

Los Angeles County
Metropolitan Transportation Authority
California

OPERATIONS MONTHLY RAIL PERFORMANCE REPORT

OCTOBER 2019



METRO RAIL PERFORMANCE – OCTOBER 2019

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Metro Rail Scorecard Overview

Metro operates heavy rail, the Red and Purple Lines, from Union Station to North Hollywood and Union Station to Wilshire/Western. Data for Red and Purple lines are reported under Metro Red line in this report. Metro also operates four light rail lines: Blue Line from Downtown to Long Beach, Green Line along the 105 freeway, Gold Line from Azusa to East Los Angeles, and Expo Line from Los Angeles to Santa Monica. Metro Rail is responsible for the operation of approximately 104 heavy rail cars and 203 light rail cars carrying nearly 110 million passengers each year. Also included in this report are Key Performance Indicators for Wayside, which is in the process of being developed.

Measurement	FY 2017	FY 2018	FY 2019	FY 2020 Target	FY 2020 YTD	FYTD Status	Aug Month	Sep Month	Oct Month
Systemwide									
On-Time Pullouts	99.61%	99.68%	99.72%	99.80%	99.65%	●	99.72%	99.79%	99.54%
Mean Miles Between Chargeable Mechanical Failures ³	29,711	31,146	39,034	44,540	39,940	●	39,287	44,583	40,179
In-Service On-time Performance	98.24%	98.48%	98.81%	99.10%	98.93%	●	98.77%	99.02%	99.04%
Service Delivery Ratio	99.23%	99.22%	99.56%	99.70%	99.71%	●	99.60%	99.73%	99.69%
Traffic Accidents Per 100,000 Train Miles	1.01	0.96	0.68	0.85	0.75	●	0.94	0.33	1.08
CPUC Reportable Accidents per 100,000 Train Miles	0.36	0.54	0.29	0.37	0.47	●	0.47	0.16	0.93
Passenger Accidents per 100,000 Boardings	0.023	0.022	0.014	0.010	0.007	●	0.000	0.000	0.000
Complaints per 100,000 Boardings	1.98	1.81	1.83	1.10	1.56	●	1.32	1.86	1.44
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours ^{1,2}	12.27	11.17	11.43	10.05	13.26	●	18.43	11.56	17.95
Lost Work Days per 200,000 Exposure Hours ^{1,2}	733	886	800	821.44	886	●	839	988	-
OSHA Injuries per 200,000 Exposure Hours ^{1,2}	8.53	7.61	7.23	6.43	8.48	●	10.14	10.60	-
Wayside Maintenance & Engineering									
Past-Due Preventive Maintenance - Aging of Outstanding Work Orders	1	3	42	N/A	134	N/A	18	31	55
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours	5.35	5.02	5.31	5.40	7.76	●	16.99	10.75	0.00
Lost Work Days per 200,000 Exposure Hours ¹	194	312	218	296	92	●	102	61	0
OSHA Injuries per 200,000 Exposure Hours ¹	4.01	4.01	3.84	4.13	7.02	●	10.19	7.17	0
Blue Line									
On-Time Pullouts	99.60%	99.39%	99.46%	99.50%	99.58%	●	100.00%	99.44%	100.00%
Mean Miles Between Chargeable Mechanical Failures ³	15,405	13,772	22,391	22,391	83,327	●	173,761	30,401	81,831
In-Service On-time Performance	96.44%	97.11%	98.13%	98.80%	99.63%	●	99.35%	99.88%	99.60%
Service Delivery Ratio	98.54%	98.42%	99.31%	99.40%	99.78%	●	99.52%	99.92%	99.88%
Traffic Accidents Per 100,000 Train Miles	2.18	1.63	1.05	1.84	2.11	●	1.67	0.00	3.33
CPUC Reportable Accidents per 100,000 Train Miles	0.71	1.03	0.38	0.40	1.69	●	1.67	0.00	3.33
Passenger Accidents per 100,000 Boardings	0.046	0.033	0.013	0.010	0.000	●	0.000	0.000	0.000
Complaints per 100,000 Boardings	1.67	2.22	1.73	1.40	2.43	●	1.17	3.89	1.73
New Workers' Compensation Indemnity Claims per	16.74	13.95	14.22	11.90	15.29	●	18.42	6.29	17.70
Lost Work Days per 200,000 Exposure Hours ¹	836	1,016	695	953	1,061	●	1,476	954	-
OSHA Injuries per 200,000 Exposure Hours ¹	10.40	8.10	5.96	5.93	6.19	●	12.28	0.00	-

¹ There is a One Month lag in reporting this data

² Includes Operations, RFS and Wayside

³ MMBMF for each line is based on Actual Vehicle Revenue Miles since hub miles are not available by the line operated. Vehicles from Division 11 may operate on the Expo or Blue Line.

● Green - High probability of achieving the target (on track). Meets Target at 100% or better.

● Yellow - Uncertain if the target will be achieved -- slight problems, delays or management issues. Falls below Target 70 - 99%.

● Red - High probability that the target will not be achieved -- significant problems and/or delays. Falls below Target >70%.

N/A = Not Available

Measurement	FY 2017	FY 2018	FY 2019	FY 2020 Target	FY 2020 YTD	FYTD Status	Aug Month	Sep Month	Oct Month
Red Line									
On-Time Pullouts	99.95%	99.88%	99.85%	100.00%	99.90%	●	100.00%	100.00%	100.00%
Mean Miles Between Chargeable Mechanical Failures ³	104,637	68,407	58,255	94,165	52,257	●	50,065	72,273	54,195
In-Service On-time Performance	99.39%	99.33%	99.41%	99.70%	99.56%	●	99.47%	99.64%	99.67%
Service Delivery Ratio	99.72%	99.65%	99.73%	100.00%	99.77%	●	99.79%	99.79%	99.79%
Traffic Accidents Per 100,000 Train Miles	0.57	0.64	0.57	0.57	0.21	●	0.00	0.86	0.00
CPUC Reportable Accidents per 100,000 Train Miles	0.14	0.21	0.28	0.21	0.00	●	0.00	0.00	0.00
Passenger Accidents per 100,000 Boardings	0.004	0.000	0.002	0.000	0.007	●	0.000	0.000	0.000
Complaints per 100,000 Boardings	1.19	1.16	1.35	0.55	0.72	●	0.70	0.76	0.75
New Workers' Compensation Indemnity Claims per	12.68	11.80	14.74	10.80	8.64	●	5.65	6.03	17.01
*Lost Work Days per 200,000 Exposure Hours	992	827	755	809	675	●	694	623	-
*OSHA Injuries per 200,000 Exposure Hours	7.52	4.99	9.67	3.89	5.79	●	0.00	12.06	-

Green Line									
On-Time Pullouts	99.69%	99.59%	99.85%	99.70%	99.37%	●	99.76%	100.00%	98.73%
Mean Miles Between Chargeable Mechanical Failures ³	16,375	21,614	22,144	22,651	22,423	●	20,446	19,532	25,914
In-Service On-time Performance	98.69%	98.72%	98.76%	99.00%	98.51%	●	98.80%	98.54%	98.69%
Service Delivery Ratio	99.61%	99.38%	99.70%	100.00%	99.81%	●	99.75%	99.80%	99.81%
Traffic Accidents Per 100,000 Train Miles	0.48	0.34	0.25	0.35	0.19	●	0.78	0.00	0.00
CPUC Reportable Accidents per 100,000 Train Miles	0.07	0.00	0.06	0.40	0.00	●	0.00	0.00	0.00
Passenger Accidents per 100,000 Boardings	0.048	0.010	0.021	0.010	0.000	●	0.000	0.000	0.000
Complaints per 100,000 Boardings	2.08	1.69	2.08	1.20	2.37	●	2.68	1.98	2.20
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours	9.14	12.87	6.82	11.52	13.31	●	26.43	17.98	8.58
*Lost Work Days per 200,000 Exposure Hours	712	984	1,321	930	1,005	●	916	997	-
*OSHA Injuries per 200,000 Exposure Hours	6.65	9.84	5.31	8.70	8.98	●	17.62	8.99	-

Gold Line									
On-Time Pullouts	99.82%	99.84%	99.58%	100.00%	99.76%	●	99.46%	99.70%	100.00%
Mean Miles Between Chargeable Mechanical Failures ³	38,427	43,588	40,584	49,281	36,052	●	38,533	74,537	32,936
In-Service On-time Performance	97.61%	98.19%	98.50%	98.80%	97.47%	●	96.78%	97.27%	98.41%
Service Delivery Ratio	98.88%	99.07%	99.39%	99.50%	99.53%	●	99.22%	99.47%	99.58%
Traffic Accidents Per 100,000 Train Miles	0.61	0.55	0.55	0.51	0.70	●	0.91	0.00	0.92
CPUC Reportable Accidents per 100,000 Train Miles	0.25	0.26	0.25	0.40	0.35	●	0.46	0.00	0.46
Passenger Accidents per 100,000 Boardings	0.030	0.086	0.044	0.010	0.021	●	0.000	0.000	0.000
Complaints per 100,000 Boardings	2.77	2.65	2.71	1.80	2.73	●	2.01	3.34	2.35
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours	14.31	14.24	14.15	11.67	24.37	●	25.75	21.34	48.90
*Lost Work Days per 200,000 Exposure Hours	1,055	1,146	1,391	993	2,153	●	1,578	3,009	-
*OSHA Injuries per 200,000 Exposure Hours	9.69	11.87	10.61	8.94	15.65	●	15.45	26.67	-

Expo Line									
On-Time Pullouts	98.76%	99.71%	99.87%	99.70%	99.54%	●	99.69%	99.69%	99.17%
Mean Miles Between Chargeable Mechanical Failures ³	33,402	57,013	93,728	93,278	43,481	●	32,641	37,125	44,227
In-Service On-time Performance	98.48%	98.72%	98.93%	98.90%	99.09%	●	99.02%	99.34%	98.47%
Service Delivery Ratio	99.46%	99.54%	99.67%	99.80%	99.76%	●	99.76%	99.82%	99.53%
Traffic Accidents Per 100,000 Train Miles	1.26	1.78	1.19	1.26	1.36	●	1.79	0.95	2.70
CPUC Reportable Accidents per 100,000 Train Miles	0.63	1.30	0.56	0.40	1.14	●	0.89	0.95	2.70
Passenger Accidents per 100,000 Boardings	0.018	0.010	0.010	0.010	0.000	●	0.000	0.000	0.000
Complaints per 100,000 Boardings	3.68	2.20	2.11	1.40	1.95	●	1.51	2.74	1.90
New Workers' Compensation Indemnity Claims per	19.26	12.57	16.21	11.84	12.52	●	20.93	7.38	20.96
*Lost Work Days per 200,000 Exposure Hours	887	1,470	980	1,343	725	●	749	577	-
*OSHA Injuries per 200,000 Exposure Hours	16.60	9.92	9.73	9.92	7.21	●	6.98	7.38	-

* There is One Month lag in reporting this data

³ MMBMF for each line is based on Actual Vehicle Revenue Miles since hub miles are not available by the line operated.

Vehicles from Division 11 may operate on the Expo or Blue Line.

● Green - High probability of achieving the target (on track). Meets Target at 100% or better.

● Yellow - Uncertain if the target will be achieved -- slight problems, delays or management issues. Falls below Target 70 - 99%.

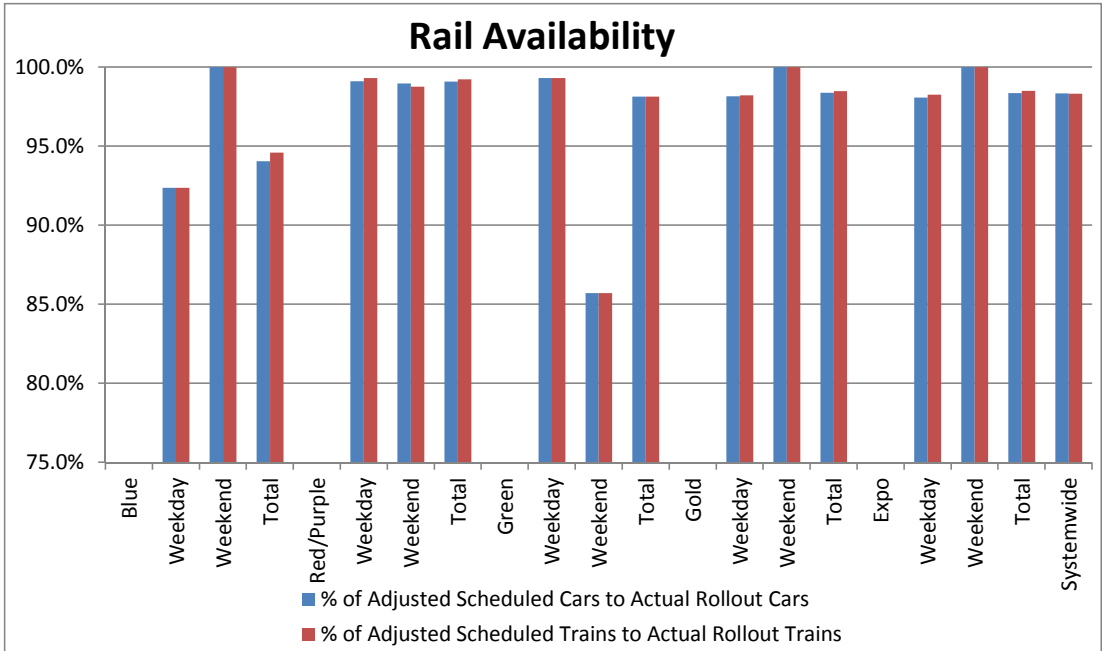
● Red - High probability that the target will not be achieved -- significant problems and/or delays. Falls below Target >70%.

N/A = Not Available

Vehicle Availability

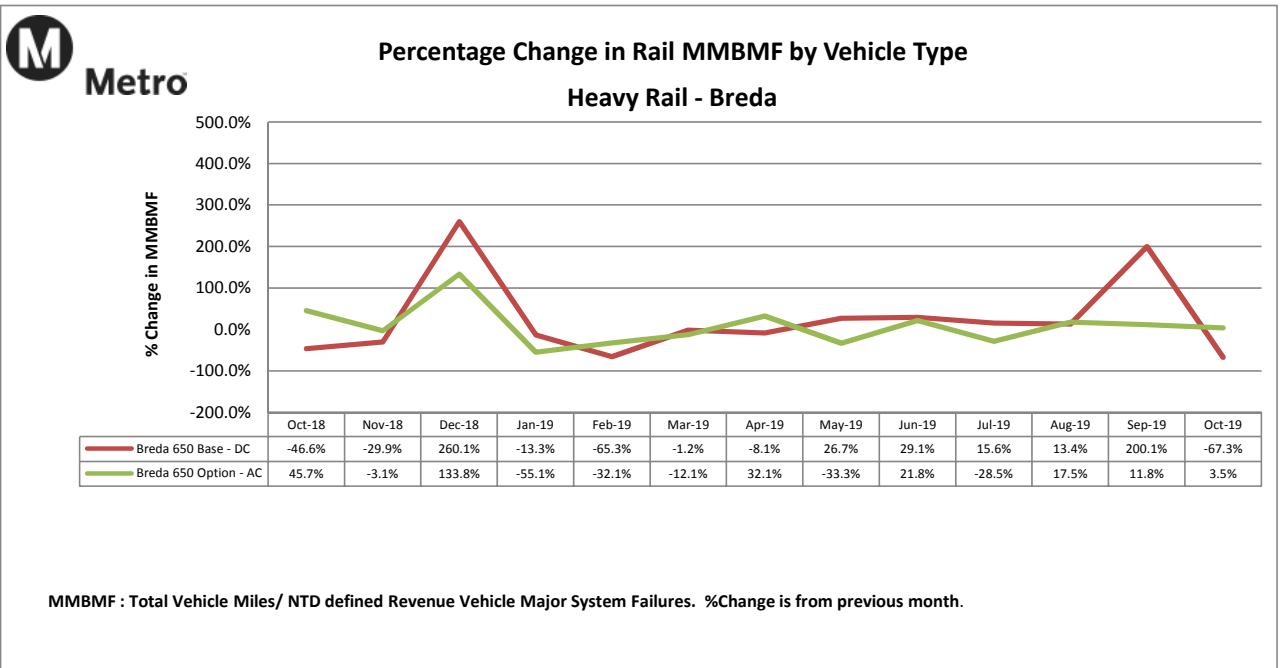
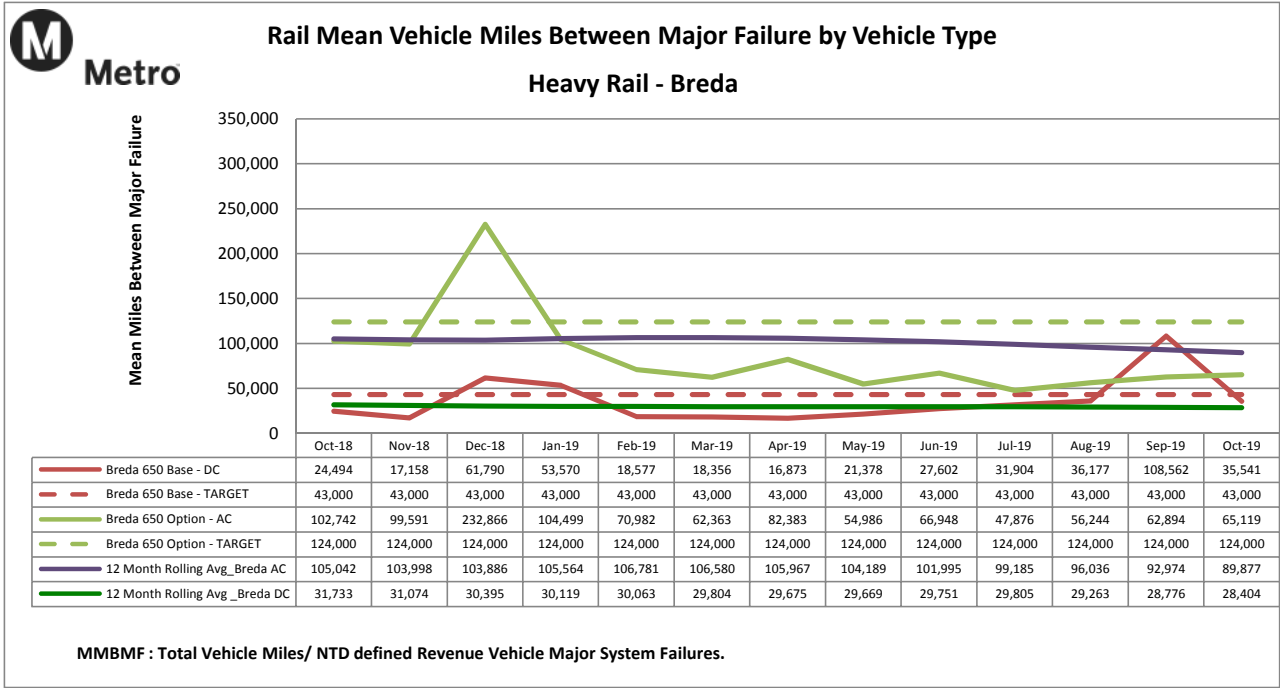
Oct 2019

Day Type	% of Adjusted Scheduled Cars to Actual Rollout Cars	% of Adjusted Scheduled Trains to Actual Rollout Trains
Blue		
Weekday	92.37%	92.37%
Weekend	100.00%	100.00%
Total	94.05%	94.58%
Red/Purple		
Weekday	99.10%	99.31%
Weekend	98.95%	98.75%
Total	99.08%	99.23%
Green		
Weekday	99.31%	99.31%
Weekend	85.71%	85.71%
Total	98.12%	98.12%
Gold		
Weekday	98.15%	98.21%
Weekend	100.00%	100.00%
Total	98.37%	98.48%
Expo		
Weekday	98.07%	98.25%
Weekend	100.00%	100.00%
Total	98.35%	98.49%
Systemwide	98.34%	98.32%



METRO RAIL PERFORMANCE – OCTOBER 2019

Rail Performance by Vehicle Type



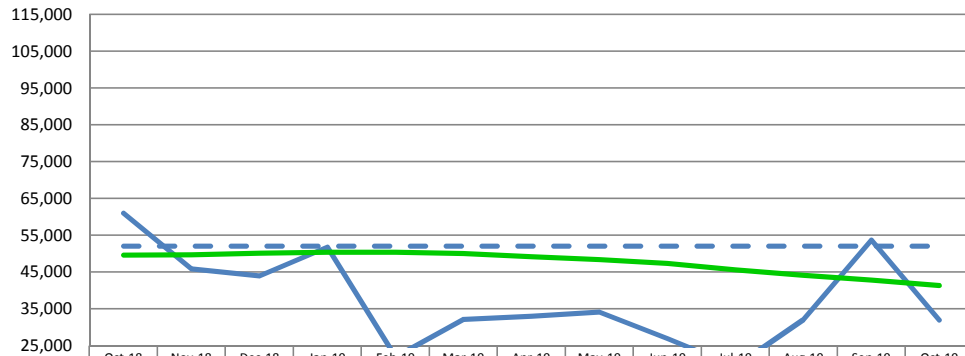


Metro

Rail Mean Vehicle Miles Between Major Failure by Vehicle Type

Light Rail - Breda

Mean Miles Between Major Failure



	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19
— AnsaldoBreda 2550 Base - AC	60,989	45,884	43,889	51,768	21,949	32,069	32,976	34,128	26,913	19,321	32,039	53,666	31,910
— AnsaldoBreda 2550 Base - TARGET	52,000	52,000	52,000	52,000	52,000	52,000	52,000	52,000	52,000	52,000	52,000	52,000	52,000
— 12 Month Rolling Avg AnsaldoBreda2550Base - AC	49,586	49,710	50,097	50,339	50,411	50,011	49,160	48,395	47,296	45,542	44,074	42,820	41,285

MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures.

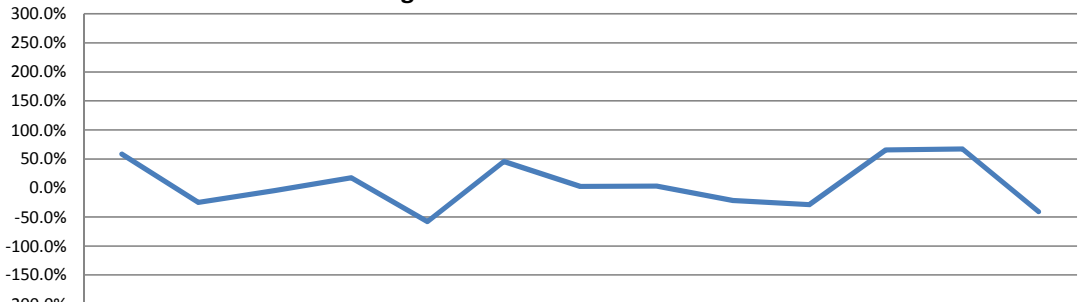


Metro

Percentage Change in Rail MMBMF by Vehicle Type

Light Rail - Breda

% Change in MMBMF



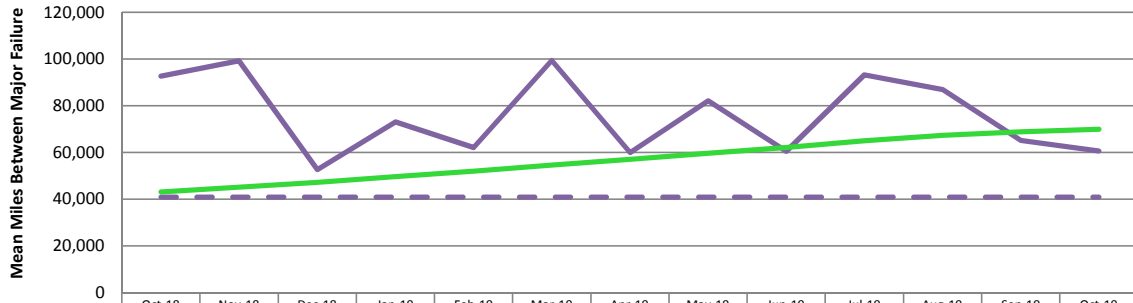
	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19
— AnsaldoBreda 2550 Base - AC	58.8%	-24.8%	-4.3%	18.0%	-57.6%	46.1%	2.8%	3.5%	-21.1%	-28.2%	65.8%	67.5%	-40.5%

MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures. %Change is from previous month.



