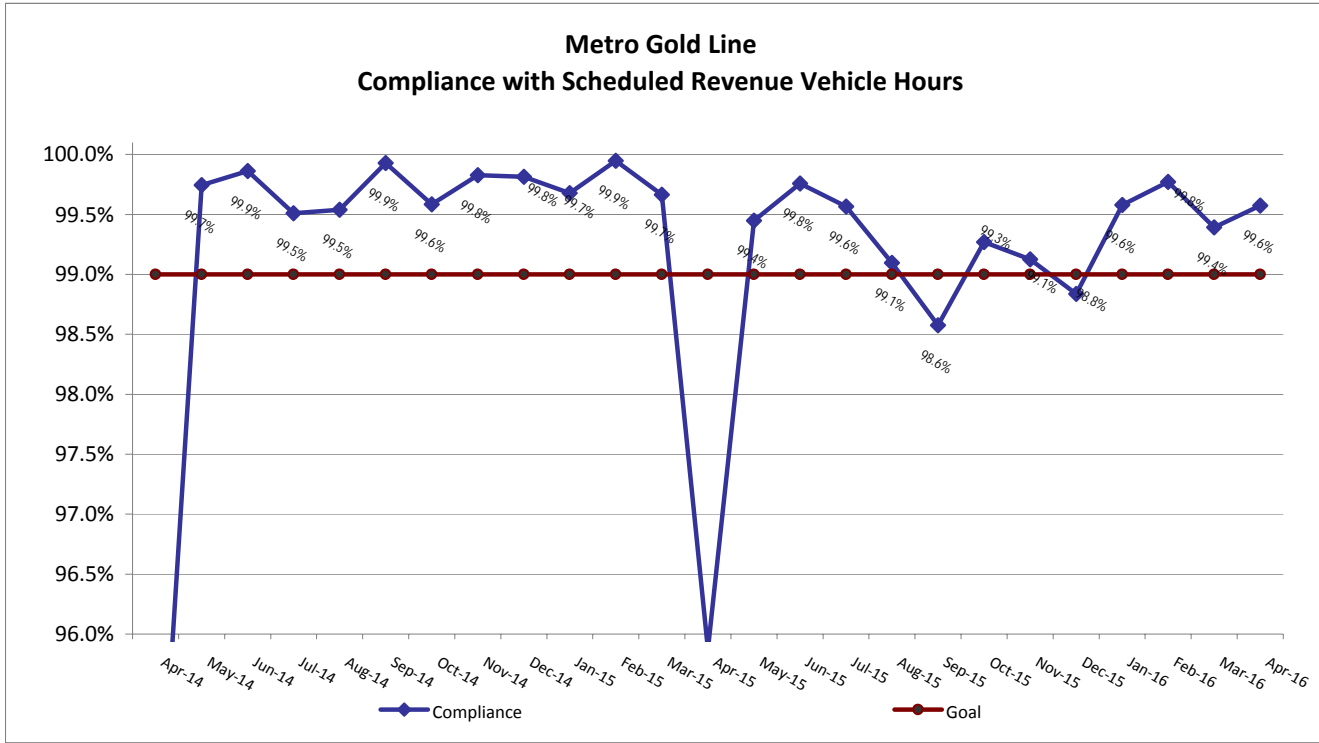
Sweep Train 421 reported smoking brakes on Car 725 Southbound at Southwest Museum Station. Single Track operations implemented. Train 420 at Atlantic will stay a single car for service north. 1 trip canceled with 20 mins.