Metro

Rail Mean Vehicle Miles Between Major Failure by Vehicle Type Light Rail - KinkiSharyo



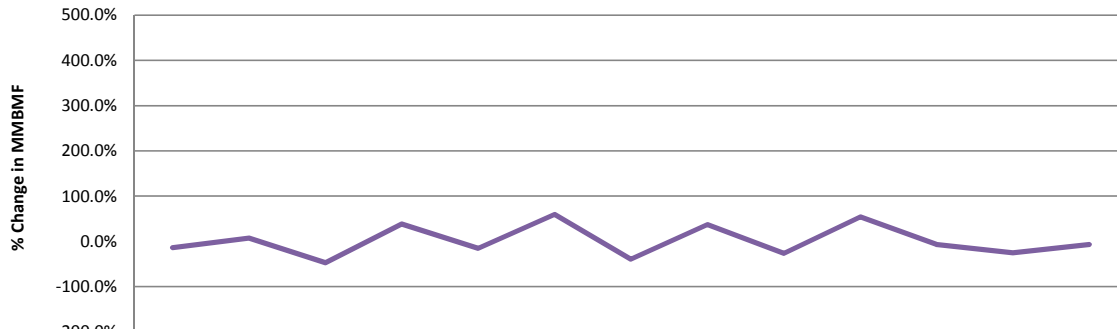
	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19
KinkiSharyo P3010 *	92,771	99,289	52,753	73,160	62,116	99,363	60,035	82,231	60,577	93,250	86,940	65,214	60,618
KinkiSharyo P3010 - TARGET	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000
12 Month Rolling Avg Kinkisharyo P3010	43,081	45,127	47,286	49,760	52,080	54,615	57,102	59,695	62,225	65,092	67,414	68,946	69,912

MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures.



Metro

Percentage Change in Rail MMBMF by Vehicle Type Light Rail - KinkiSharyo



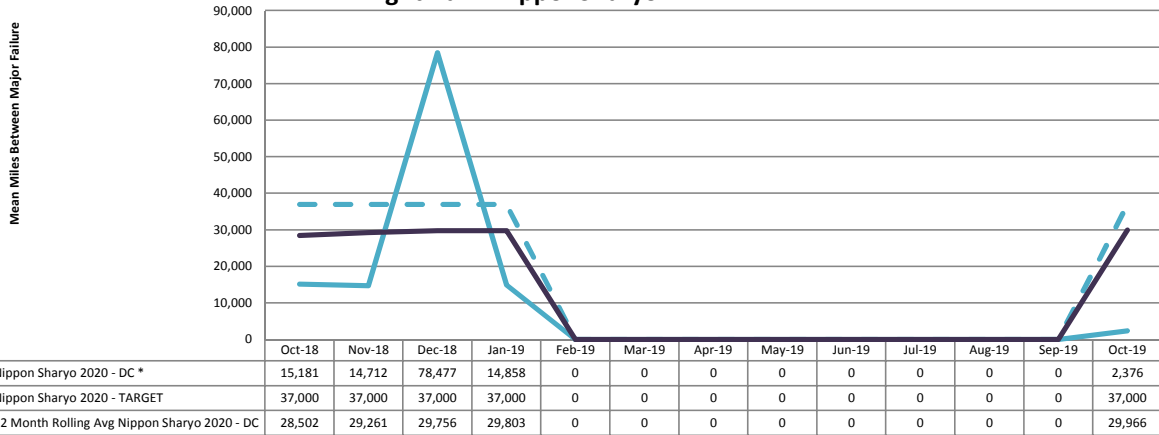
	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19
KinkiSharyo P3010 *	-14.0%	7.0%	-46.9%	38.7%	-15.1%	60.0%	-39.6%	37.0%	-26.3%	53.9%	-6.8%	-25.0%	-7.0%

MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures. %Change is from previous month.



Rail Mean Vehicle Miles Between Major Failure by Vehicle Type

Light Rail - NipponSharyo



* Nippon Sharyo 2020 Cars did not operate starting in February 2019 to September 2019

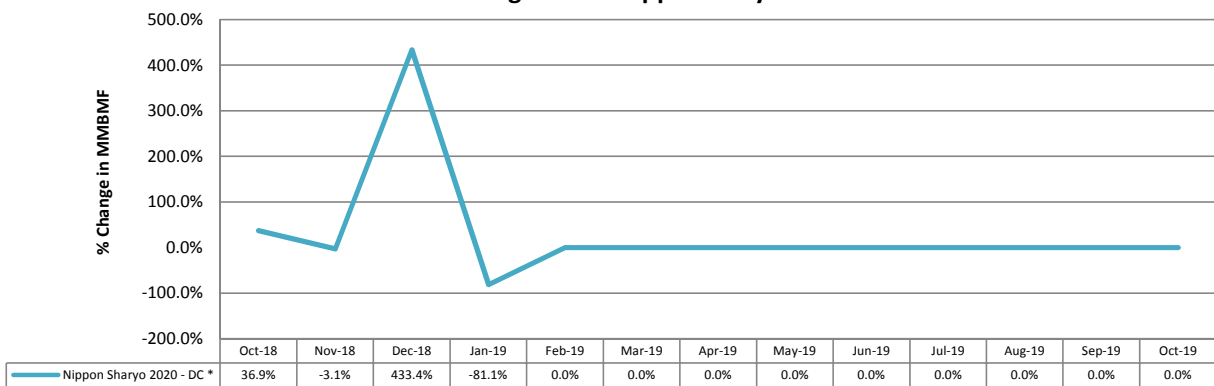
** Nippon Sharyo 865 -DC Cars have been retired starting September 2018

MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures.



Percentage Change in Rail MMBMF by Vehicle Type

Light Rail - NipponSharyo



* Nippon Sharyo 2020 did not operate starting in February 2019 to September 2019

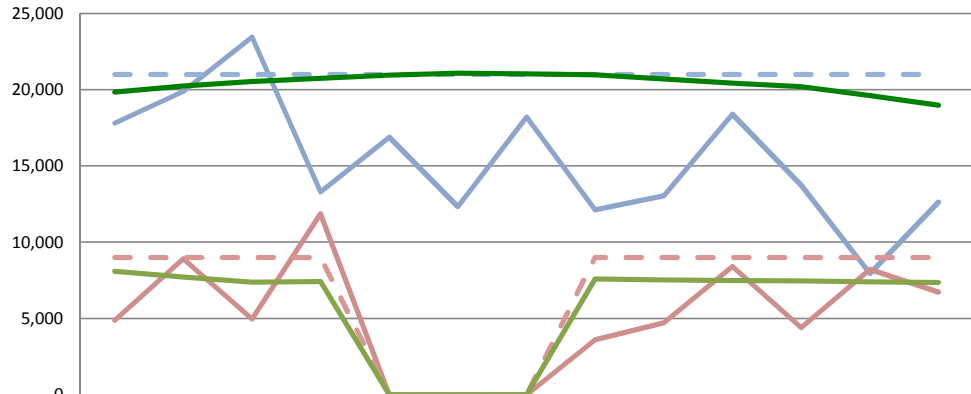
** Nippon Sharyo 865 -DC Cars have been retired starting September 2018

MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures. %Change is from previous month.



Rail Mean Vehicle Miles Between Major Failures by Vehicle Type Light Rail - Siemens

Mean Miles Between Major Failure



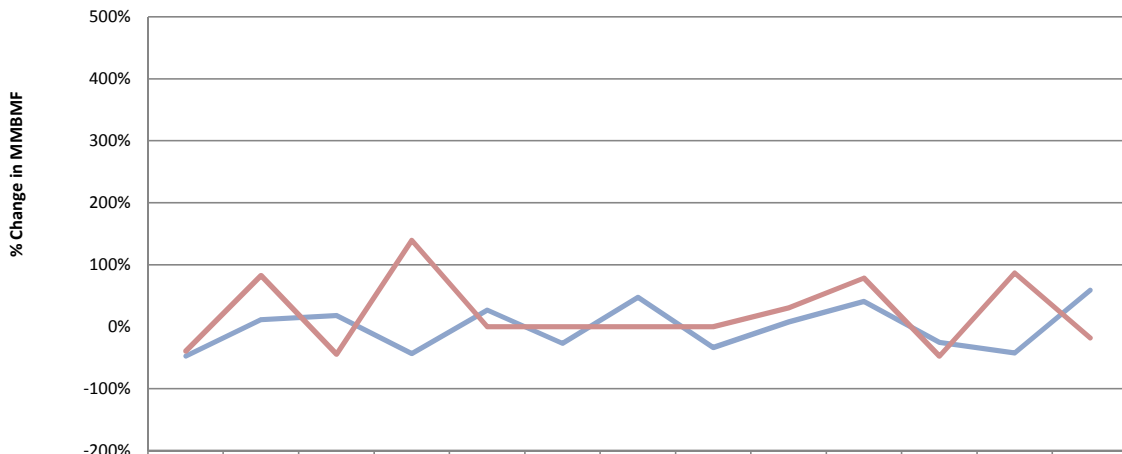
	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19
Siemens 2000 Base - AC	17,816	19,888	23,455	13,310	16,886	12,338	18,216	12,118	13,056	18,410	13,747	7,953	12,626
Siemens 2000 Base - TARGET	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000
Siemens 2000 GE/ATP - AC **	4,877	8,911	4,963	11,882	0	0	0	3,607	4,711	8,422	4,402	8,222	6,736
Siemens 2000 GE/ATP - TARGET **	9,000	9,000	9,000	9,000	0	0	0	9,000	9,000	9,000	9,000	9,000	9,000
12 Month Rolling Avg Siemens 2000 Base - AC	19,841	20,254	20,547	20,746	20,962	21,085	21,055	20,982	20,708	20,446	20,206	19,619	18,978
12 Month Rolling Avg - Siemens 2000 GE/ATP - AC	8,091	7,725	7,393	7,426	0	0	0	7,591	7,527	7,488	7,460	7,411	7,365

** The Siemens 2000 GE/ATP AC cars did not operate starting in February 2019 and resumed in May 2019.

MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures.



Percentage Change in Rail MMBMF by Vehicle Type Light Rail - Siemens



	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19
Siemens 2000 Base - AC	-47.6%	11.6%	17.9%	-43.3%	26.9%	-26.9%	47.6%	-33.5%	7.7%	41.0%	-25.3%	-42.1%	58.8%
Siemens 2000 GE/ATP - AC **	-39.4%	82.7%	-44.3%	139.4%	0.0%	0.0%	0.0%	0.0%	30.6%	78.8%	-47.7%	86.8%	-18.1%

** The Siemens 2000 GE/ATP AC cars did not operate starting in February 2019.

MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures. %Change is from previous month.

Mean Miles Between Major Failures

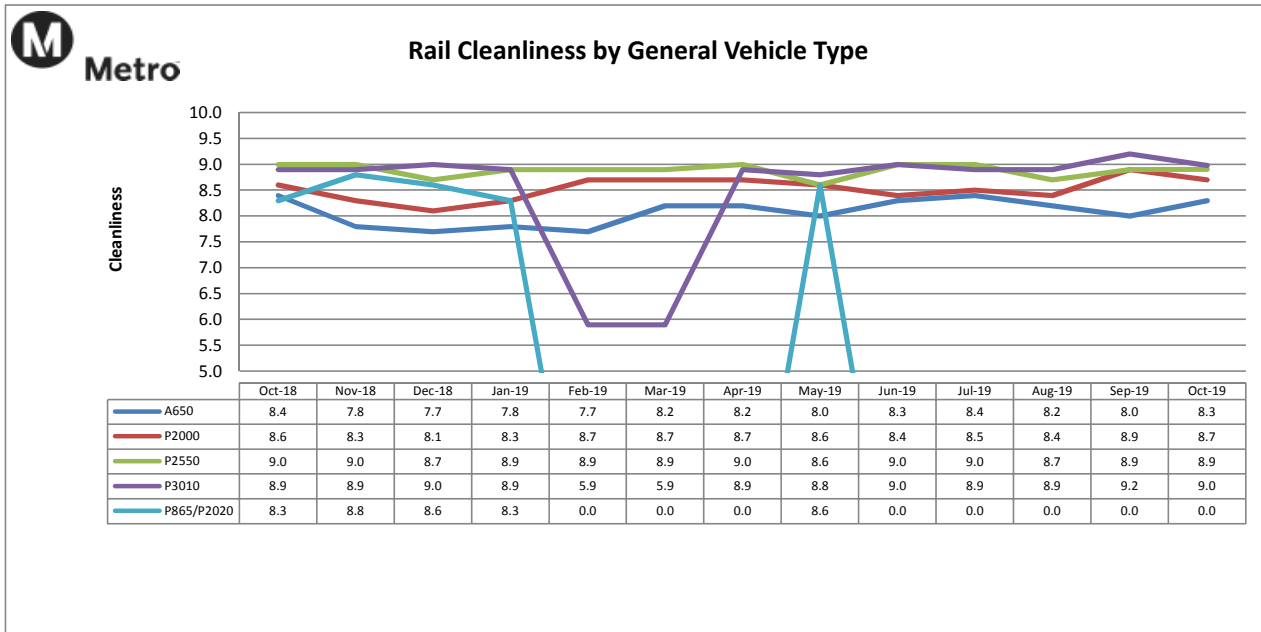
	FY 2019	FY2020 Goal	FY2020 YTD
AnsaldoBreda2550Base - AC	37,825	52,000	29,941
Breda 650 Base - DC	27,616	43,000	45,133
Breda 650 Option - AC	85,062	124,000	57,402
Kinkisharyo P3010	70,566	41,000	74,326
Nippon Sharyo 2020 - DC	21,405	37,000	6,167
Nippon Sharyo 865 - DC			0**
Siemens 2000 Base - AC	17,841	21,000	12,768
Siemens 2000 GE/ATP - AC	6,920	9,000	6,309

** retired in September 2018

Rail Fleet Distribution – September 2019

Number of Rail Vehicle Type by Division	Blue	Red / Purple	Green	Gold	Expo	Total
AnsaldoBreda 2550 Base - AC				50		50
Breda 650 Base - DC		28				28
Breda 650 Option - AC		66				66
KinkiSharyo P3010	54		25	47	56	182
Nippon Sharyo 2020 - DC	15					15
0						0
Siemens 2000 Base - AC	7				15	22
Siemens 2000 GE/ATP - AC			13			13
TOTALS	76	94	38	97	71	376

Cleanliness by Vehicle Type Oct 2019

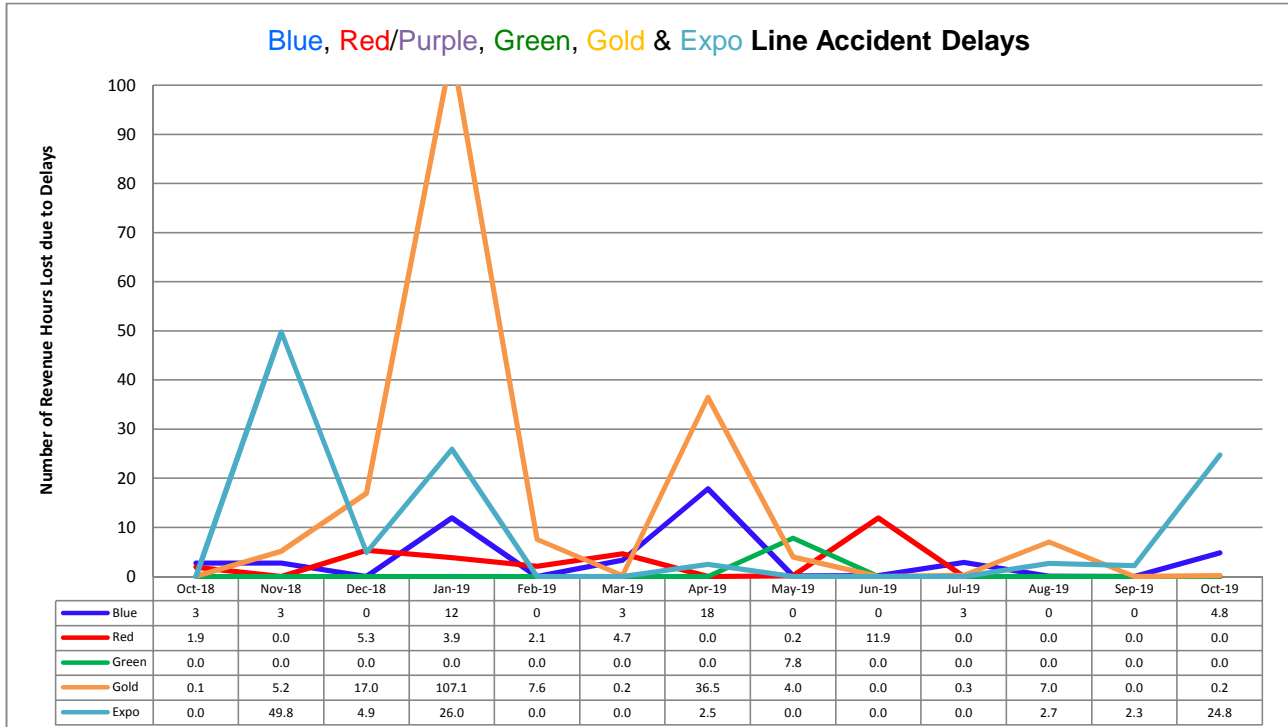


P2020 has only one cleanliness inspection since Jan 2019 due to Blue Line Construction

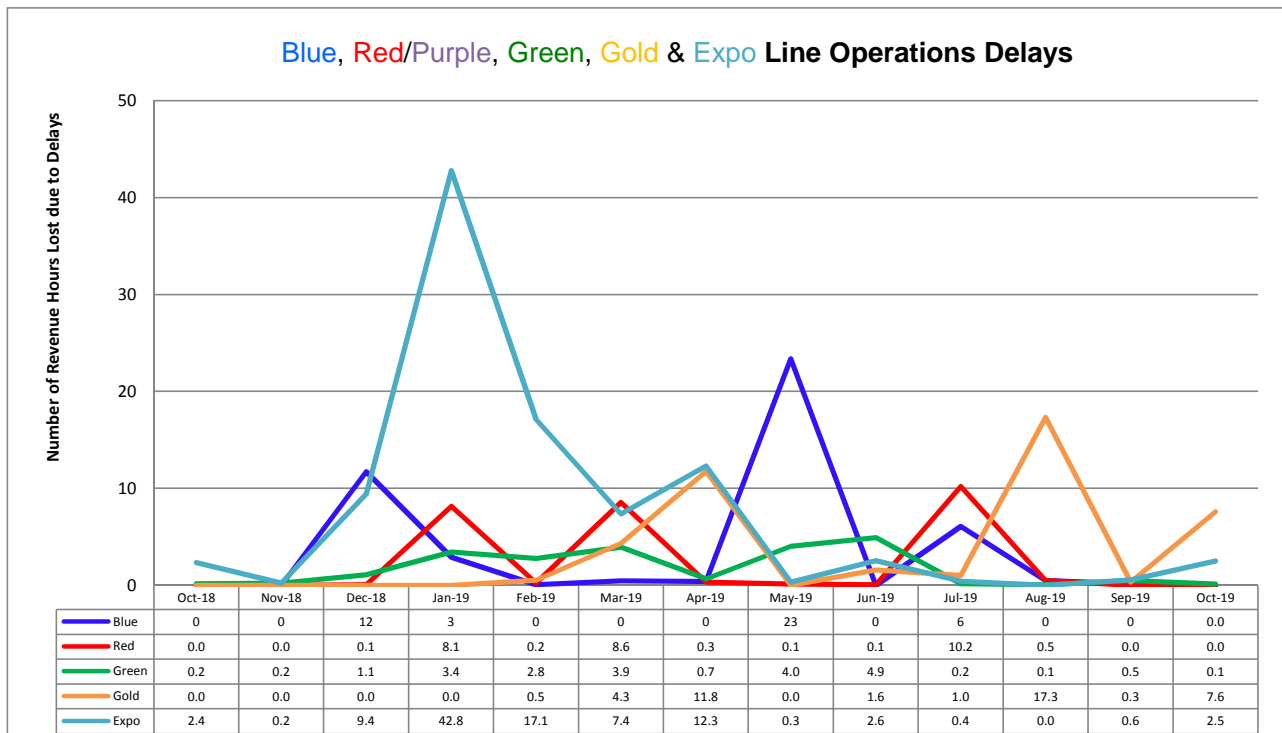
RAIL DELAYS BY CATEGORY - SYSTEMWIDE

Revenue Hours Lost Related to - ACCIDENTS

Oct 2019

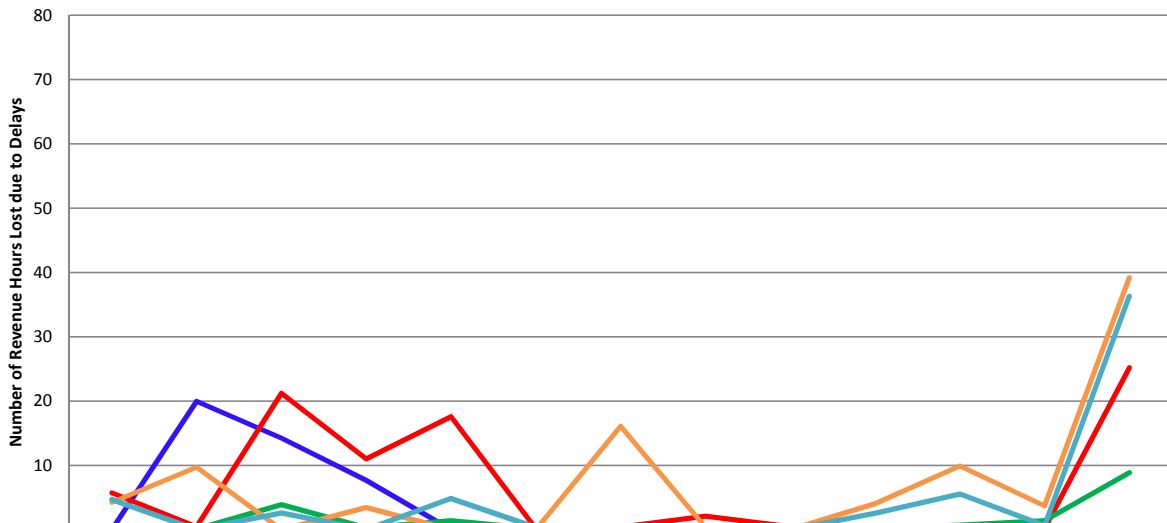


Revenue Hours Lost Related to - OPERATIONS



Revenue Hours Lost Related to - OTHER

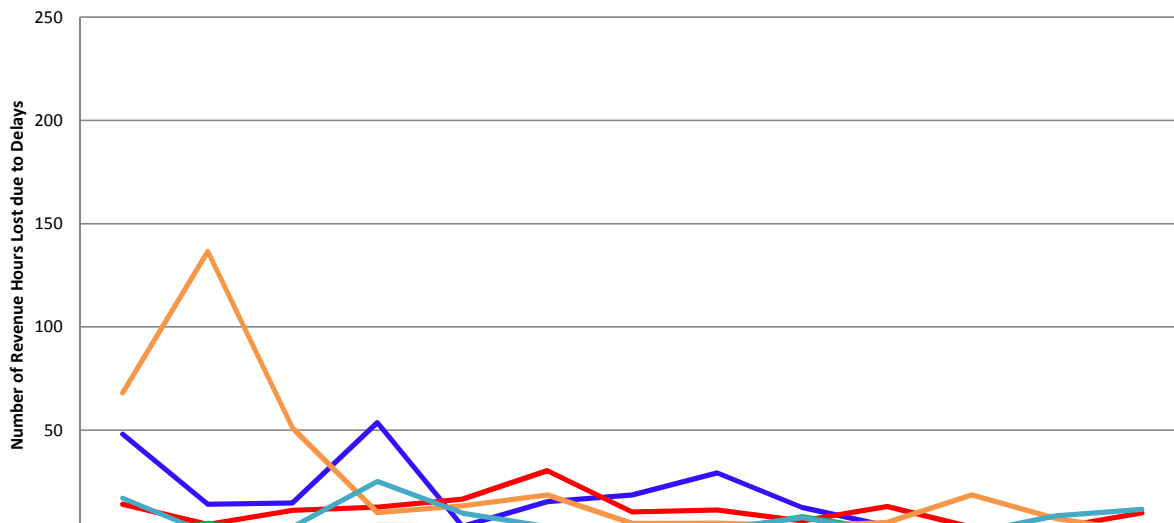
Blue, Red/Purple, Green, Gold & Expo Line Other Delays



	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19
Blue	0	20	14	8	0	0	0	0	0	0	0	0	0.1
Red	5.7	0.5	21.2	11.0	17.6	0.2	0.4	2.1	0.5	0.3	0.0	0.2	25.2
Green	0.1	0.1	3.9	0.3	1.4	0.2	0.1	0.0	0.0	0.3	0.7	1.4	8.9
Gold	4.3	9.7	0.0	3.5	0.0	0.0	16.1	0.4	0.0	4.0	9.9	3.7	39.2
Expo	4.7	0.0	2.6	0.0	4.9	0.4	0.0	0.0	0.0	2.6	5.6	0.6	36.3

Revenue Hours Lost Related to - POLICE & HEALTH

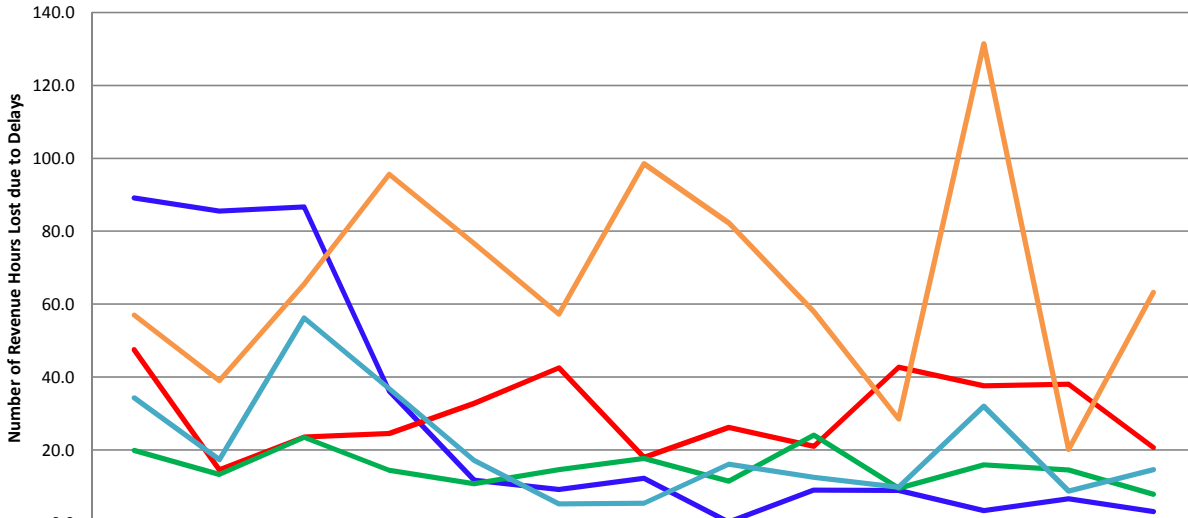
Blue, Red/Purple, Green, Gold & Expo Line Police & Health Delays



	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19
Blue	48	14	15	54	4	15	19	29	13	4	3	0	3.5
Red	14.2	4.4	11.3	12.8	16.7	30.4	10.5	11.4	6.2	13.2	3.1	3.0	10.0
Green	0.0	5.0	0.2	4.0	3.9	0.9	1.9	1.0	8.2	1.6	3.9	0.6	0.8
Gold	68.1	136.5	51.1	10.2	13.4	18.8	4.9	5.1	3.9	5.4	18.7	7.2	0.9
Expo	17.2	0.2	3.3	25.2	9.9	3.4	0.4	2.3	7.7	0.9	0.4	8.7	11.7

Revenue Hours Lost Related to - Vehicle Delays

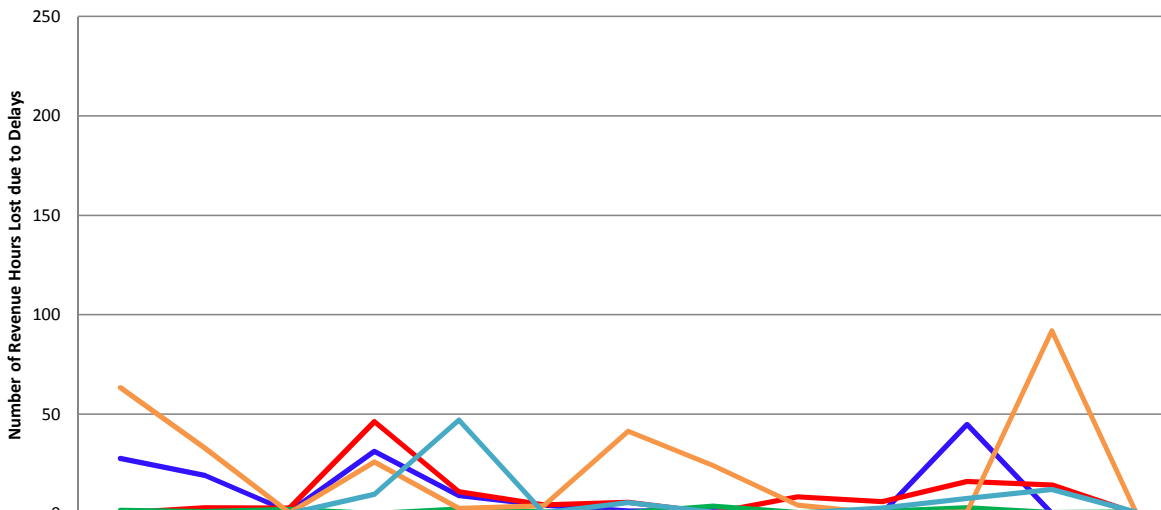
Blue, Red/Purple, Green, Gold & Expo Line Vehicle Delays



	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19
Blue	89.2	85.5	86.7	36.2	11.8	9.3	12.3	0.3	9.1	9.0	3.4	6.6	3.2
Red	47.6	14.7	23.6	24.6	32.8	42.6	18.0	26.3	21.1	42.7	37.6	38.1	20.7
Green	19.9	13.4	23.5	14.5	10.8	14.6	17.7	11.5	24.2	9.6	15.9	14.6	7.9
Gold	57.0	39.0	65.6	95.7	76.7	57.3	98.6	82.4	57.9	28.5	131.4	20.2	63.3
Expo	34.3	17.4	56.2	36.9	17.2	5.2	5.5	16.1	12.6	9.8	32.0	8.8	14.7

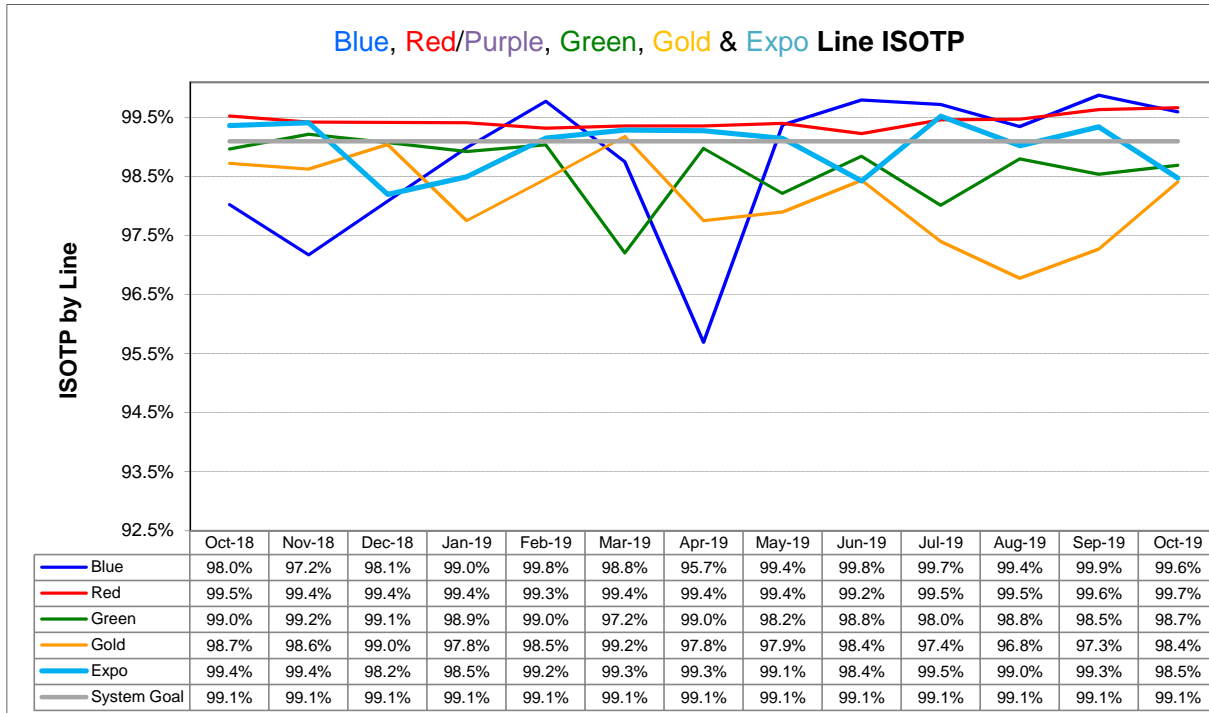
Revenue Hours Lost Related to - WAYSIDE

Blue, Red/Purple, Green, Gold & Expo Line Wayside Delays

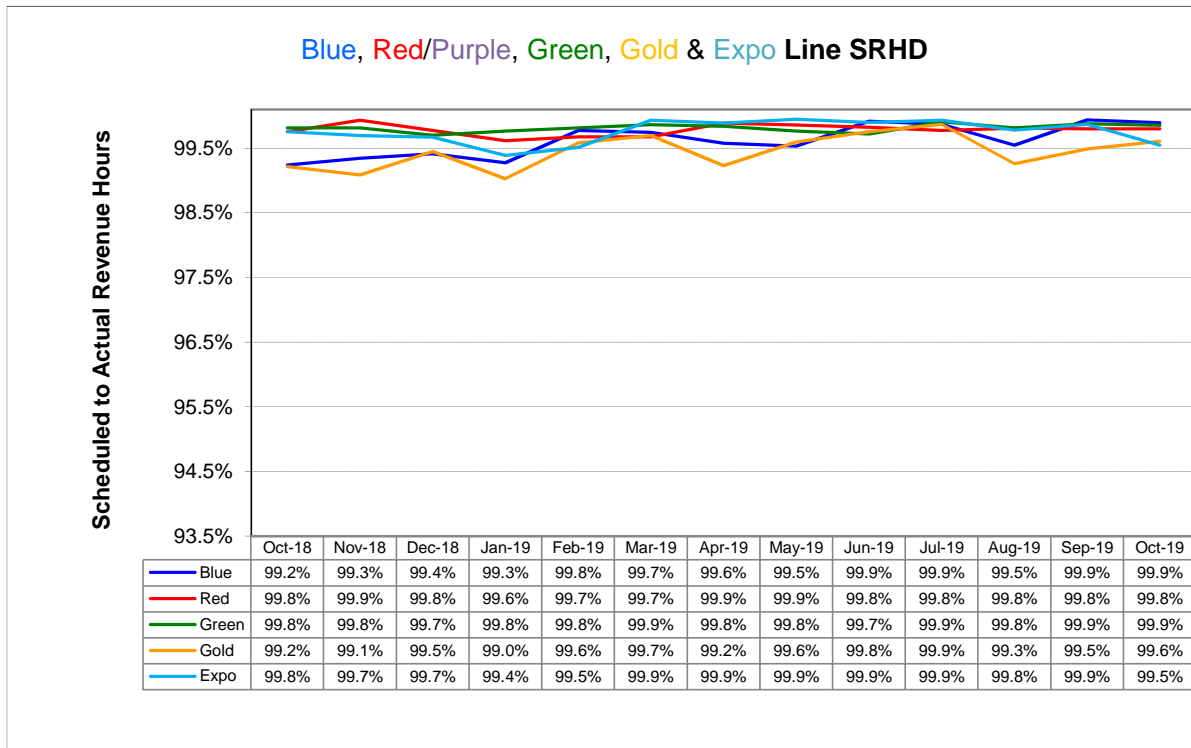


	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19
Blue	28	19	1	31	9	4	1	1	0	0	45	0	0.3
Red	0.4	2.9	2.9	46.2	11.0	4.4	5.6	0.3	8.4	6.0	16.2	14.4	0.0
Green	1.6	1.1	2.2	0.1	2.3	0.9	0.6	3.7	0.6	1.2	2.9	0.6	0.8
Gold	63.3	32.8	0.3	26.0	2.6	3.9	41.5	24.1	4.3	0.0	0.8	91.9	0.3
Expo	0.4	0.0	0.0	9.7	47.0	0.4	5.5	0.6	0.3	2.8	7.7	12.1	0.7

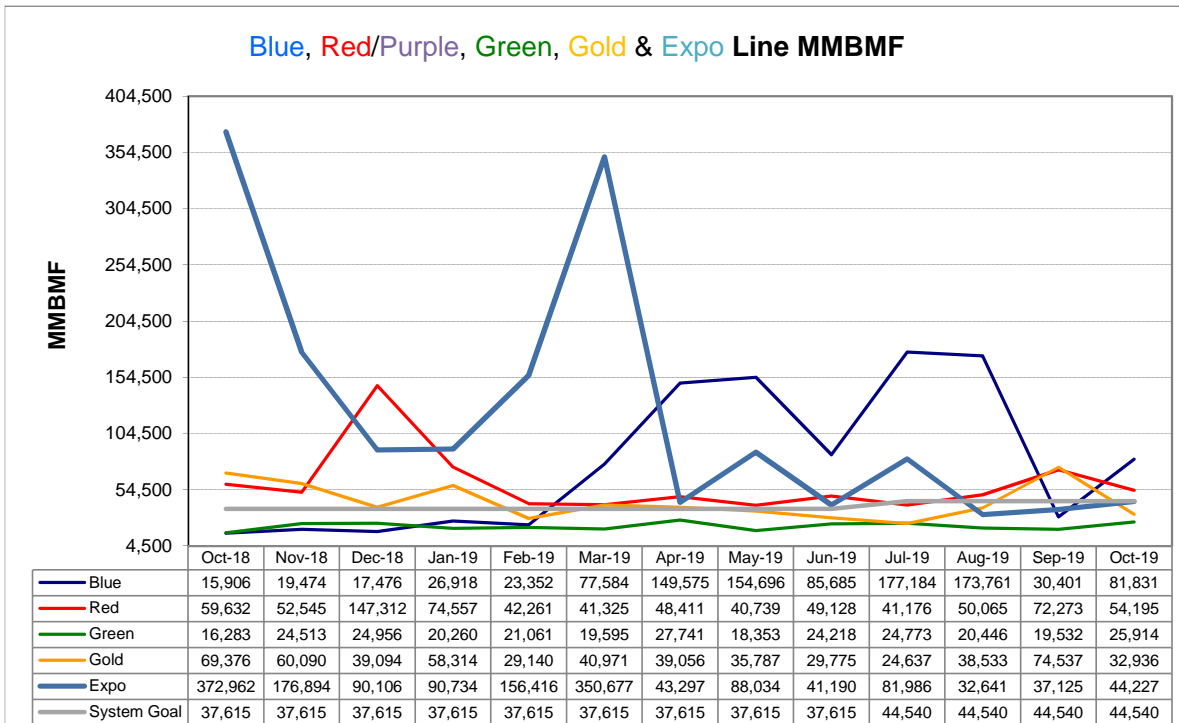
Rail Service Performance In Service On Time Performance by Line Oct 2019



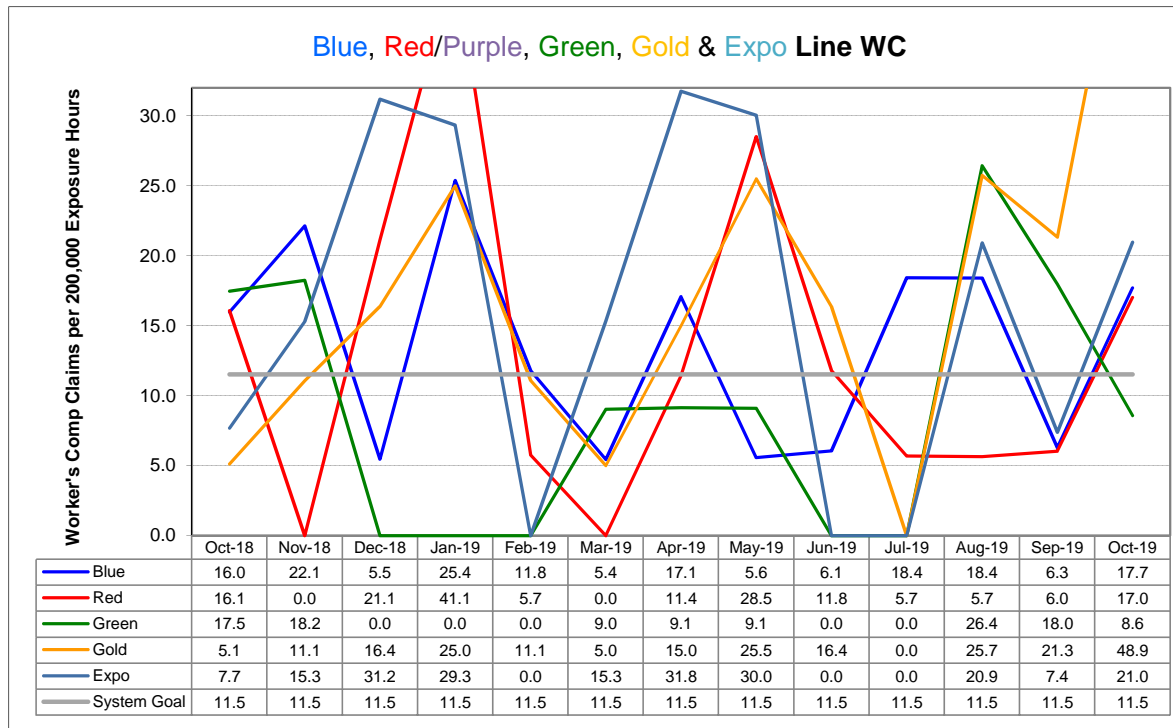
Ratio of Scheduled to Revenue Hours Delivered by Line



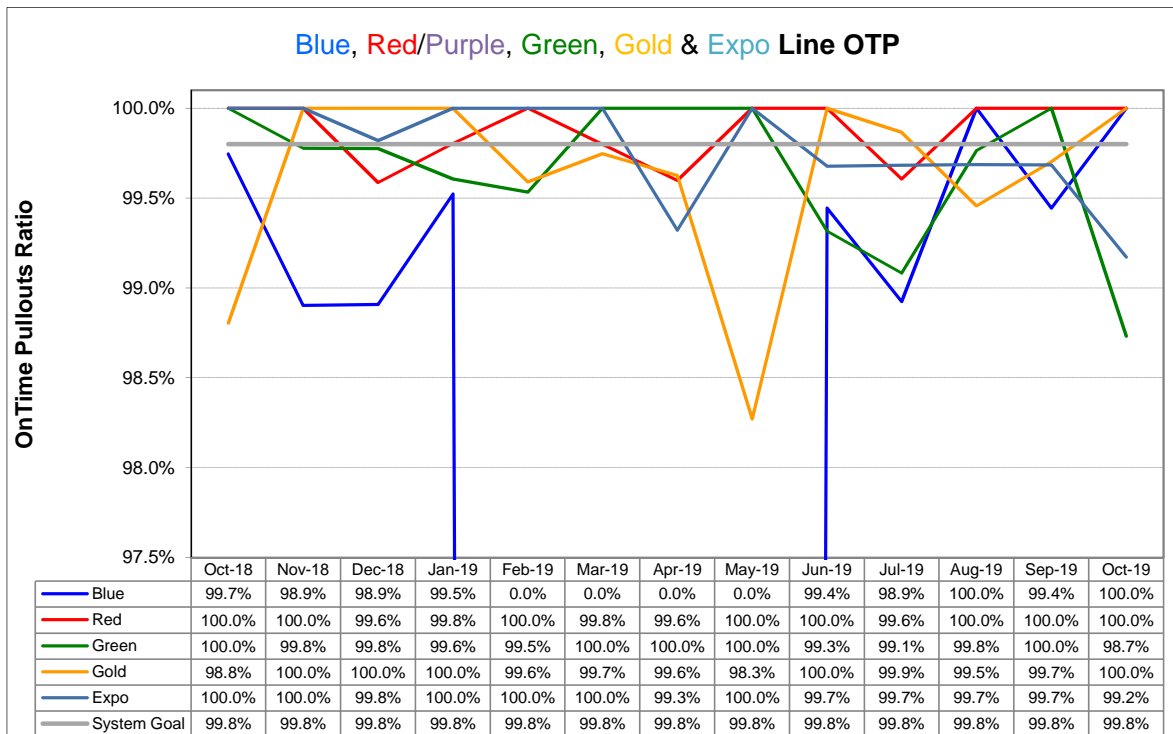
Mean Miles Between Mechanical Failures by Line



Workers Comp Claims by Line



On-Time Pullouts Ratio by Line

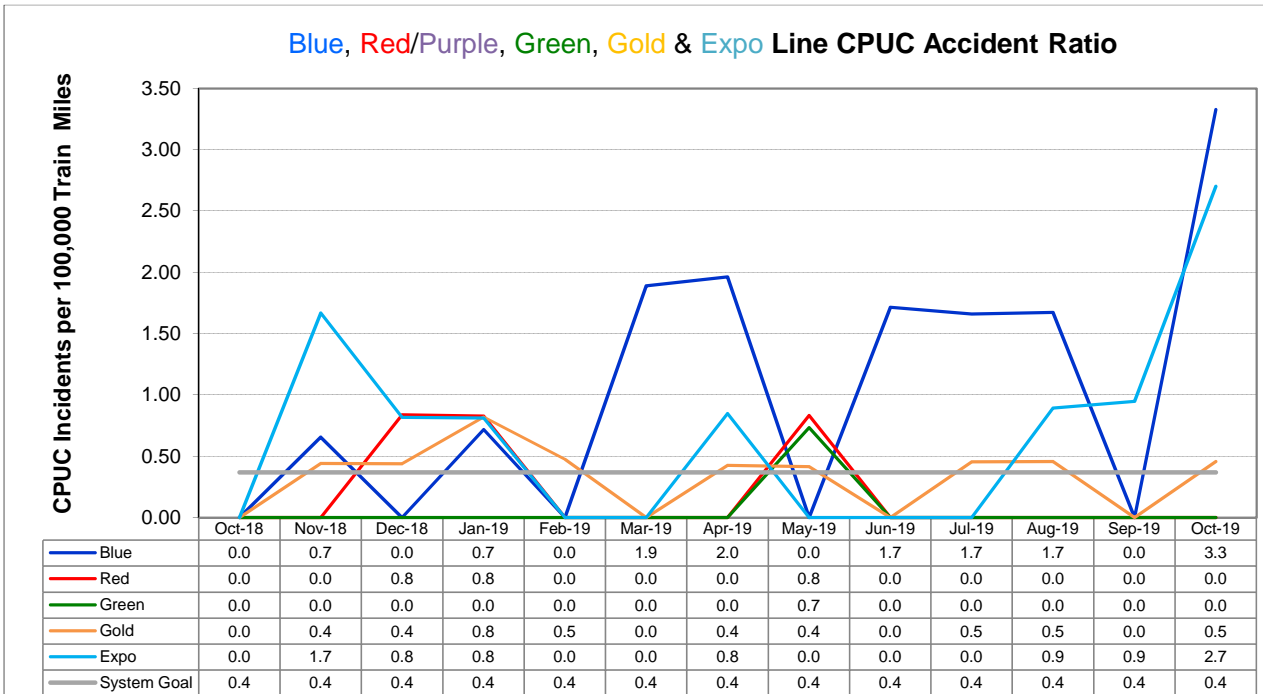


Due to Blue Line Construction, Blue pulled out of EXPO for Feb, Mar, Apr and May 2019.