04/24/2016

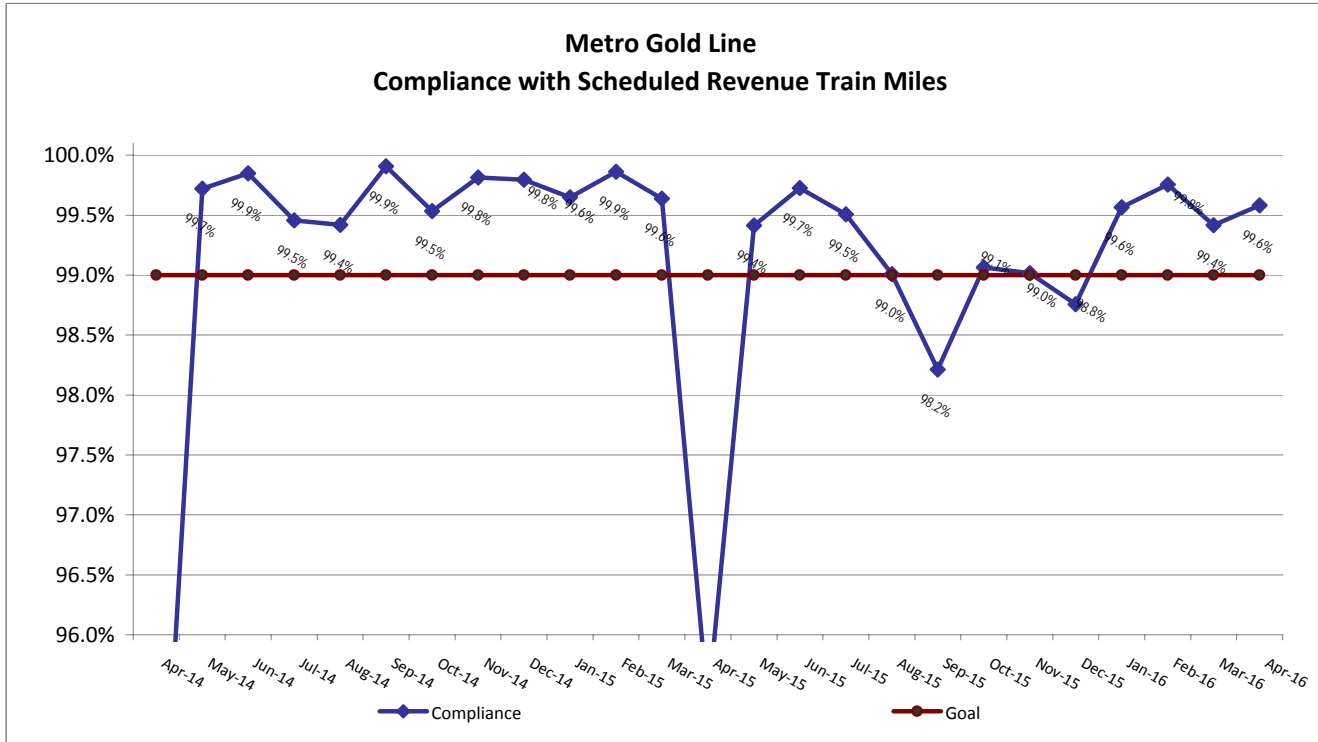
Train 440 reported smoking brakes in car 712 Northbound at Fillmore station. Train 440 was offloaded and canceled. 1 trip canceled with 20 mins.

MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS

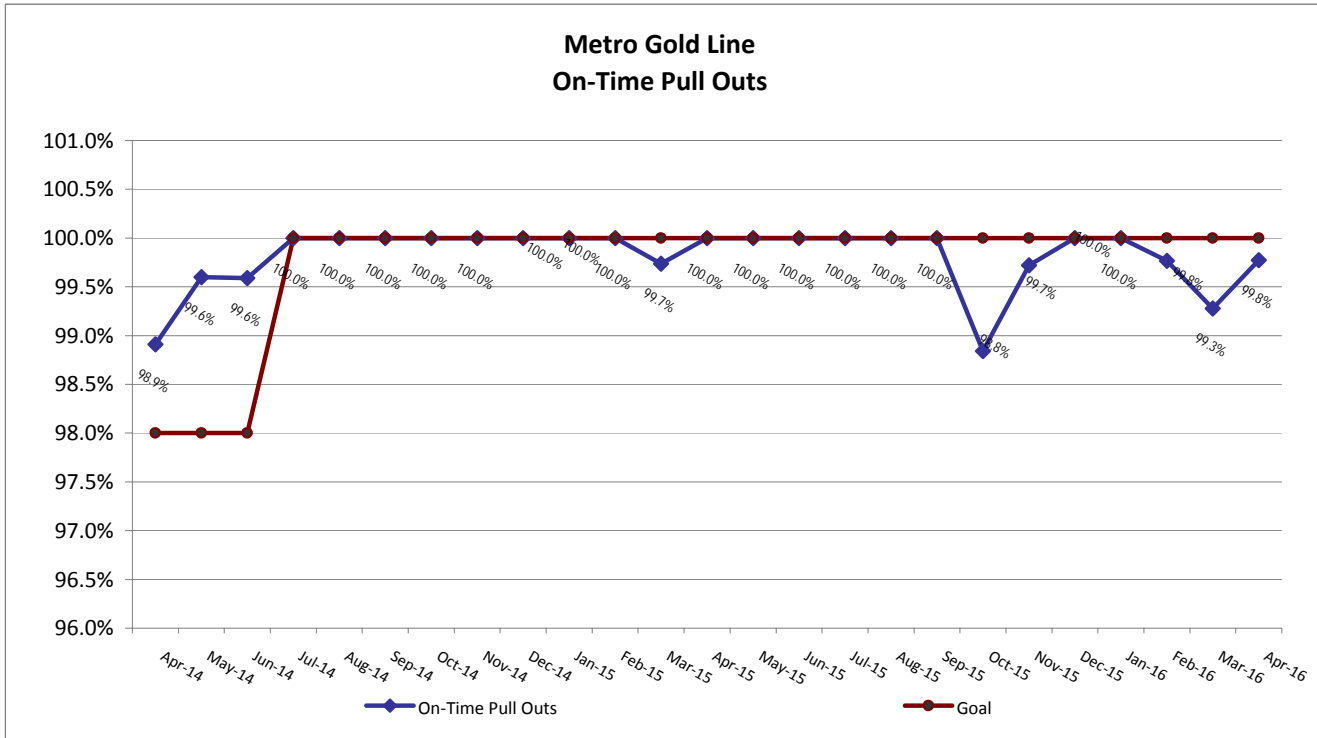
COMPLIANCE WITH SCHEDULED VEHICLE HOURS CHART



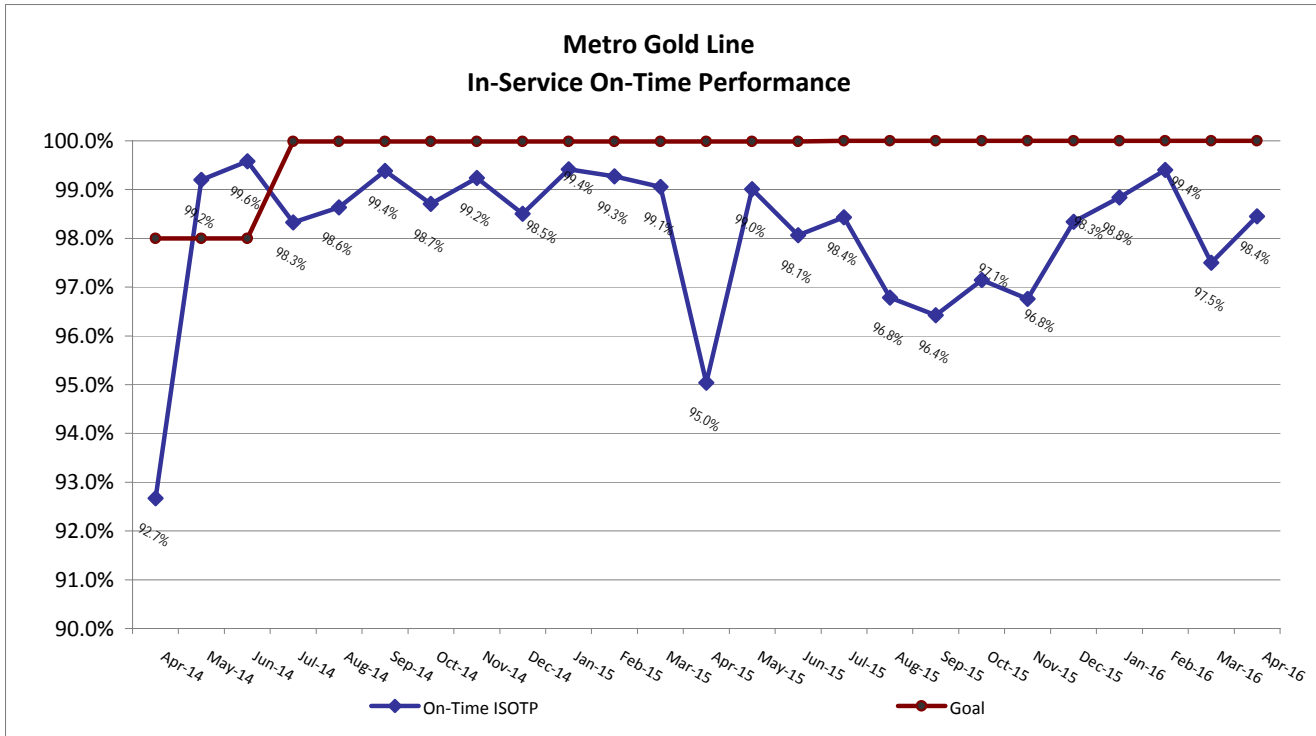
COMPLIANCE WITH SCHEDULED TRAIN MILES CHART