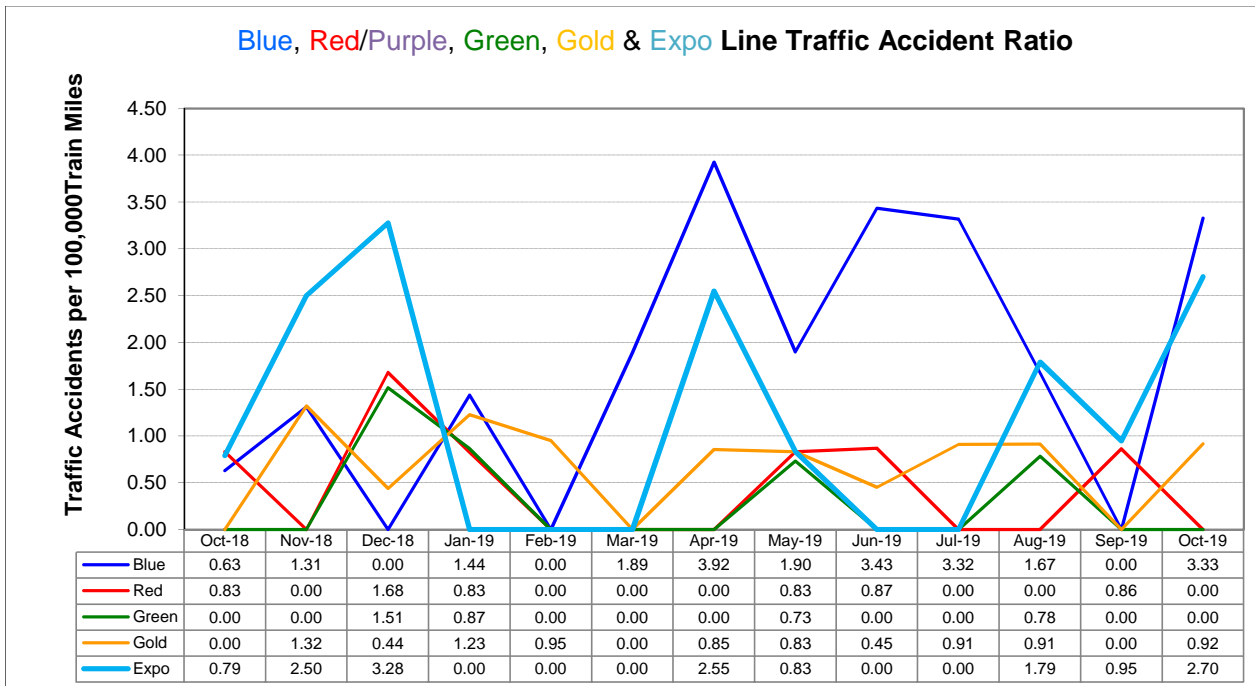
Rail Safety Performance

CPUC REPORTABLE INCIDENTS PER 100,000 TRAIN MILES

Oct 2019



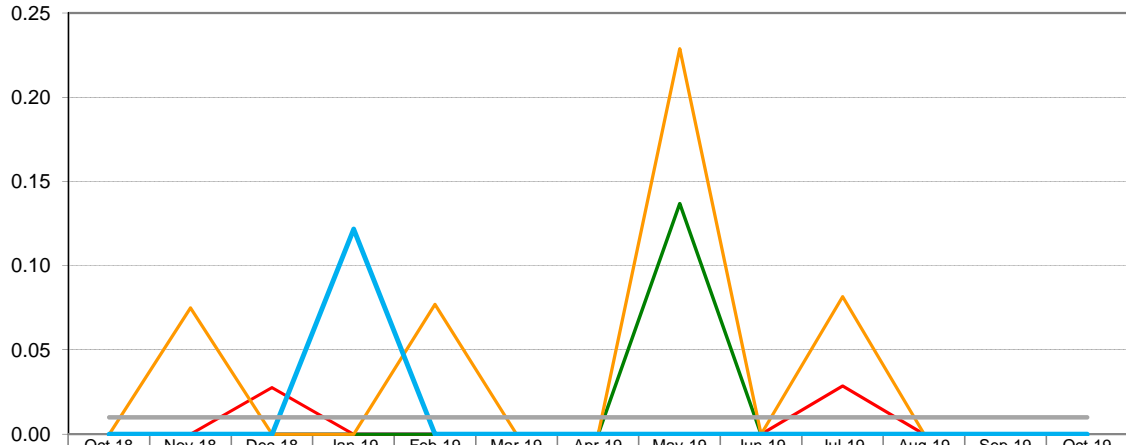
TRAFFIC ACCIDENTS PER 100,000 TRAIN MILES



PASSENGER ACCIDENTS PER 100,000 BOARDINGS

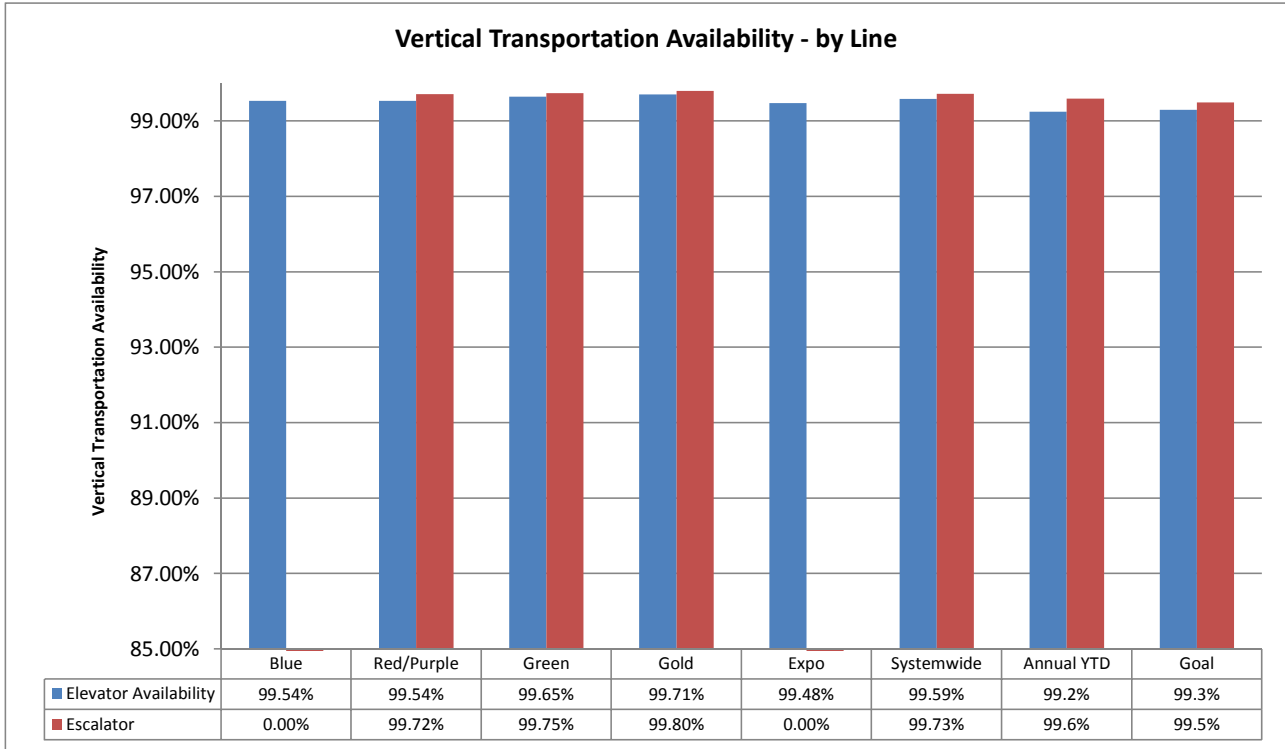
Blue, Red/Purple, Green, Gold & Expo Line Passenger Accident Ratio

Passenger Accidents per 100,000 Boardings



	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19
Blue	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Red	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00
Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00
Gold	0.00	0.08	0.00	0.00	0.08	0.00	0.00	0.23	0.00	0.08	0.00	0.00	0.00
Expo	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
System Goal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Systemwide Vertical Transportation Availability by Line Oct 2019

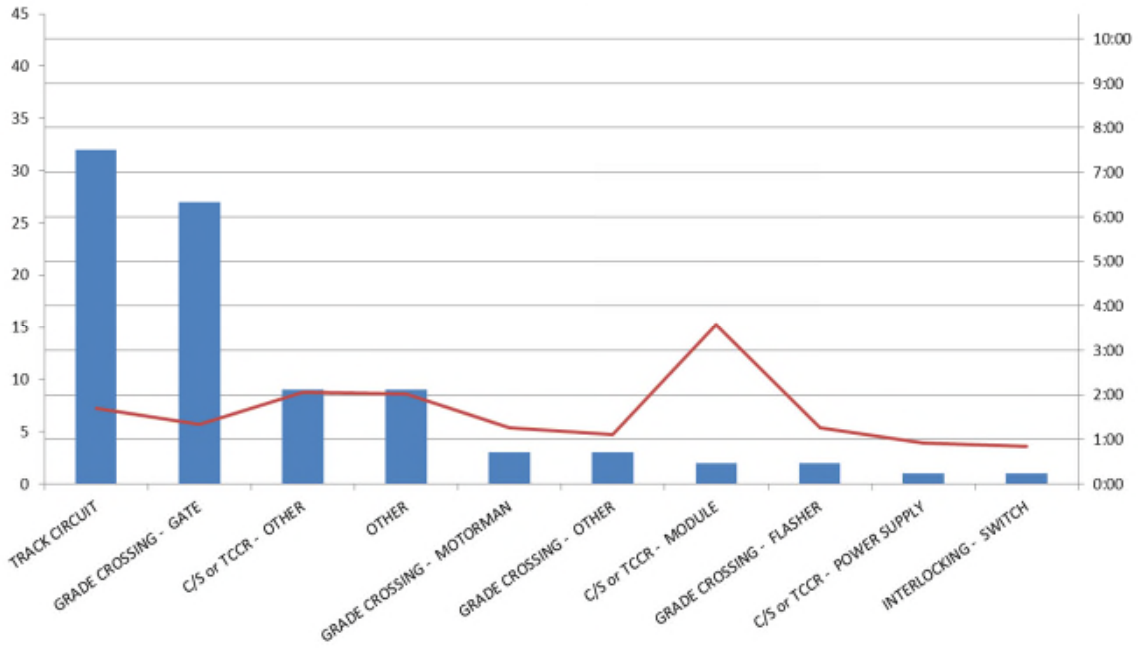


Note: No Escalators at Blue and Expo Lines

Wayside Signal Maintenance
[Incidents & Avg Time-To-Repair (TTR)]
October 2019

Number of Incidents

Avg TTR

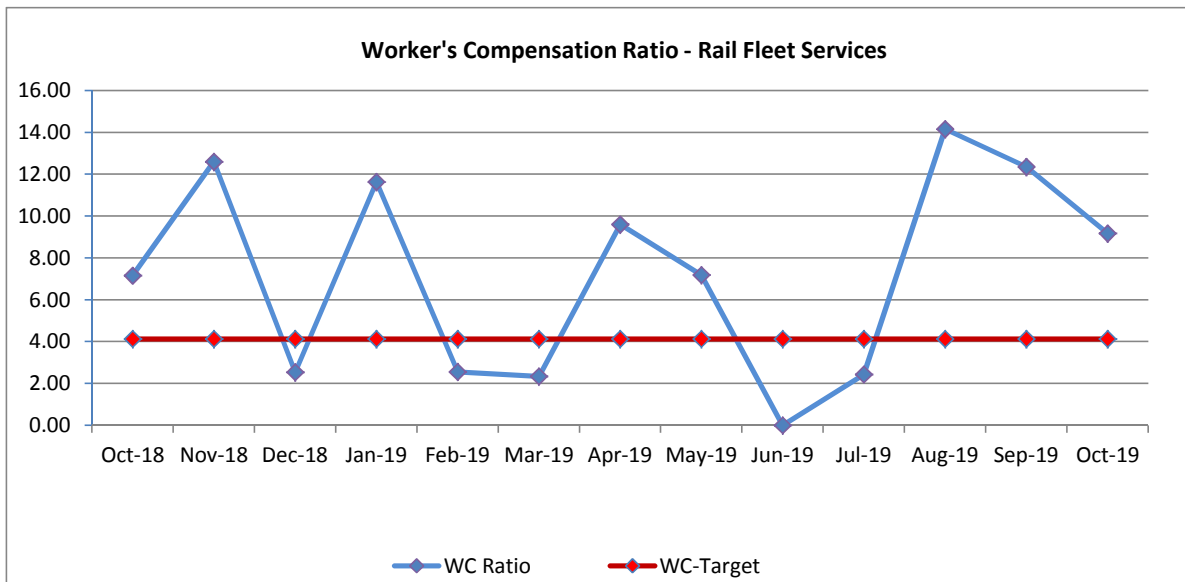
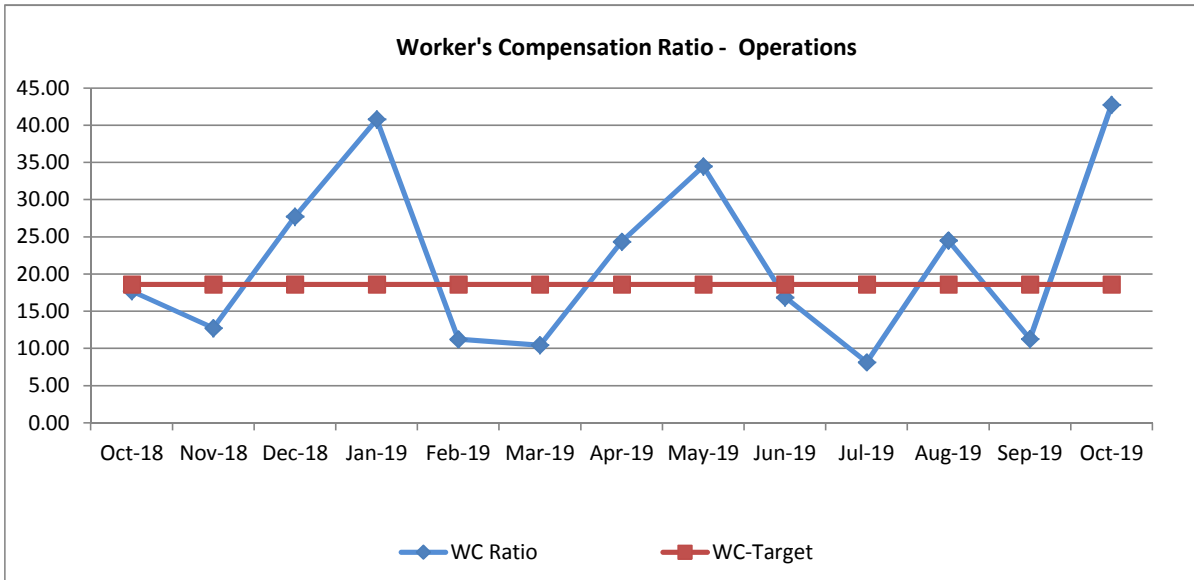


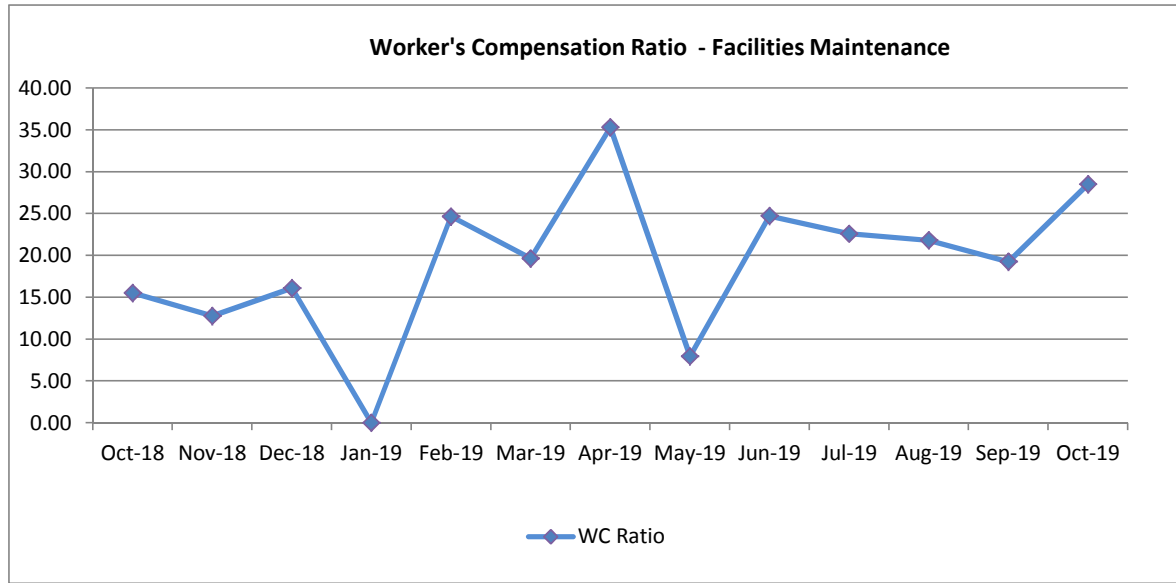
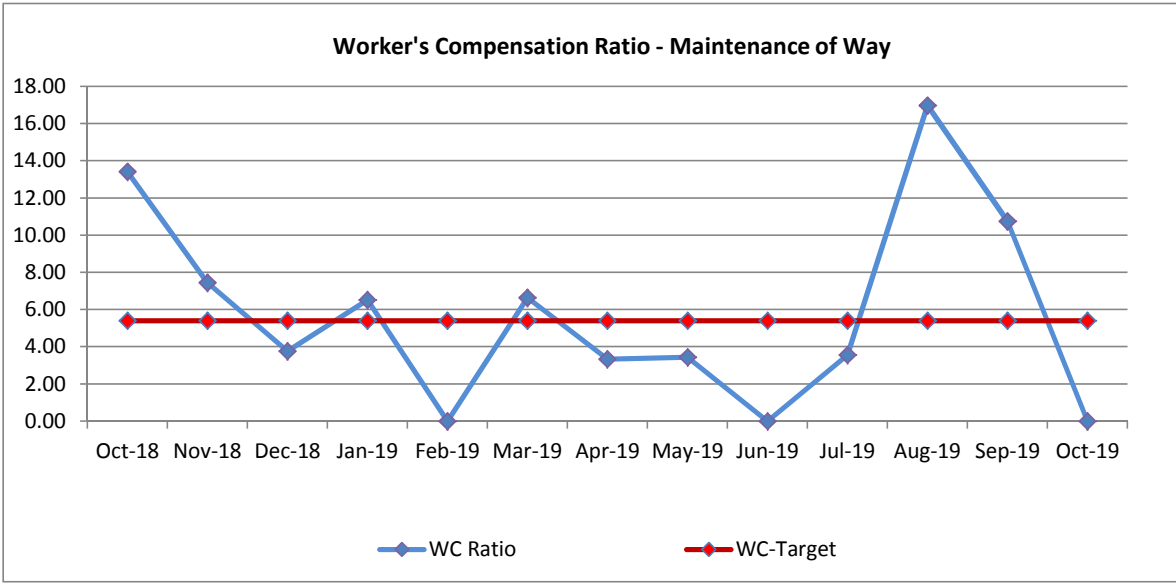
Incidents

Avg TTR

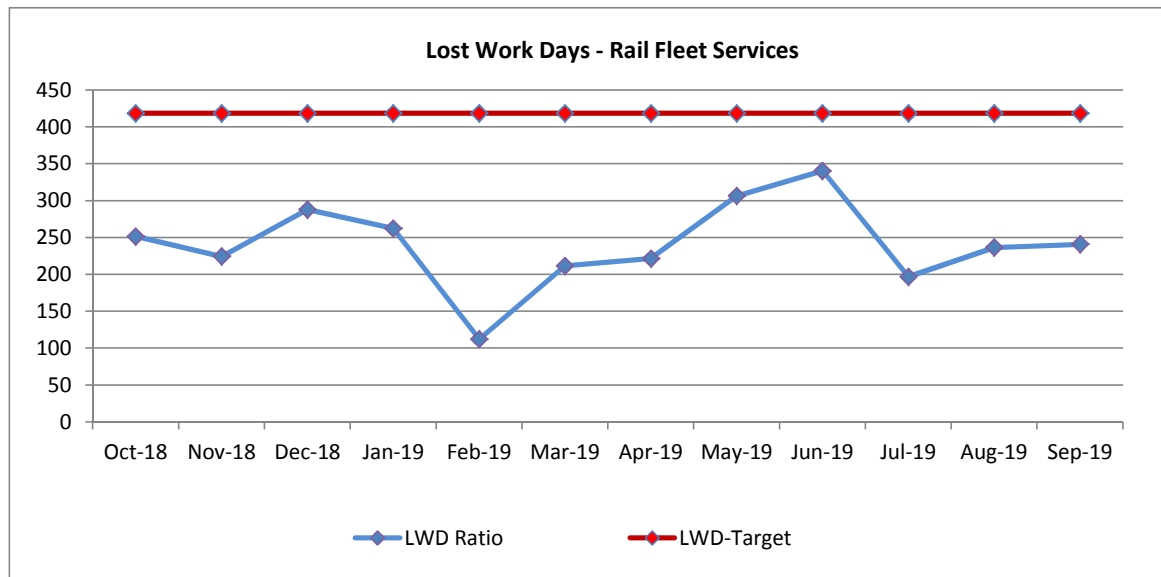
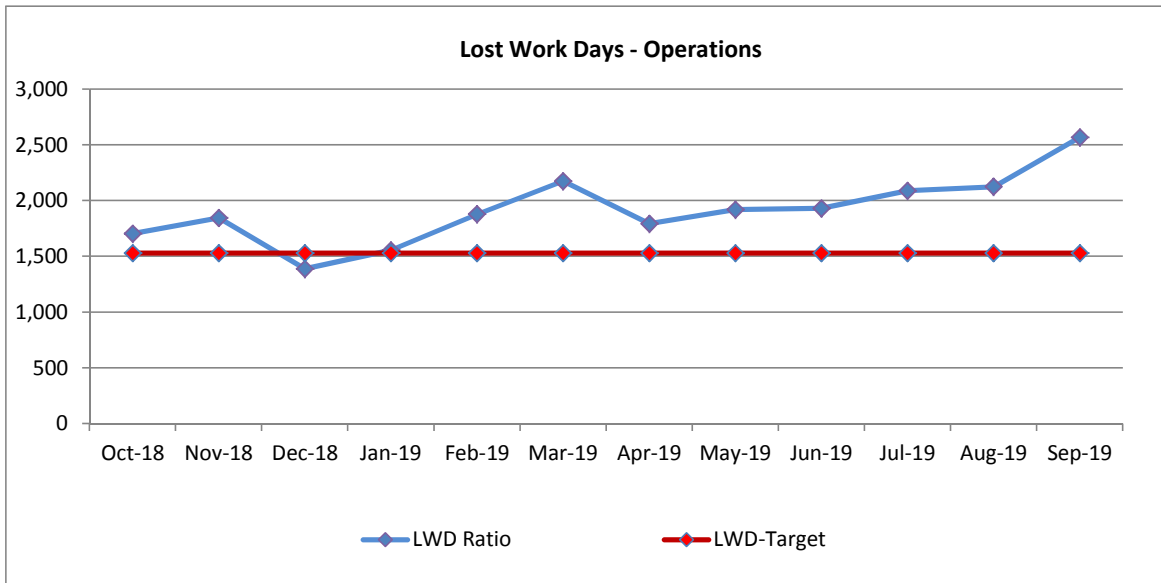
* Avg TTR does not include travel time

Administrative Key Performance Indicators Worker's Compensation, Lost Work Days, OSHA Oct 2019

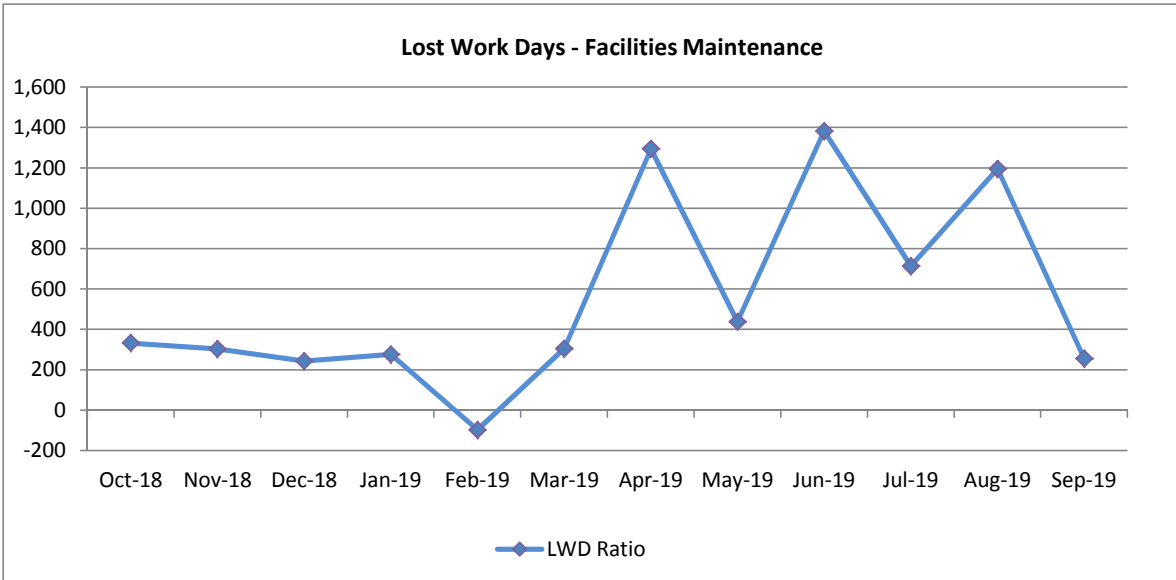
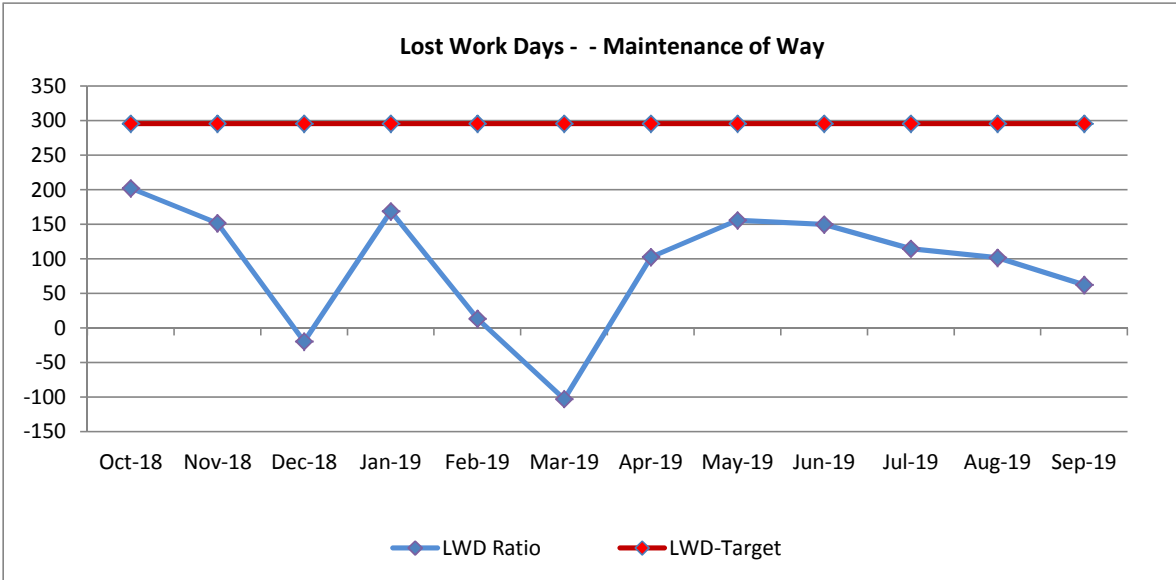




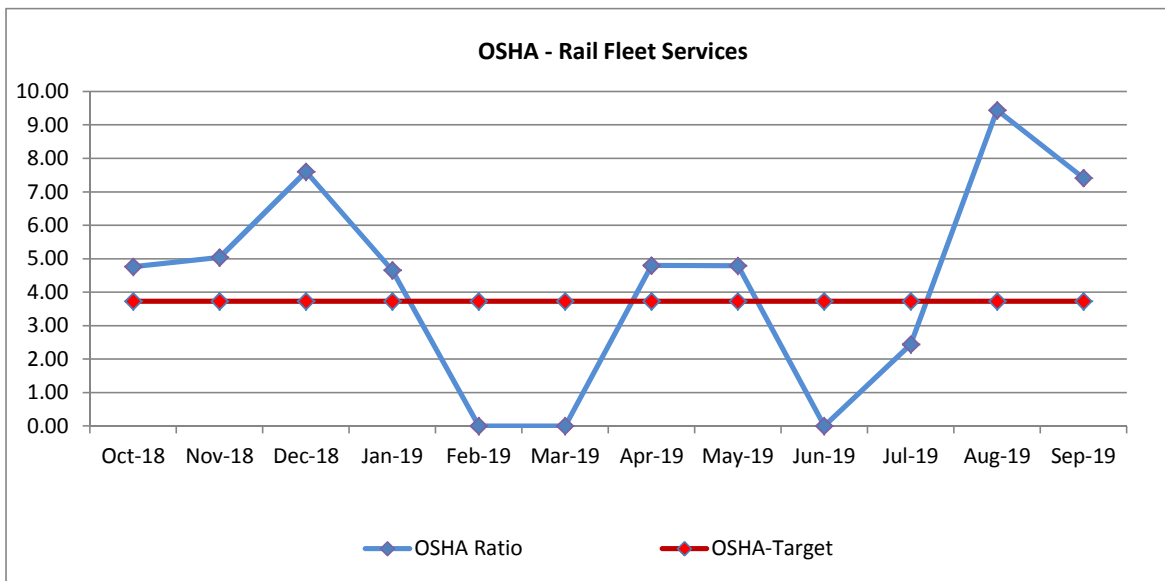
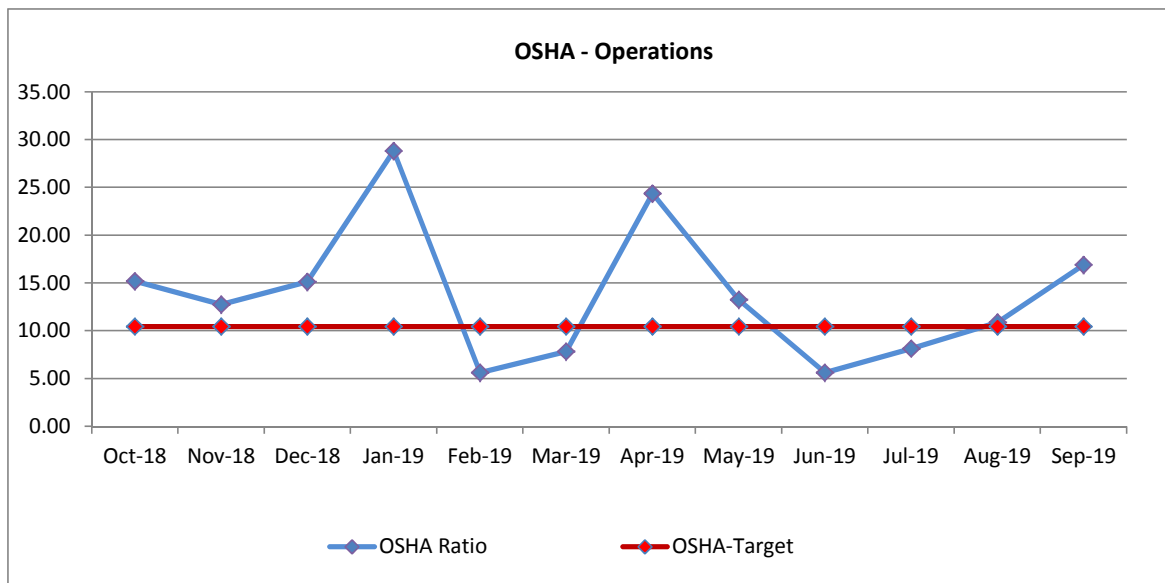
Facilities Maintenance goals to be established.



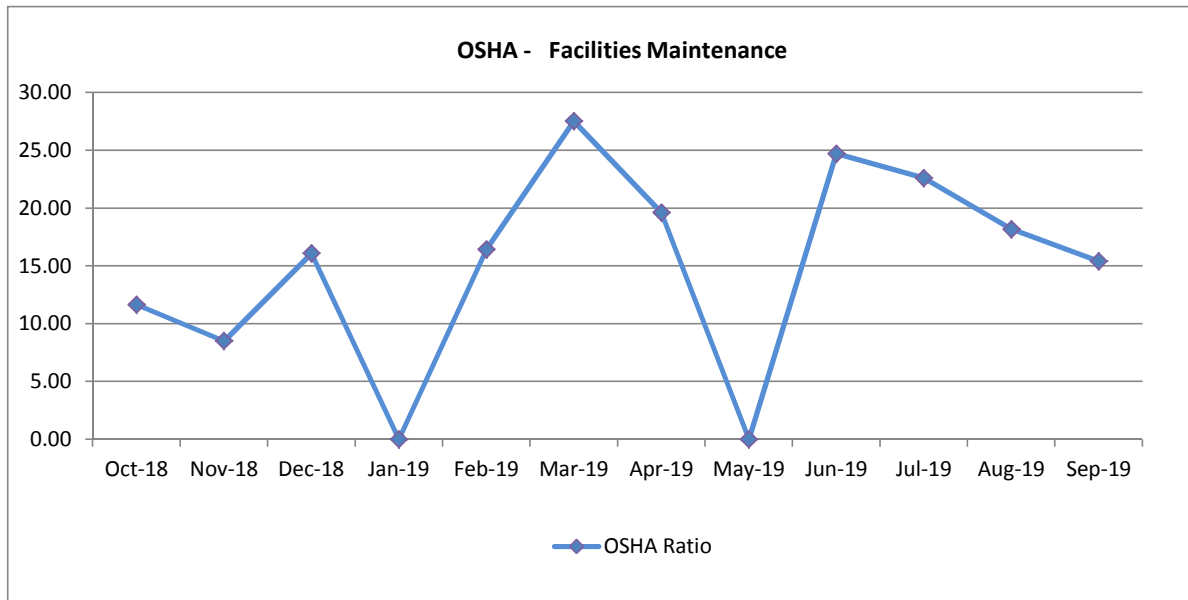
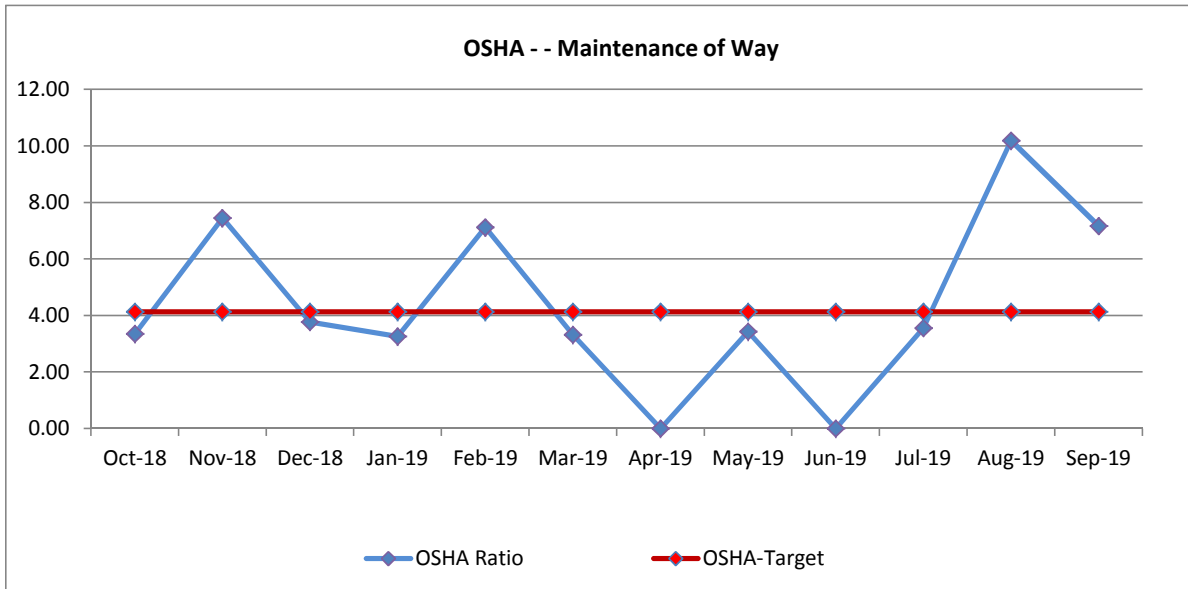
Note: There is a one month lag in Lost Work Days and OSHA data.



Facilities Maintenance goals to be established.
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Facilities Maintenance goals to be established.

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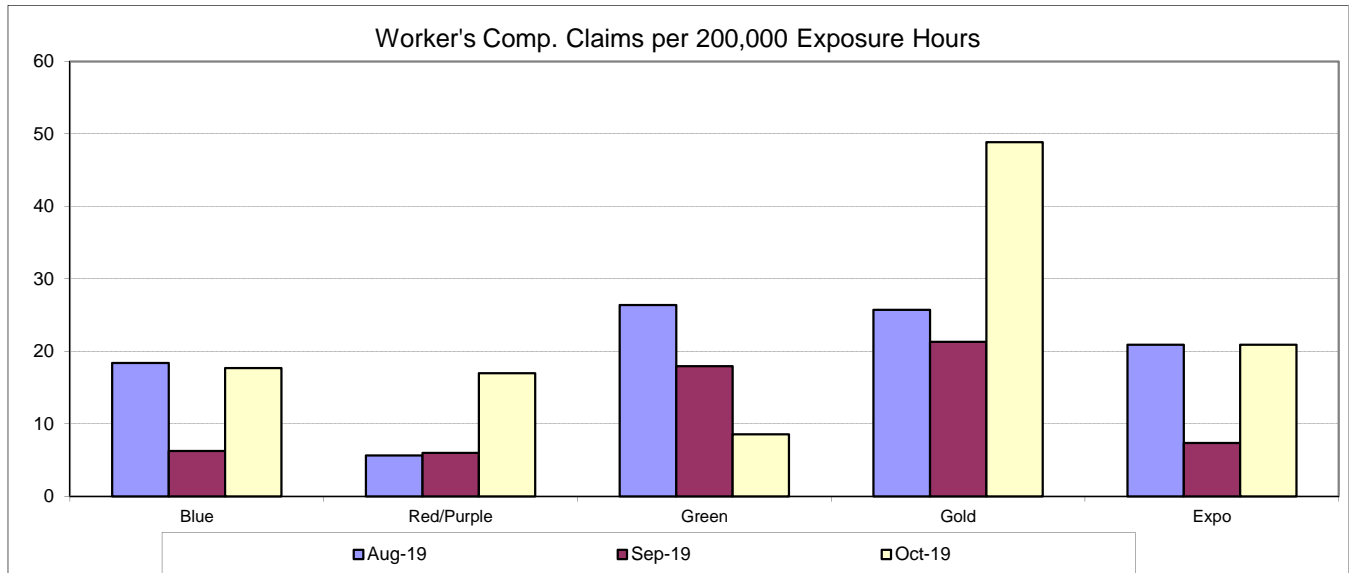
Worker's Comp. Claims

Aug 2019 - Oct 2019

3 Month Comparison

Worker's Comp Definition: Number of new reported Workers Compensation Indemnity and Medical claims filed per 200,000 exposure hours. This indicator measures safety.

Calculation: New reported Workers' Compensation Indemnity and Medical claims filed per 200,000 Exposure Hours = New Claims/(Exposure Hours/200,000)



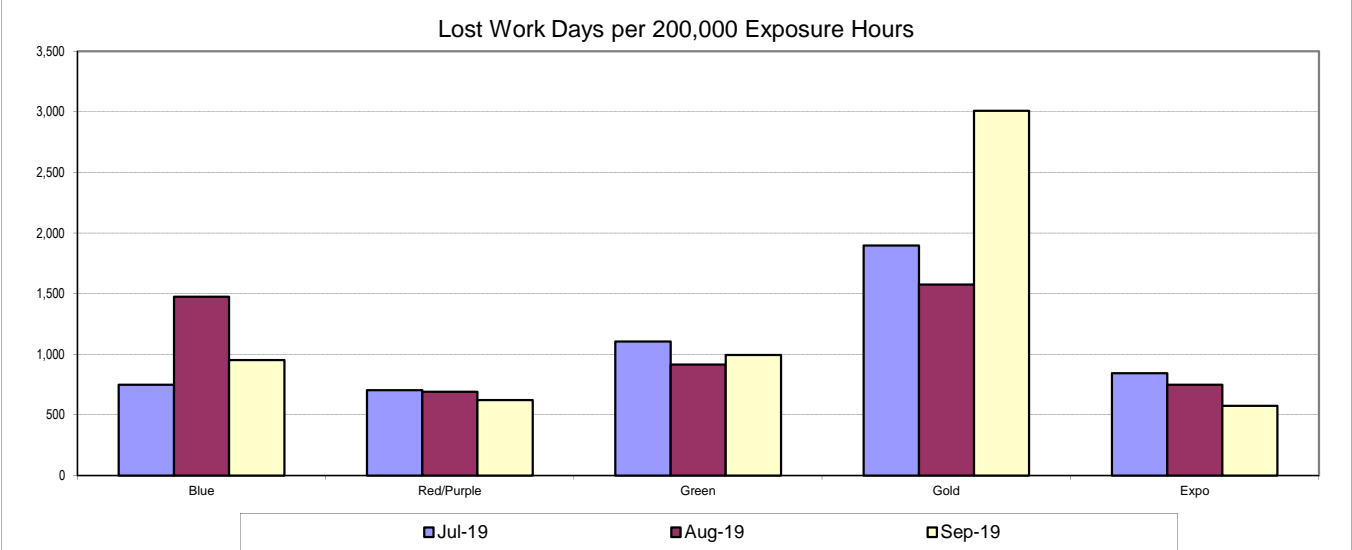
Lost Work Days and OSHA Injuries

Jul 2019 - Sep 2019

3 Month Comparison

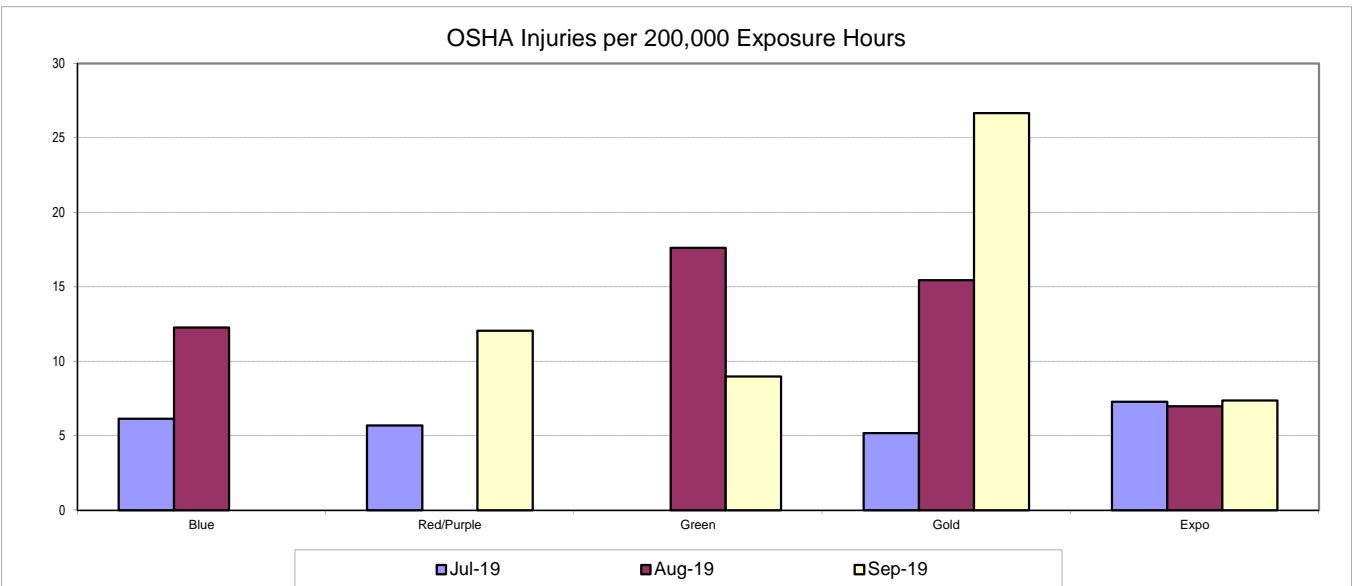
LWD Definition: Number of paid working days lost due to employees workers' compensation injuries each month per 200,000 exposure hours. This indicator measures use of Transitional Duty Program.

Calculation: : (Total Temporary Disability Benefit Payments / Estimated TD Benefit Rate) x (5/7) / (Number Exposure Hours / 200,000)"



OSHA Definition: Work-related injuries and illnesses that result in: death, loss of consciousness, days away from work, restricted work activity or job transfer, or medical treatment beyond first aid which are filed per 200,000 exposure hours.