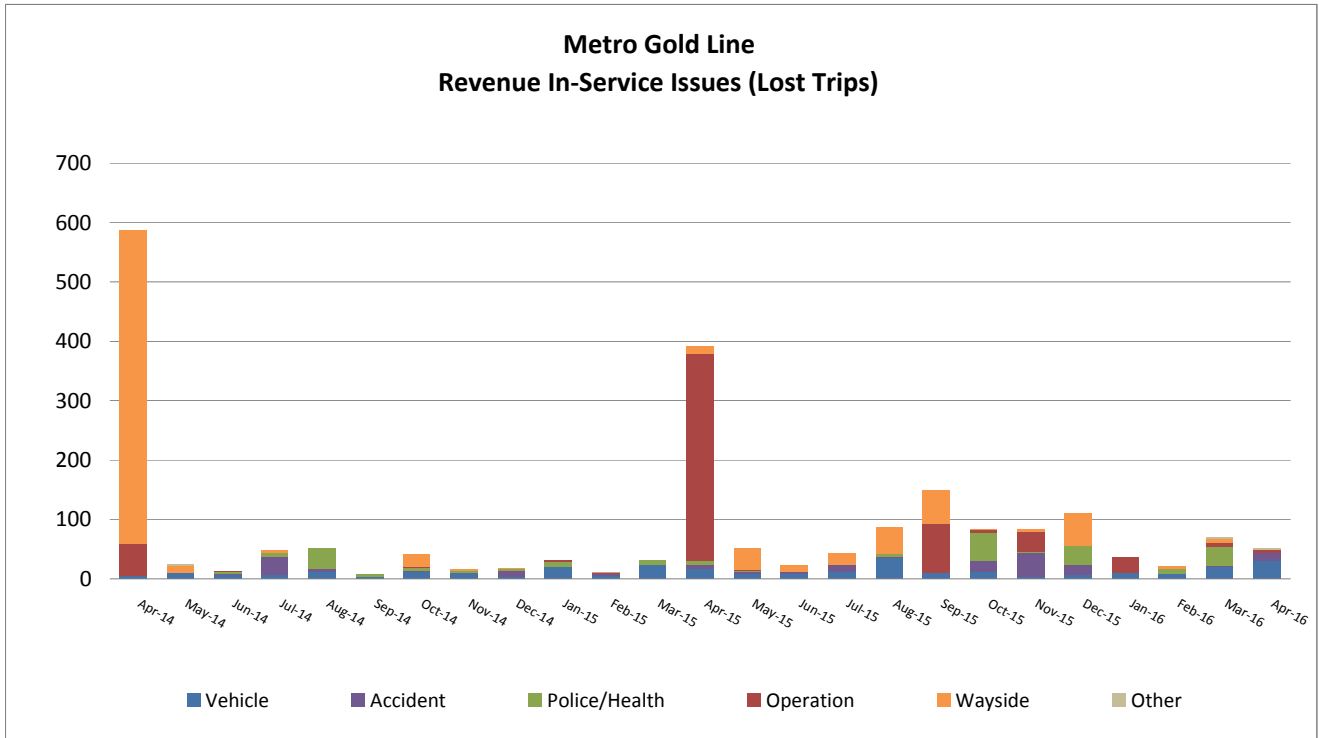
ON-TIME PULL OUTS CHART



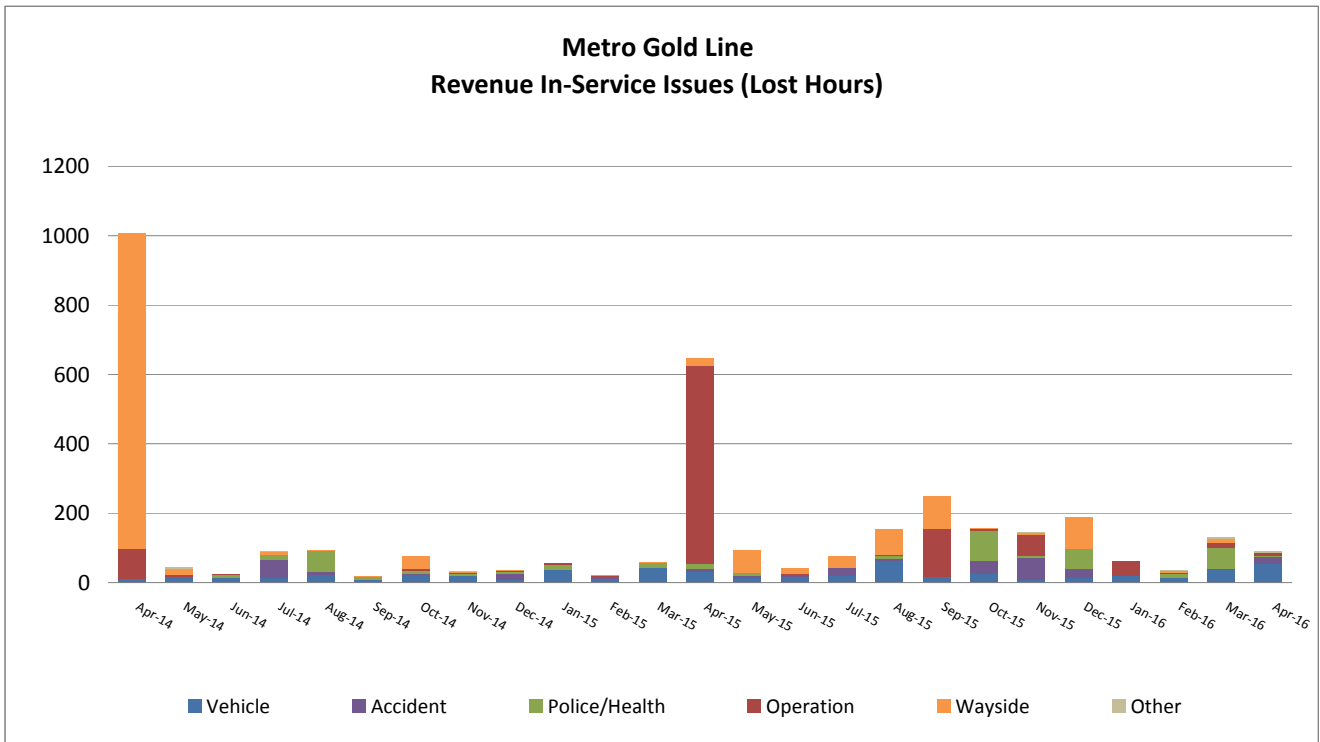
IN-SERVICE ON-TIME PERFORMANCE CHART



Lost Trips



Lost Hours



VERTICAL TRANSPORTATION AVAILABILITY