Calculation: New OSHA Injuries filed per 200,000 Exposure Hours = New Injuries / (Exposure Hours/200,000)



Note: There is a one month lag in Lost Work Days and OSHA data.

BLUE LINE

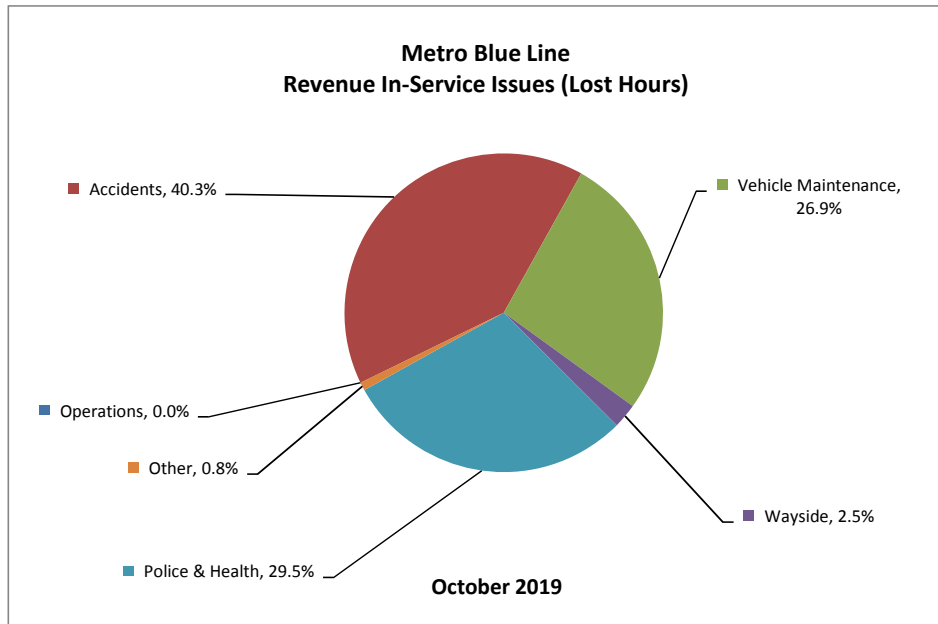
Out of a total of 10,188 hours operated, there were approximately 12 total hours of service delays.

October 2019 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	10,176	99.9%
Cancelled + Delayed Hours	12	0.1%
Total Revenue Hours	10,188	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	0	0.0	0.0%
Accidents	2	4.8	40.3%
Vehicle Maintenance	3	3.2	26.9%
Wayside	2	0.3	2.5%
Police & Health	6	3.5	29.5%
Other	1	0.1	0.8%
Total	14	11.9	100.0%

* Data from M3 used to report Service Delays is under review for accuracy

The number of incidents on the following page may differ from the summary count due to some incidents not properly designated as Cancelled or Delayed



October 2019 Blue Line incidents causing delay were as follows:

Accidents:

10/12/2019 7:04:00 PM - Incident# 3212938 (1 lost trip, 116 lost minutes)

Operator T-59 had a 10-72 just north of Wardlow station by the 405 freeway.

T-59

Cars (1121)-1076

North of Wardlow, track 2 southbound

10/30/2019 5:58:00 PM - Incident# 3220429 (1 lost trip, 174 lost minutes)

Train 101

T-216

(1105B)-1091-1080

Broadway & Long Beach Blvd, Track 1, Southbound

T-216 reported vehicle vs. train at Broadway and Long Beach Blvd. Operating out of LRV 1105 B.

Vehicle Maintenance Incidents:

10/7/2019 6:01:00 AM - Incident# 3210027 (1 lost trip, 185 lost minutes) CHARGEABLE

Prop/Fault, and no indications.

Train #102.

T-321.

LRV- (1112B), 1099, 1137.

Pacific Station, Track #1, Northbound

10/9/2019 3:07:00 PM - Incident# 3211774 (0 lost trips, 5 lost minutes) CHARGEABLE

No fault, no movement 1121,1093(1118B).

Compton Station

Train #101, T-75, track #2, southbound.

10/25/2019 2:18:00 PM - Incident# 3218384 (0 lost trips, 4 lost minutes)

Auto Train Protection (Speed Limit), cars #(1135B)-1099-1092

Train #104

T-494

Del Amo Station, track 1, Northbound

Wayside Incidents:

10/12/2019 9:02:00 AM - Incident# 3212792 (0 lost trips, 12 lost minutes)

TP-63 requested a mainline access form to enter the mainline to repair a damaged section insulator within Main Yard Interlocking.

TP-63 (EIC)

TP-000 (WATCHPERSON)

10/13/2019 10:29:00 AM - Incident# 3213070 (0 lost trips, 6 lost minutes)

TP162 requested breakers be opened at Main Yard TPSS, Del Amo TPSS, and Wardlow TPSS.

Police & Health Incidents:

10/2/2019 12:28:00 PM - Incident# 3208116 (1 lost trip, 174 lost minutes)

Male patron assaulted on board train #104, 5th Street Station.

Cars # 1106-(1100)-1083.

10/16/2019 11:26:00 AM - Incident# 3214439 (0 lost trips, 10 lost minutes)

Blockade due to traffic accident.

10/22/2019 6:35:00 PM - Incident# 3217016 (0 lost trips, 6 lost minutes)

Transient holding up train

Train 104 T-149

5th St Southbound

1098-1106-1086

10/22/2019 7:17:00 PM - Incident# 3217026 (0 lost trips, 4 lost minutes)

Blockade/ Vehicle on ROW

Train 104 Tk 1

Northbound T-149

Alondra 1094-1103-1139

10/27/2019 12:13:00 PM - Incident# 3218906 (0 lost trips, 10 lost minutes)

Reported MTA not involved accident at Anaheim Station.

10/29/2019 8:45:00 AM - Incident# 3219625 (0 lost trips, 7 lost minutes)

Train 616 Hold at Pico Station Platform number 1 for LAPD.

Other Incidents:

Reset:

10/13/2019 4:44:00 AM - Incident# 3212994 (0 lost trips, 6 lost minutes)

T-182 reported that the HVAC in car (1130B) is too cold. The air comfort control breaker was reset, but the HVAC was still too cold.

T-182

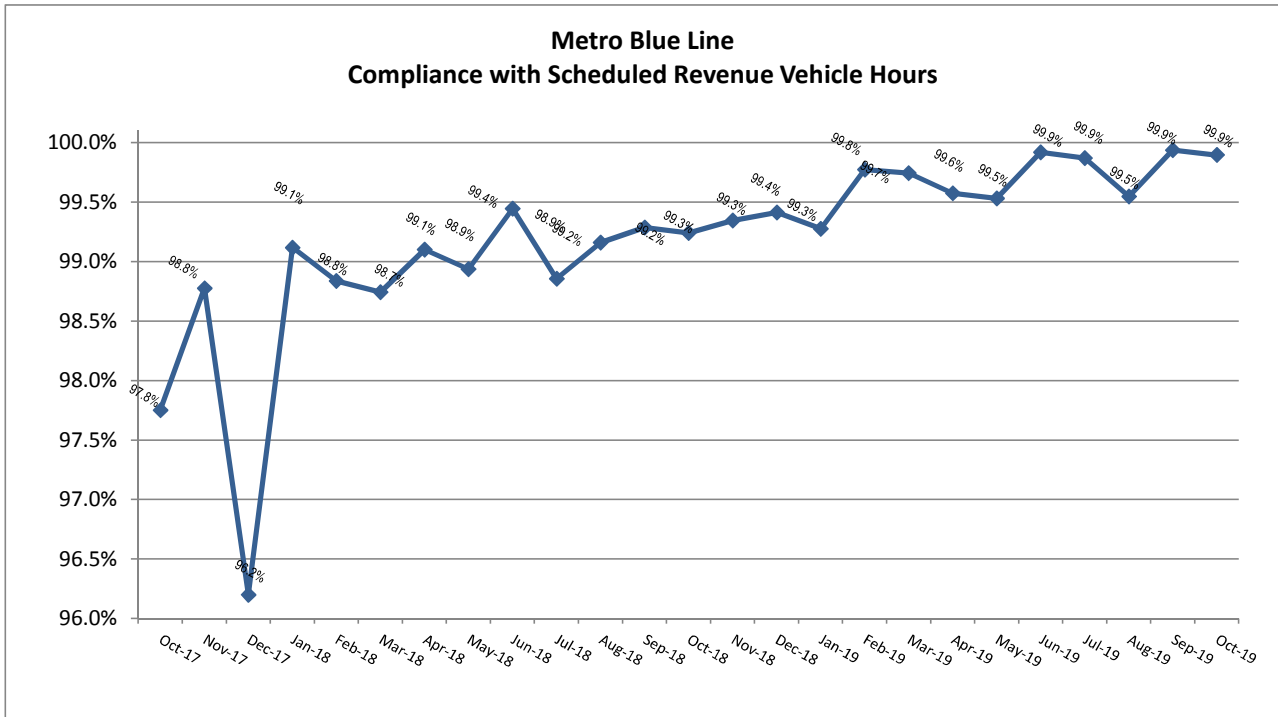
Train 106

(1130)-1140

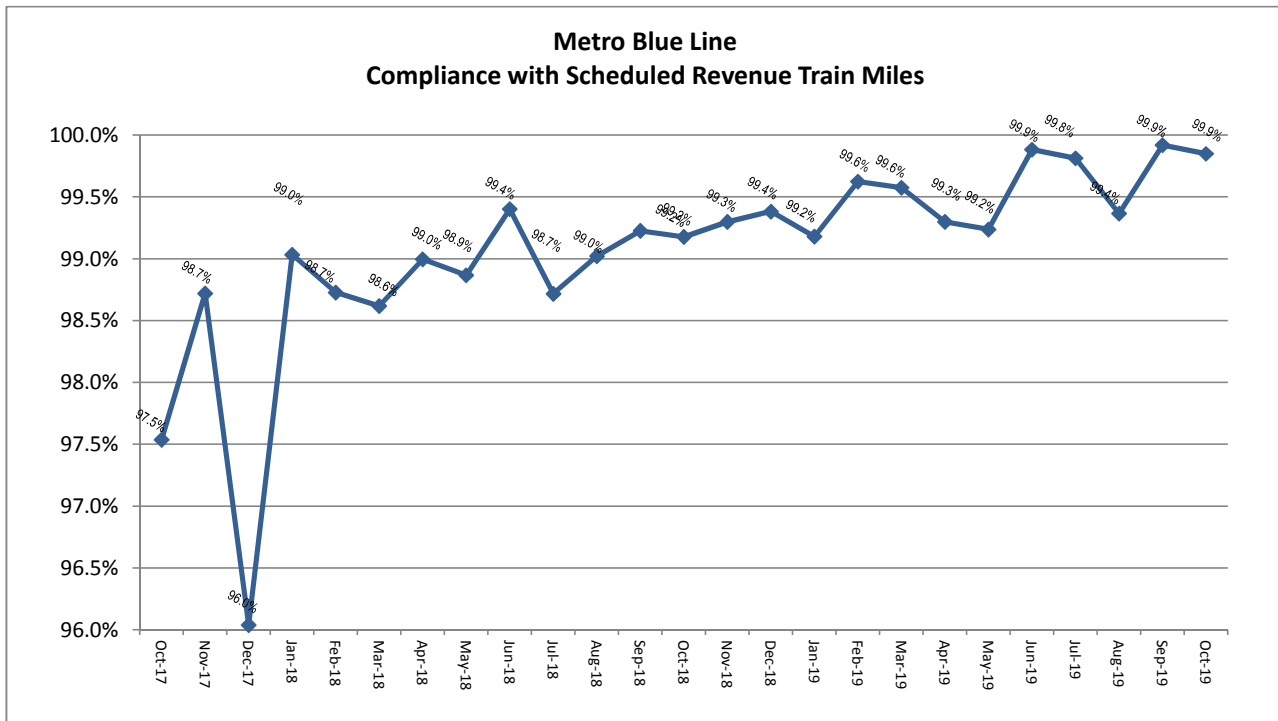
Northbound, Track 1

Willow Station

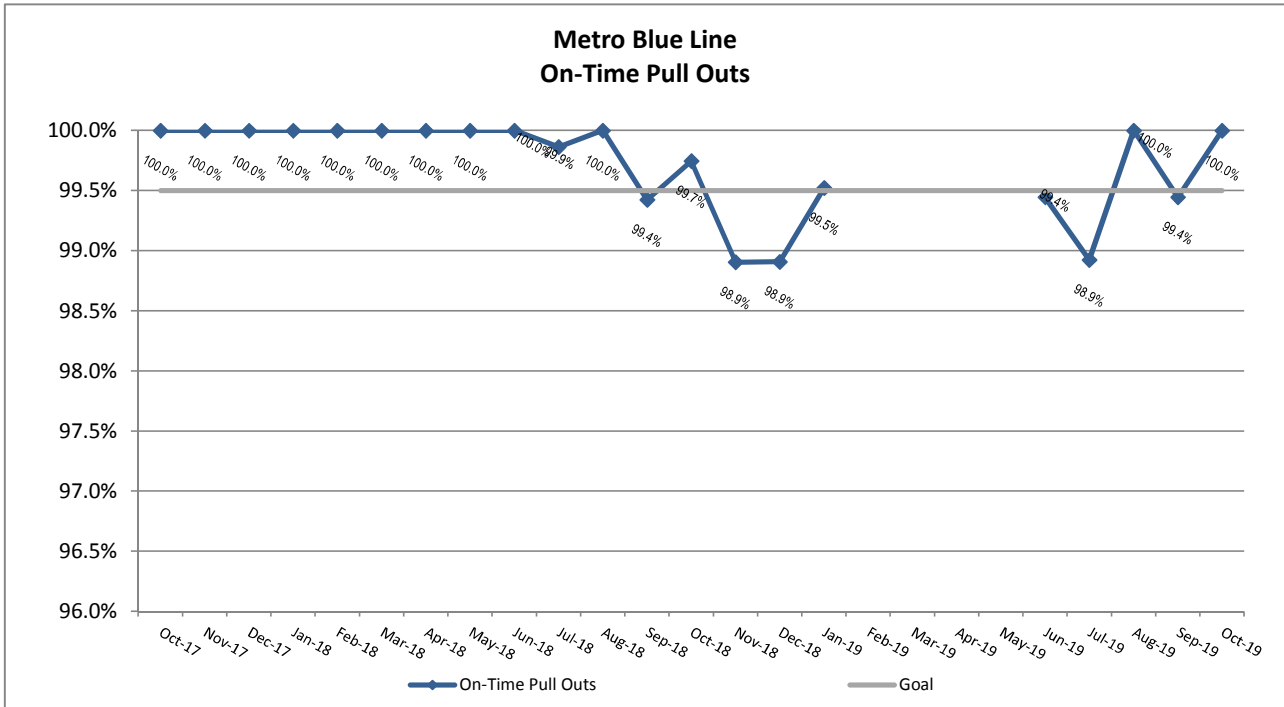
MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS
COMPLIANCE WITH SCHEDULED VEHICLE HOURS
Oct 2019



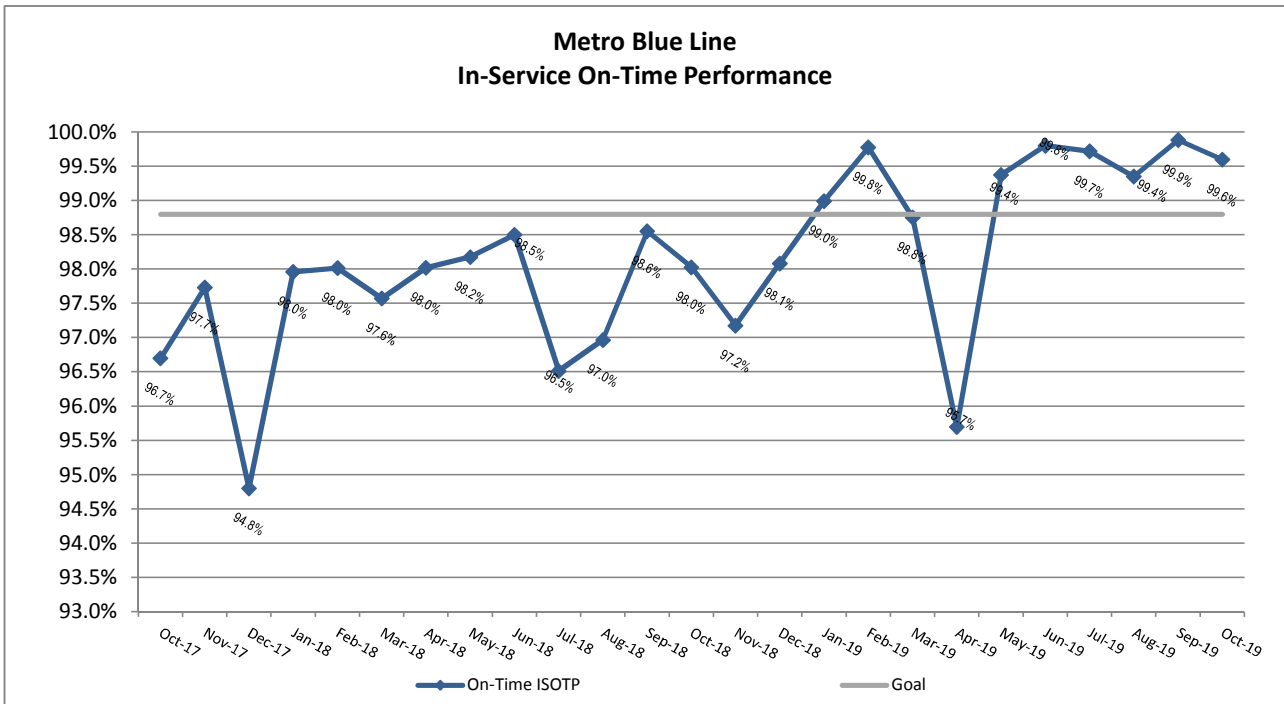
COMPLIANCE WITH SCHEDULED TRAIN MILES



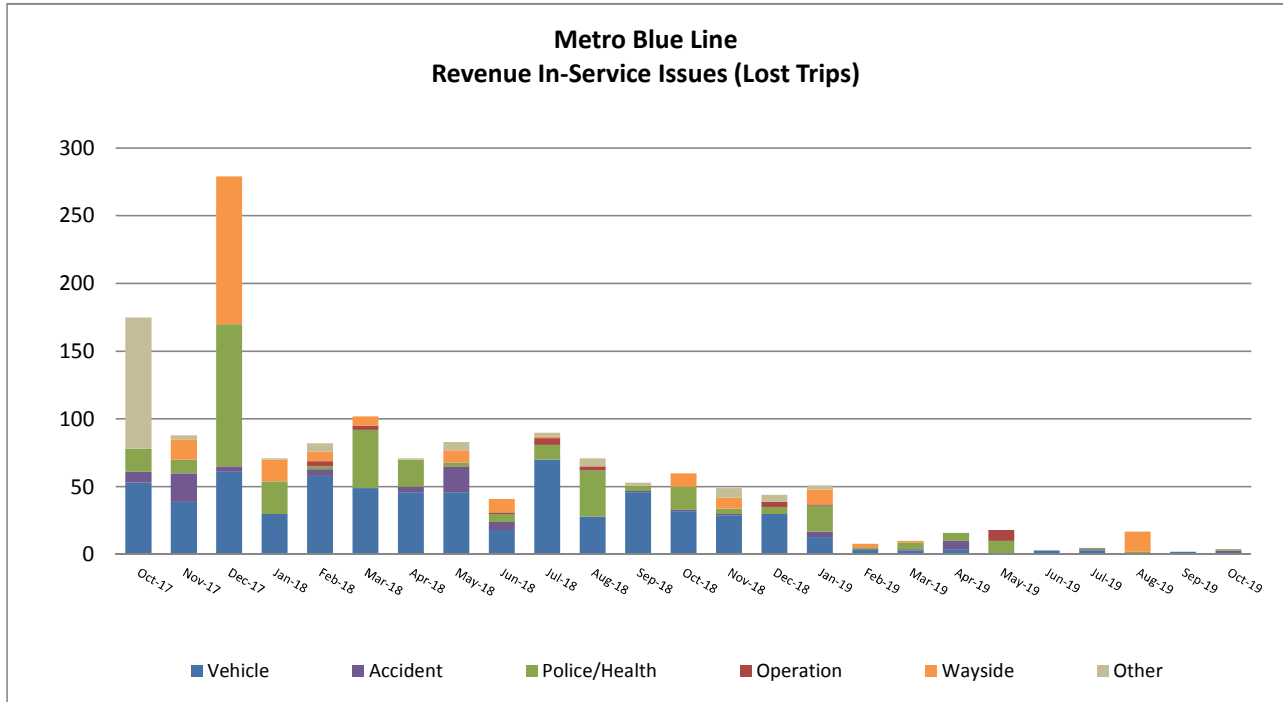
ON-TIME PULL OUTS



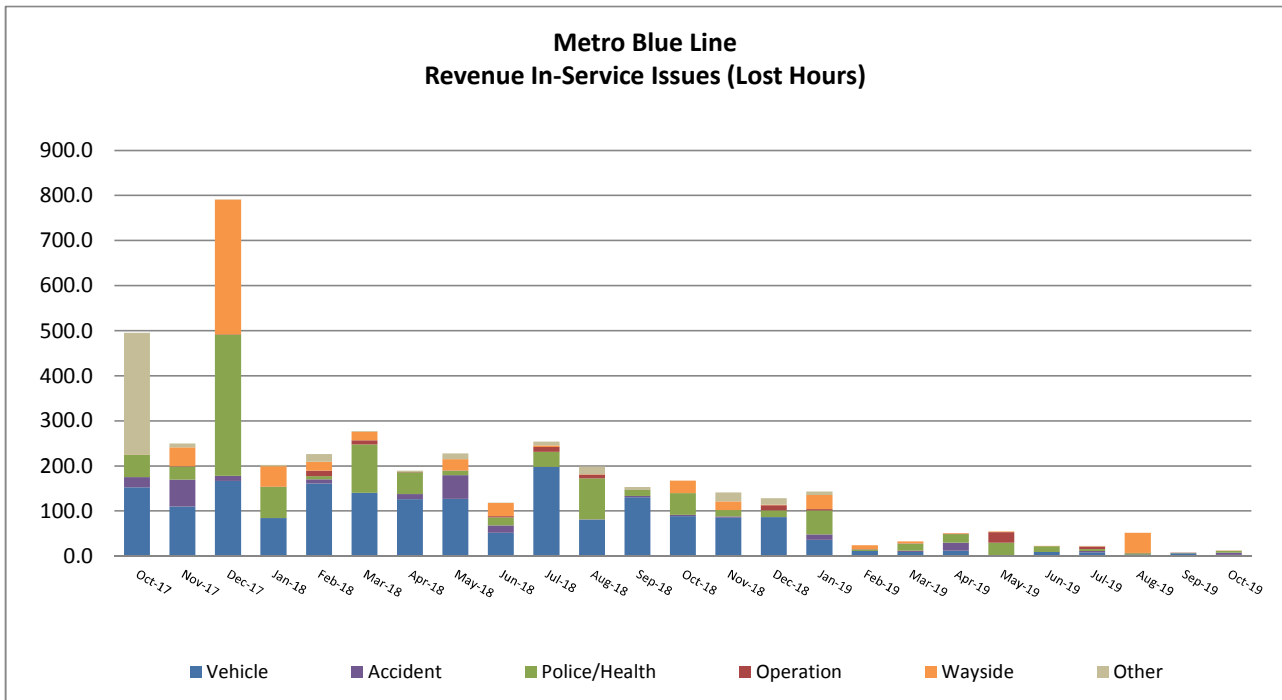
IN-SERVICE ON-TIME PERFORMANCE CHART



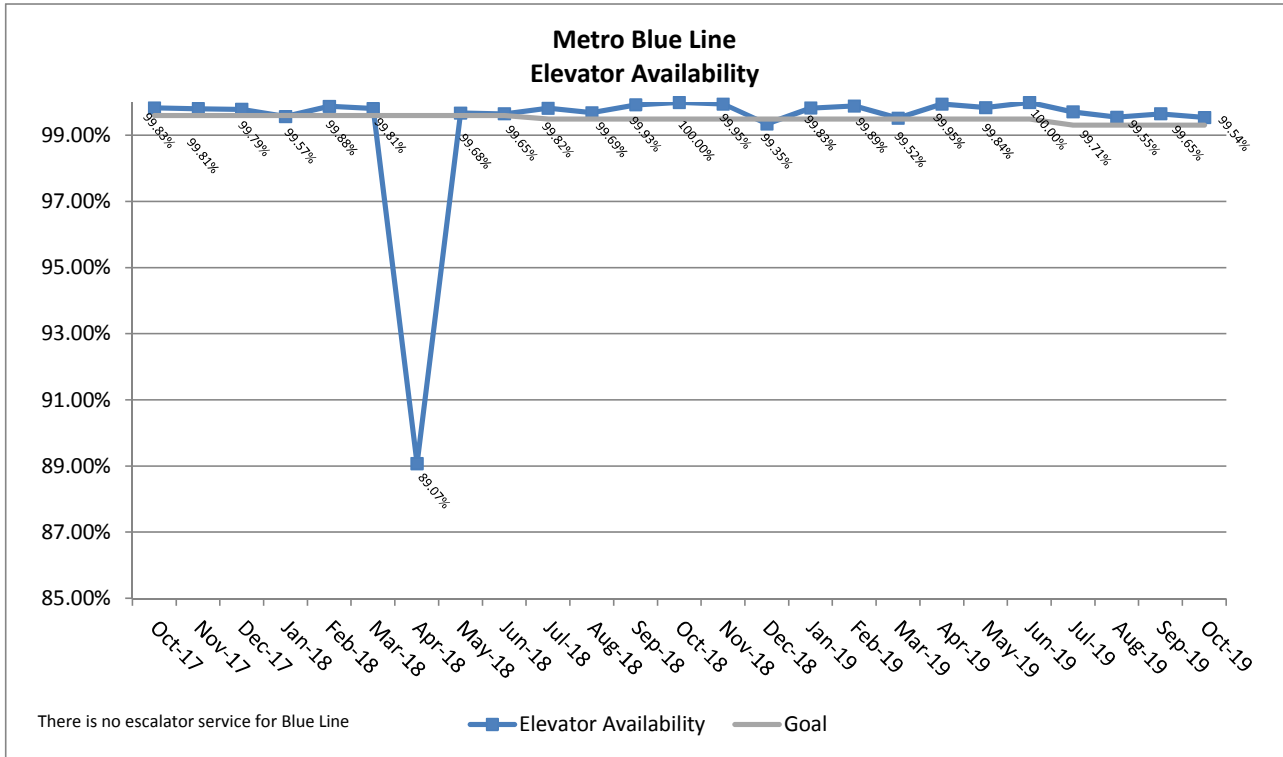
LOST TRIPS



LOST HOURS



VERTICAL TRANSPORTATION AVAILABILITY



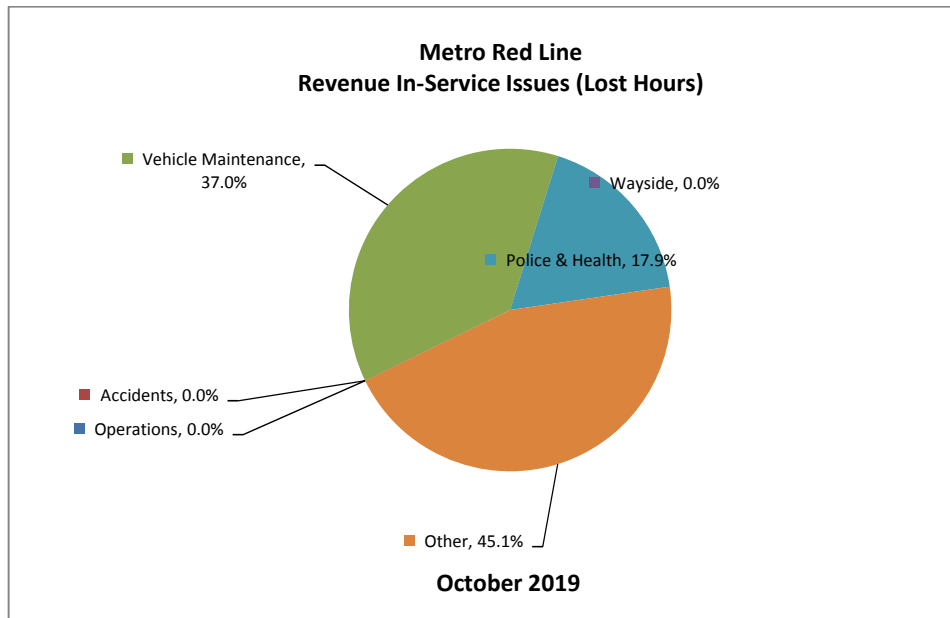
RED LINE

Out of a total of 27,158 hours operated, there were approximately 56 total hours of service delays.

October 2019 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	27,102	99.8%
Cancelled + Delayed Hours	56	0.2%
Total Revenue Hours	27,158	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	0	0.0	0.0%
Accidents	0	0.0	0.0%
Vehicle Maintenance	12	20.7	37.0%
Wayside	0	0.0	0.0%
Police & Health	2	10.0	17.9%
Other	4	25.2	45.1%
Total	18	55.9	100.0%

* Data from M3 used to report Service Delays is under review for accuracy
 The number of incidents on the following page may differ from the summary count due to some incidents not properly designated as Cancelled or Delayed



October 2019 Red Line incidents causing delay were as follows:

Vehicle Maintenance Incidents:

10/1/2019 8:20:00 AM - Incident# 3207522 (0 lost trips, 15 lost minutes) CHARGEABLE

T-007 reporting hearing an explosion underneath the train.

10/2/2019 1:59:00 PM - Incident# 3208137 (1 lost trip, 149 lost minutes) CHARGEABLE

T-7 operating operating Train # 213 reports emergency brakes applying in car # 527 and unable to open all doors.

10/3/2019 8:51:00 AM - Incident# 3208490 (0 lost trips, 10 lost minutes) CHARGEABLE

Train 210 smoke emitted @ North Hollywood AR platform

501-(502)/523-528/507-510

T-169

10/11/2019 6:11:00 PM - Incident# 3212676 (5 lost trips, 756 lost minutes) CHARGEABLE

No Fault - No Movement

Train 214

T-012

591-592-575-576-545-546

AR, Hollywood/Highland station Westbound.

10/13/2019 10:50:00 PM - Incident# 3213189 (0 lost trips, 10 lost minutes) CHARGEABLE

Operator reports flashing cab signal & emergency brake application on car 590.

Train 206

T-420

Cars 571 572 601 602 589 (590).

Universal AL east.

10/14/2019 8:22:00 AM - Incident# 3213325 (0 lost trips, 4 lost minutes)

Propulsion failure (502)

Train 202

T-295

501-502/507-510

Willshire Normandie, AL Eastbound

10/17/2019 7:15:00 PM - Incident# 3215159 (0 lost trips, 12 lost minutes) CHARGEABLE

Doors fail close. #5 & 7.

Train #217

T-199

Cars #583-584-561-(562)-603-604.

E/Bound Hollywood Highland Station A/L Track.

10/21/2019 7:02:00 AM - Incident# 3216180 (0 lost trips, 5 lost minutes) CHARGEABLE

Propulsion failure and service brake failure trainline.

Train 201

T-364

533-34/(541-42)/581-82

7/Metro, AL, east

10/24/2019 4:29:00 PM - Incident# 3218006 (1 lost trip, 149 lost minutes) CHARGEABLE

T-169 reports Flashing Cab signals and Emergency Brakes that Will Not clear with EMO. Car # 567 WM AR W.

10/25/2019 10:52:00 AM - Incident# 3218300 (0 lost trips, 8 lost minutes) CHARGEABLE

Train #210 593-594-601-(602) North Hollywood AL Eastbound with Propulsion failure and flashing cab signal trough North Hollywood interlocking.

10/26/2019 9:25:00 AM - Incident# 3218632 (1 lost trip, 116 lost minutes) CHARGEABLE

LVPS Failure

Train 203

T-365

Cars (527)-522-517-518

Universal City AR West

10/30/2019 6:25:00 PM - Incident# 3220446 (0 lost trips, 10 lost minutes)

Due to lack of equipment Train #218, replaced at North Hollywood with a four car consist.

Police & Health Incidents:

10/11/2019 6:30:00 AM - Incident# 3212381 (4 lost trips, 599 lost minutes)

10/13/2019 6:41:00 AM - Incident# 3213021 (0 lost trips, 6 lost minutes)

LAPD removed male from train 205 (589)

T-147

571-572/601-602/589-590

Union station AL

Other Incidents:

10/9/2019 2:36:00 PM - Incident# 3211782 (8 lost trips, 1,194 lost minutes)

Trespasser activated deluge system at Wilshire Western Station at 1436 hours. FCP Fire Detect Summary Alarm activated.

10/13/2019 12:04:00 PM - Incident# 3213084 (0 lost trips, 10 lost minutes) CHARGEABLE

Smoke coming out of train.

Train 201

T-378

577-578-603-604-535-(536)

Pershing Square AL West

Unable To Duplicate:

10/3/2019 5:48:00 AM - Incident# 3208367 (0 lost trips, 10 lost minutes)

Prop fault: No movement

Train 205

T-350

503-504/515-516/514-51

North Hollywood, AR, Eastbound

Reset:

10/24/2019 5:37:00 AM - Incident# 3217637 (2 lost trips, 298 lost minutes)

Train # 206 out late from the yard due to loss of power on cars (529/520).

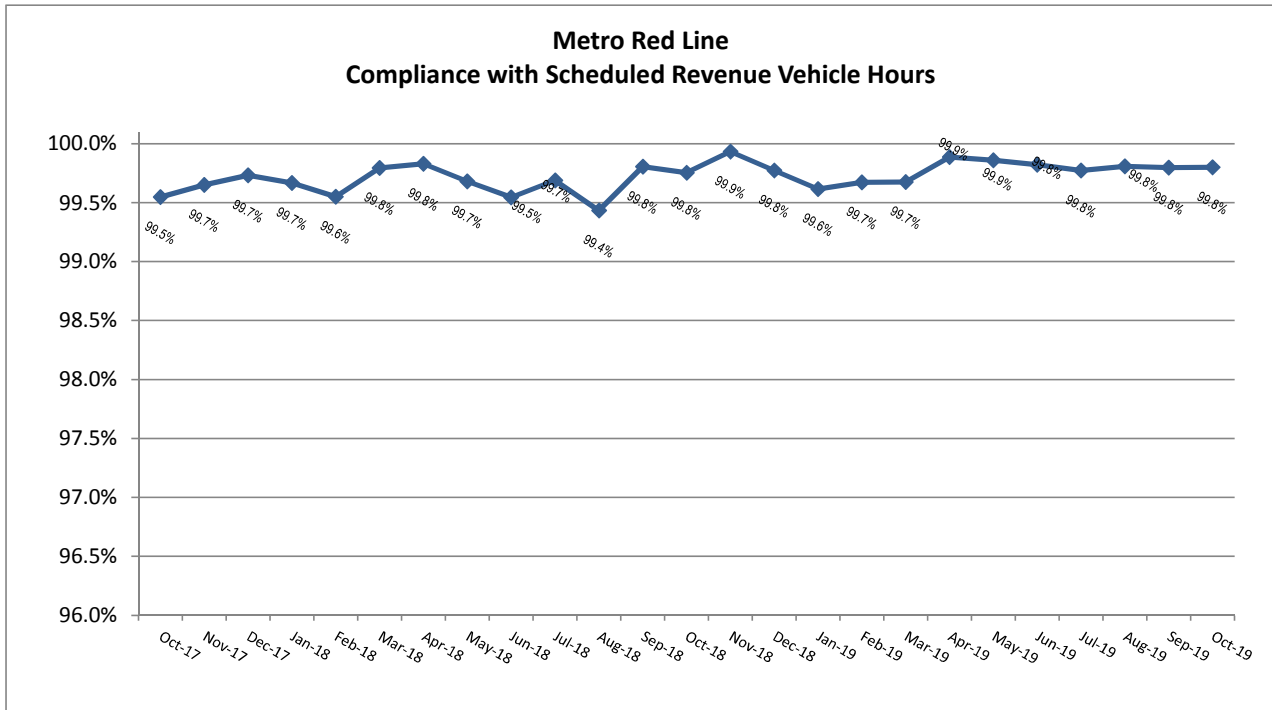
Train # 206

T-271

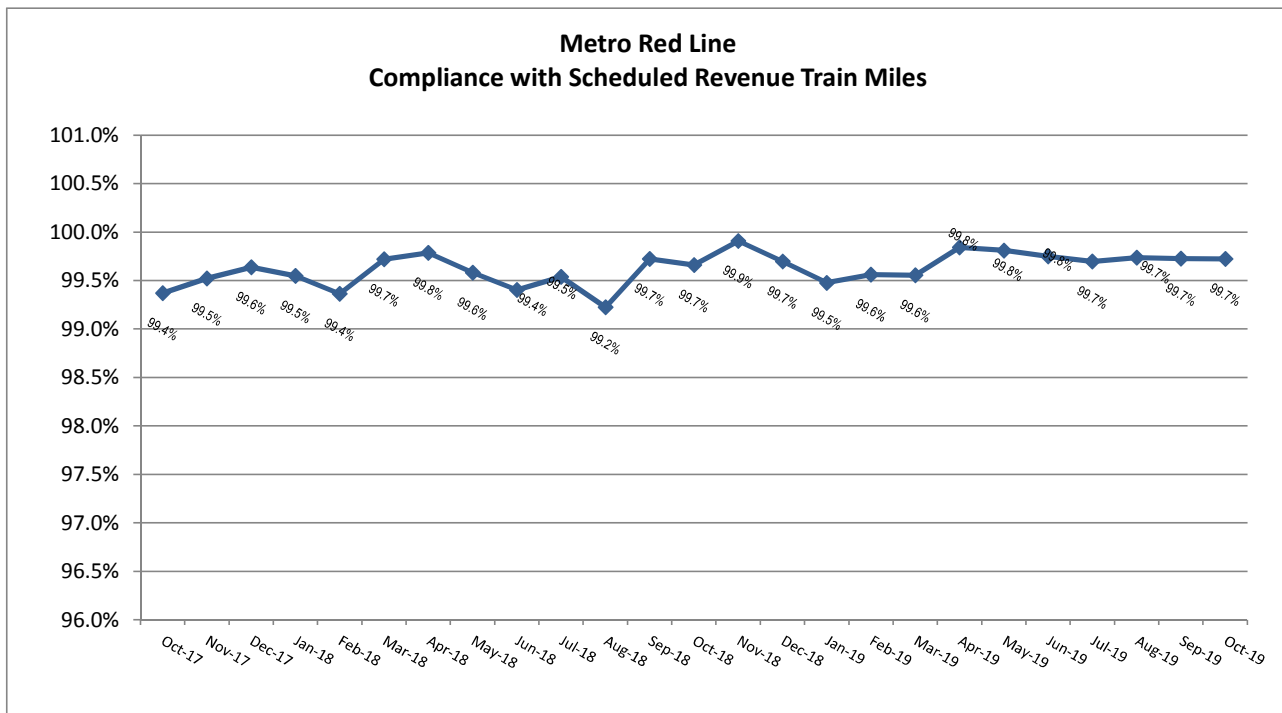
Yard Limits, YR.

529 520 501 502

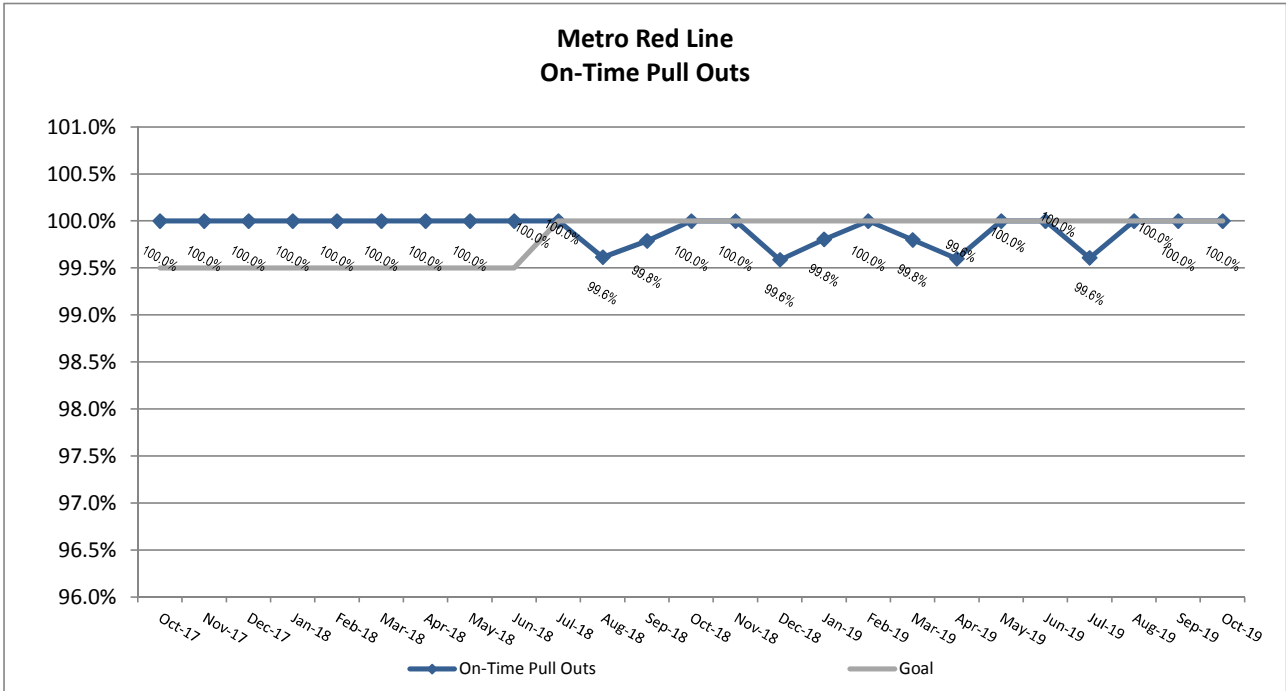
MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS
COMPLIANCE WITH SCHEDULED VEHICLE HOURS
Oct 2019



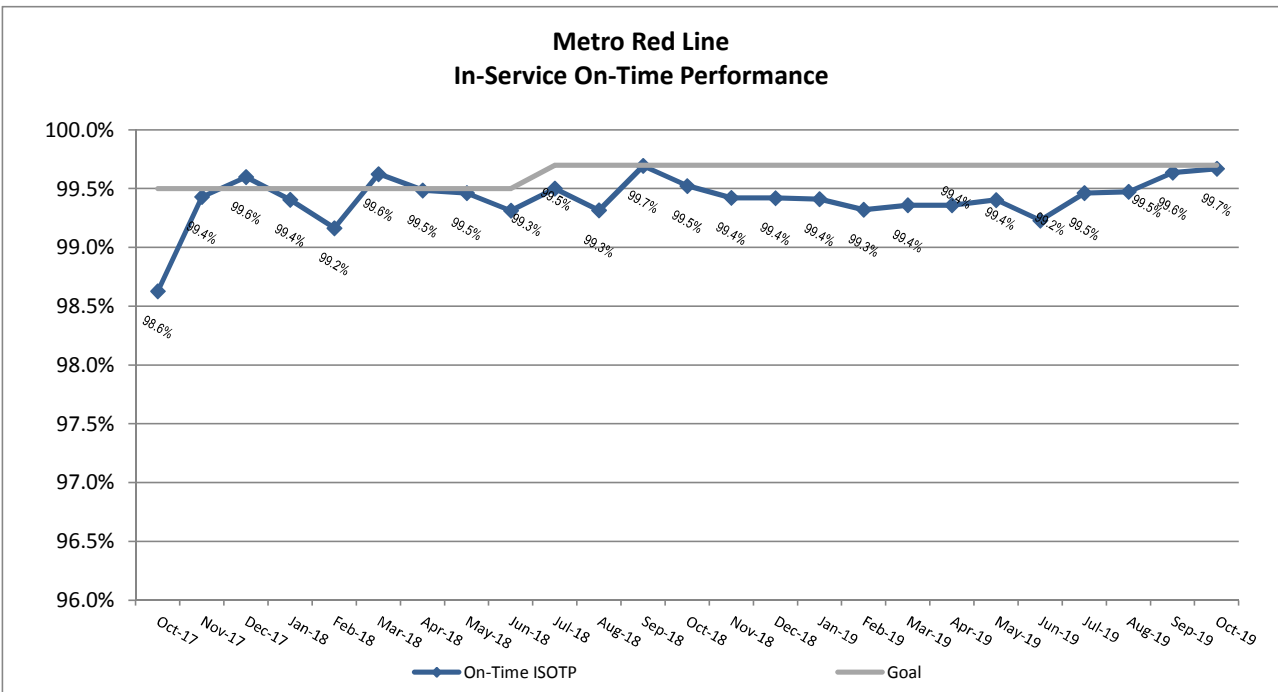
COMPLIANCE WITH SCHEDULED TRAIN MILES



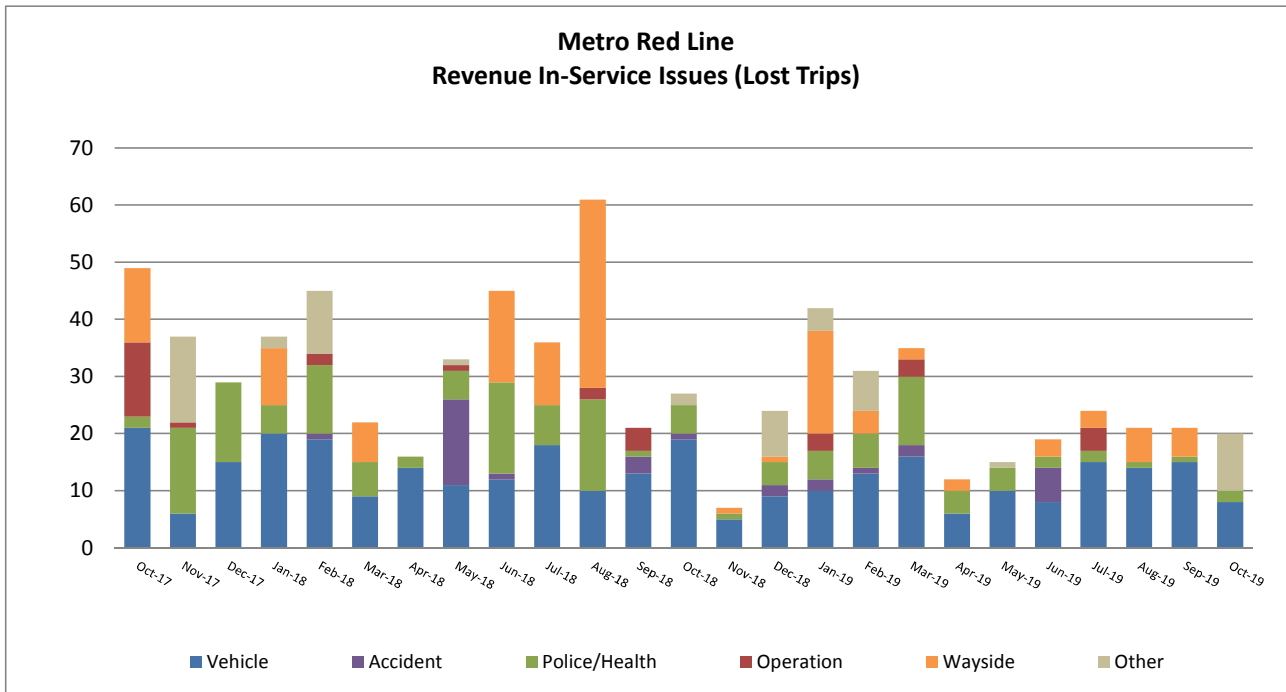
ON-TIME PULL OUTS



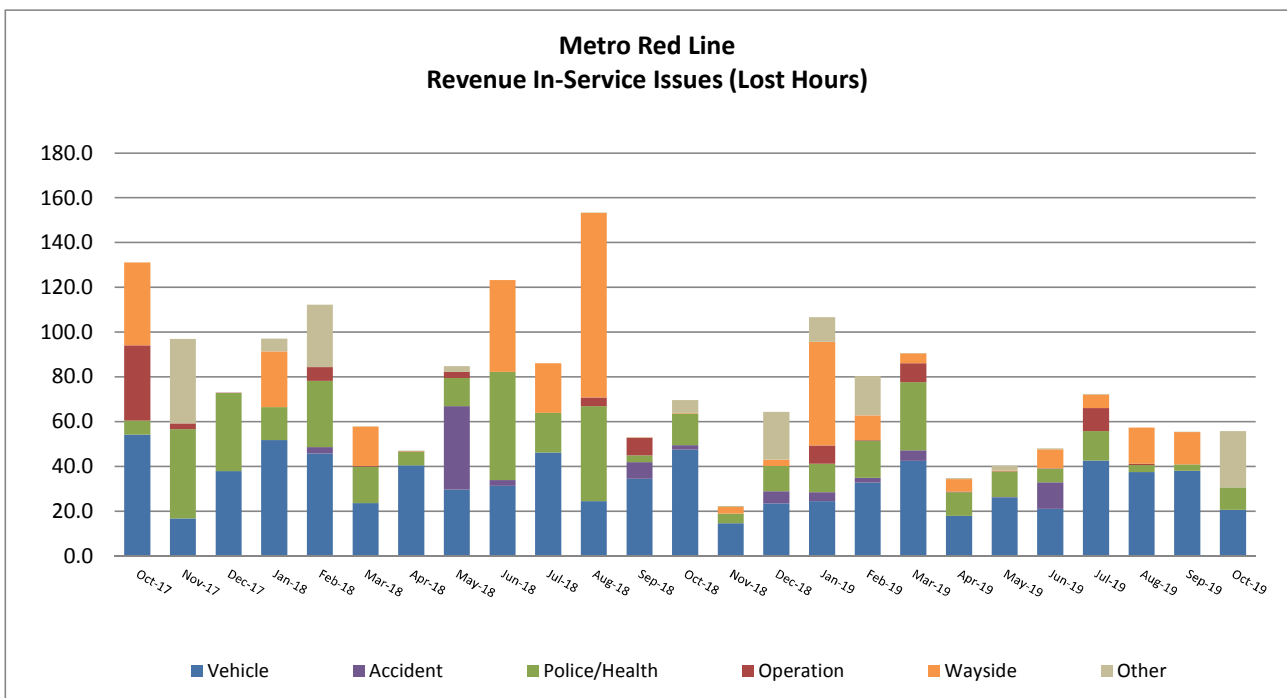
IN-SERVICE ON-TIME PERFORMANCE



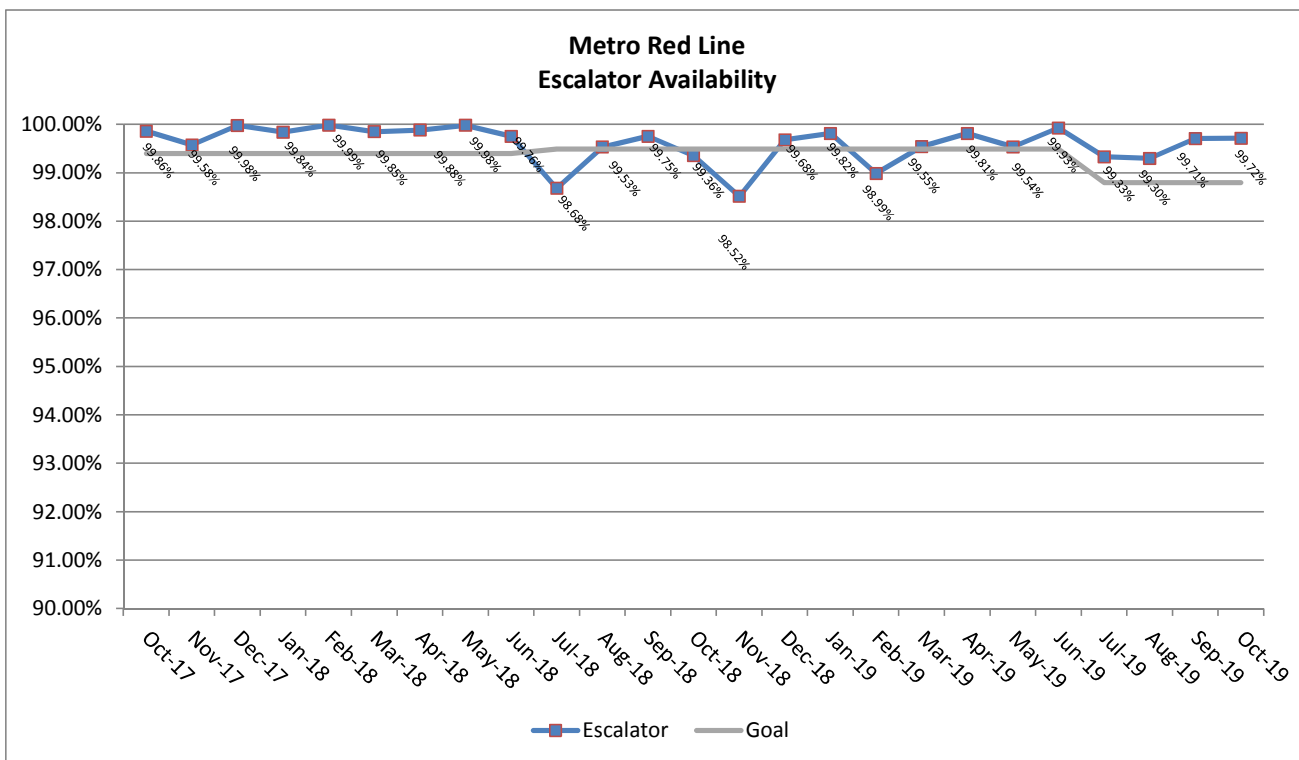
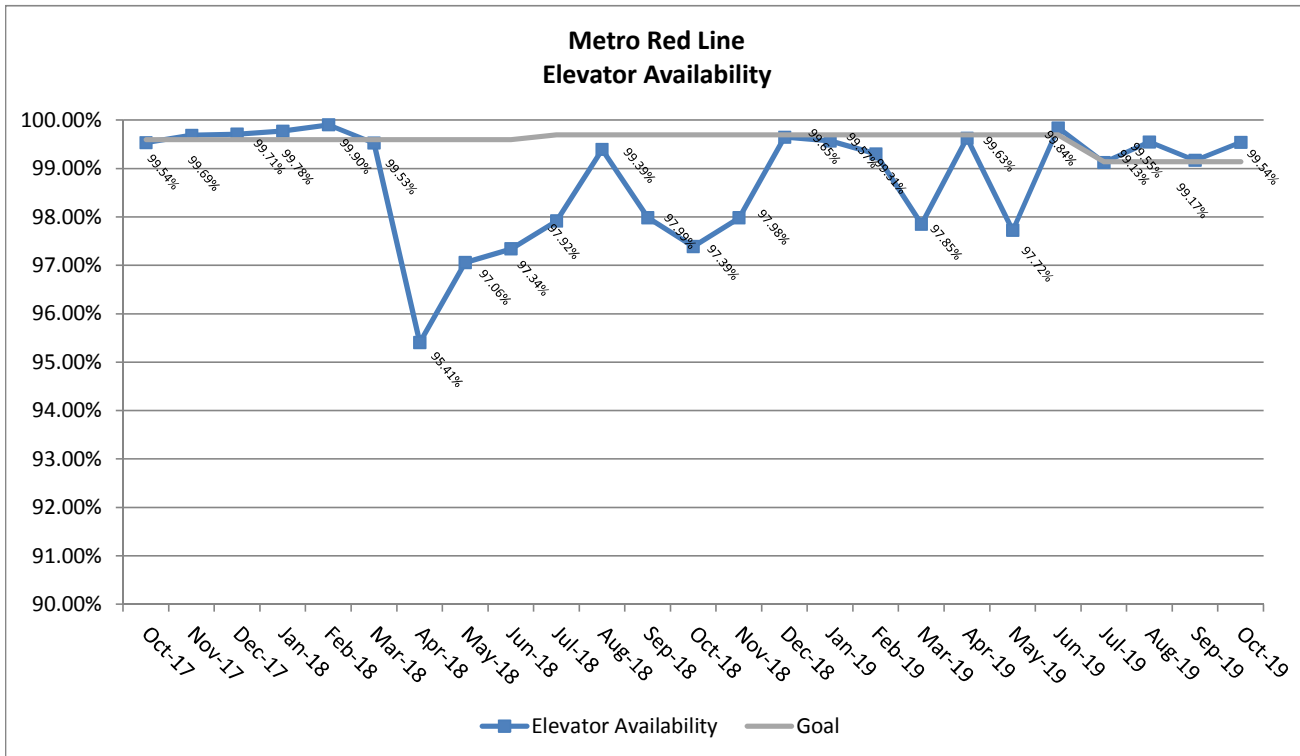
LOST TRIPS



LOST HOURS



VERTICAL TRANSPORTATION AVAILABILITY



GREEN LINE

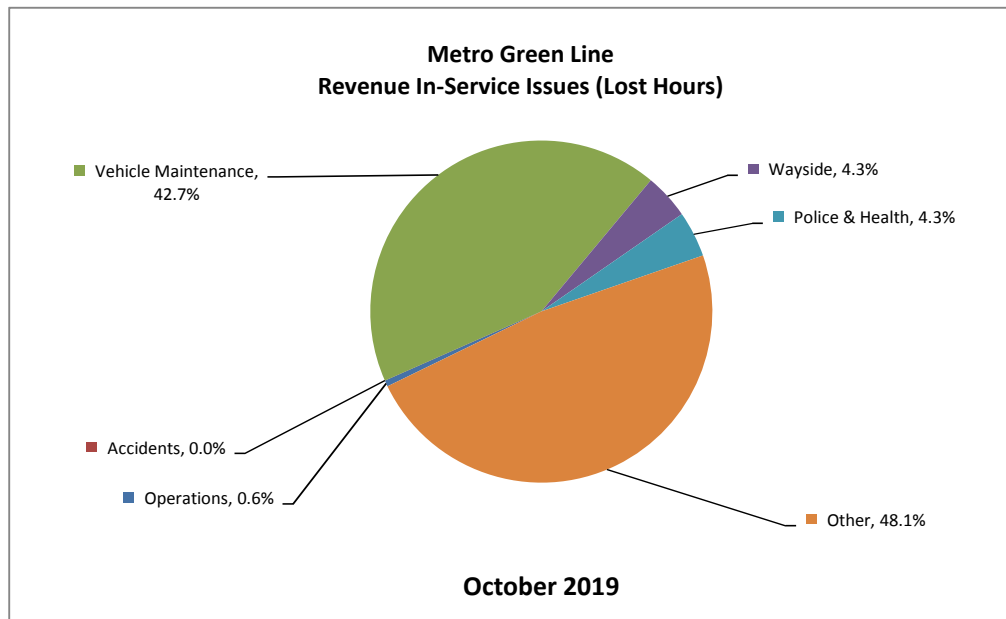
Out of a total of 9,814 hours operated, there were approximately 19 total hours of service delays.

October 2019 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	9,795	99.8%
Cancelled + Delayed Hours	19	0.2%
Total Revenue Hours	9,814	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	1	0.1	0.6%
Accidents	0	0.0	0.0%
Vehicle Maintenance	12	7.9	42.7%
Wayside	7	0.8	4.3%
Police & Health	4	0.8	4.3%
Other	14	8.9	48.1%
Total	38	18.5	100.0%

* Data from M3 used to report Service Delays is under review for accuracy

The number of incidents on the following page may differ from the summary count due to some incidents not properly designated as Cancelled or Delayed



October 2019 Green Line incidents causing delay were as follows:

Operations Incidents:

10/29/2019 6:30:00 PM - Incident# 3219933 (0 lost trips, 7 lost minutes)

Train 356

Track #2 Eastbound

Norwalk

T-141

At Norwalk Signal #2 the route was set for platform #2 while currently occupied by a consist.

Vehicle Maintenance Incidents:

10/10/2019 1:03:00 PM - Incident# 3212194 (1 lost trip, 66 lost minutes)

Propulsion fault no movement.

Train 334

T-348

(1173)-1144

Track 1

Westbound

Long Beach station

10/11/2019 3:57:00 PM - Incident# 3212643 (2 lost trips, 130 lost minutes) CHARGEABLE

Cab Signal Loss

Train 332

T-296

1149-(1177)

Track 2

Eastbound

Marine

10/13/2019 11:00:00 PM - Incident# 3213190 (0 lost trips, 10 lost minutes) CHARGEABLE

Other Vehicle System

10/14/2019 5:07:00 AM - Incident# 3213241 (1 lost trip, 74 lost minutes) CHARGEABLE

Train-331 T-409 cars 202/216 without cab signals on car 202B.

10/14/2019 5:04:00 PM - Incident# 3213607 (0 lost trips, 10 lost minutes) CHARGEABLE

Train 332

T-257

Operator reports propulsion failure unable to clear in car 1174.

Lakewood Track 1 west

(1174), 1149

10/15/2019 6:25:00 AM - Incident# 3213779 (1 lost trip, 73 lost minutes) CHARGEABLE

Propulsion fault with speed restriction on car (220B).

Train 334

T-277

(220B)-216

Lakewood Station, Track 1, Westbound.

10/17/2019 5:50:00 AM - Incident# 3214813 (0 lost trips, 4 lost minutes)

Propulsion / Dynamic Brakes, car #(217)-243

Train #344

T-113

Marine Station, track#2, Eastbound.

10/21/2019 6:30:00 AM - Incident# 3216163 (0 lost trips, 4 lost minutes)

Propulsion / Dynamic Brakes, car #(1155A)-1156

Train #343

T-055

Aviation Station, track #1, Westbound.

10/22/2019 1:50:00 PM - Incident# 3216891 (0 lost trips, 12 lost minutes) CHARGEABLE

Train 336 reports of Friction Brake Fault and Prop Fault.

T-71

Train 336

Cars: 205-(208)

WB Tk-1 Aviation Station

10/23/2019 6:53:00 AM - Incident# 3217153 (0 lost trips, 10 lost minutes) CHARGEABLE

Loss of Cab signals

Train #333 T-136, Car #1184B-1149

westbound at Harbor station.

10/25/2019 12:30:00 PM - Incident# 3218336 (1 lost trip, 68 lost minutes) CHARGEABLE

Train 335 reporting propulsion faults with a speed restriction.

train 335

T-057

LRV'S (208a)-206

Avalon Station track 2 eastbound.

10/31/2019 4:11:00 PM - Incident# 3220860 (0 lost trips, 15 lost minutes) CHARGEABLE

Train 337

T-96

LRV Cars(227A)-202

EB Departing Marine Station TK 2

Operator reported of intermittent loss of cab signals departing the station.

Wayside Incidents:

10/1/2019 10:05:00 AM - Incident# 3207563 (0 lost trips, 10 lost minutes)

OCS Repairs from Wilmington West Interlocking to Vermont West Interlocking, Track

10/3/2019 6:01:00 AM - Incident# 3208381 (0 lost trips, 11 lost minutes)

Norwalk Interlocking Track 1. False Occupancy Track Circuit 1085.

10/6/2019 5:31:00 PM - Incident# 3209591 (0 lost trips, 3 lost minutes)

False occupancy, Norwalk west interlocking

Train 334

T-292

220-202

Track 1

Westbound

10/25/2019 11:22:00 AM - Incident# 3218310 (0 lost trips, 9 lost minutes)

False Occupancy Signal 6 Norwalk.

10/25/2019 1:21:00 PM - Incident# 3218366 (0 lost trips, lost minutes)

Green Line Yard loss power due to open breakers, A06, B01 and B14 at the Yard TPSS.

0 los minutes.

10/27/2019 10:45:00 AM - Incident# 3218899 (0 lost trips, 6 lost minutes)

Aviation East IL

10/29/2019 3:44:00 PM - Incident# 3219908 (0 lost trips, 9 lost minutes)

Marine Interlocking displayed a Code Failure

Police & Health Incidents:

10/5/2019 7:50:00 PM - Incident# 3209401 (0 lost trips, 10 lost minutes)

Animal Other/ Canine on the ROW

10/10/2019 2:20:00 PM - Incident# 3212201 (0 lost trips, 10 lost minutes)

Trespasser reported east of Hawthorne station.

10/10/2019 5:23:00 PM - Incident# 3212255 (0 lost trips, 15 lost minutes)

Trespasser reported on the west end of Avalon station.

10/28/2019 12:02:00 AM - Incident# 3219027 (0 lost trips, 13 lost minutes)

Sick Individual.

Other Incidents:

10/28/2019 10:15:00 AM - Incident# 3219279 (1 lost trip, 66 lost minutes)

MTA/TSB advises second hand report of medical emergency on-board car 1141B (Train-336 T-105 cars 1141-1155).

10/6/2019 2:00:00 AM - Incident# 3209444 (0 lost trips, 10 lost minutes)

Patron requesting medical / Chest Pains

Train # 335, Car # 1171

T-450, Wilmington Station, EB

10/10/2019 8:05:00 AM - Incident# 3211994 (1 lost trip, 66 lost minutes)

Train 341 / Operator T-113 / Consist (1168)-1169

T-113 reports feces in car 1168.

Operator instructed to recover the consist to the yard from Norwalk Station out of service.

10/10/2019 12:49:00 PM - Incident# 3212148 (0 lost trips, lost minutes)

Possible seizure on train 332, 0 lost minutes.

T-096

1143-(1170)

Track 2

Marine station

Eastbound

10/12/2019 3:20:00 PM - Incident# 3212892 (0 lost trips, 12 lost minutes)

Seizure on train 331

10/18/2019 5:40:00 AM - Incident# 3215258 (0 lost trips, 6 lost minutes)

Sick Car.

Train #342.

T-078.

LRV- (1151A), 1144.

Norwalk Station, Track #1, Westbound.

10/21/2019 8:23:00 AM - Incident# 3216236 (0 lost trips, 6 lost minutes)

Emergency: Patron Sick, cars #(243A)-209

Train #341

T-113

Vermont Station, track #1, Westbound.

10/27/2019 9:04:00 PM - Incident# 3219016 (0 lost trips, 18 lost minutes)

Sick Individual.

Unable To Duplicate:

10/24/2019 4:19:00 AM - Incident# 3217617 (2 lost trips, 147 lost minutes)

Re-occurring ATP fail

Train 333

T-79

1187-(1183)

Aviation, tk 2, Eastbound

Reset:

10/3/2019 10:38:00 AM - Incident# 3208544 (1 lost trip, 66 lost minutes)

Train 335 / Operator T-057 / Consist (208),202

Loss of cab signal. No movement track 2 at El Segundo Station.

10/14/2019 6:07:00 AM - Incident# 3213257 (0 lost trips, 5 lost minutes)

Train-341 T-68 cars 208/209 with propulsion faults.

10/20/2019 10:35:00 PM - Incident# 3216088 (1 lost trip, 65 lost minutes)

Propulsion fault with a speed restriction.

Train #333, T-294

Car #202

WB, Long Beach Station, Track #1

10/23/2019 1:49:00 PM - Incident# 3217414 (0 lost trips, 5 lost minutes) CHARGEABLE

Train 334

T-348

LRV Cars (223)-206

EB Mariposa Track 2

Operator reporting a prop fault with a speed restriction. Operator cleared the fault but reoccured at 10mph+

10/28/2019 4:40:00 PM - Incident# 3219403 (1 lost trip, 66 lost minutes)

No cab signal car 1147A-1174

Train 352

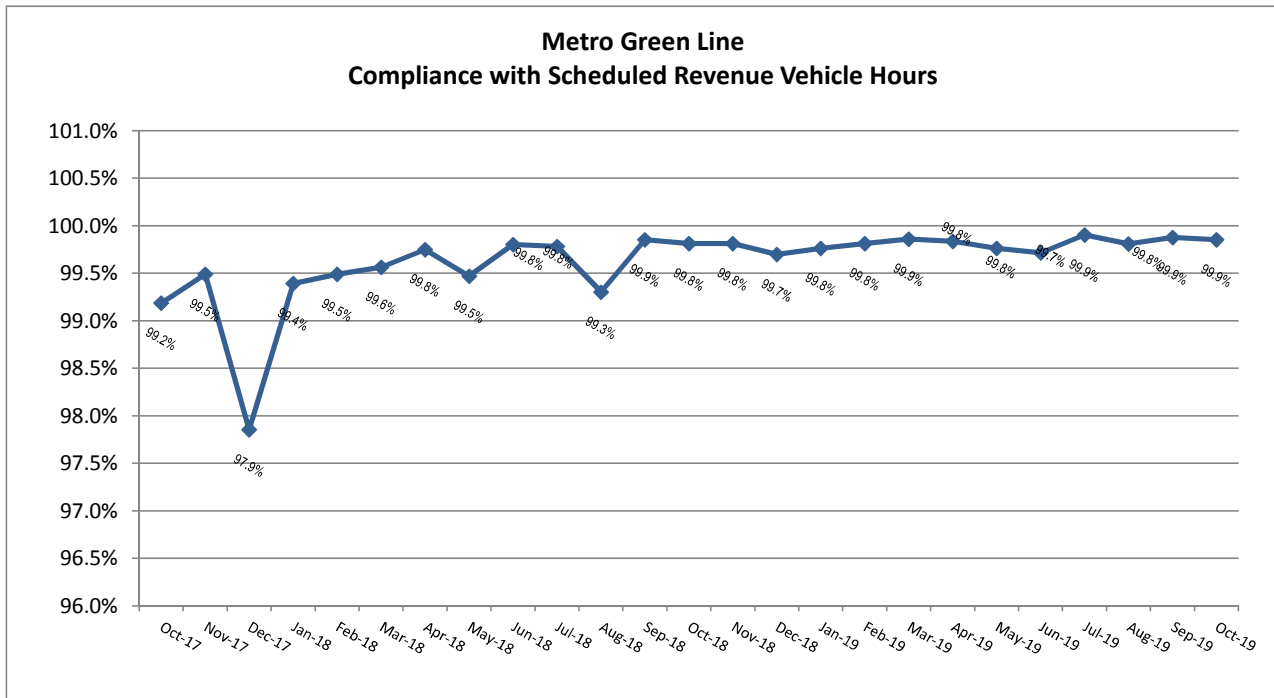
T-294

Track 1

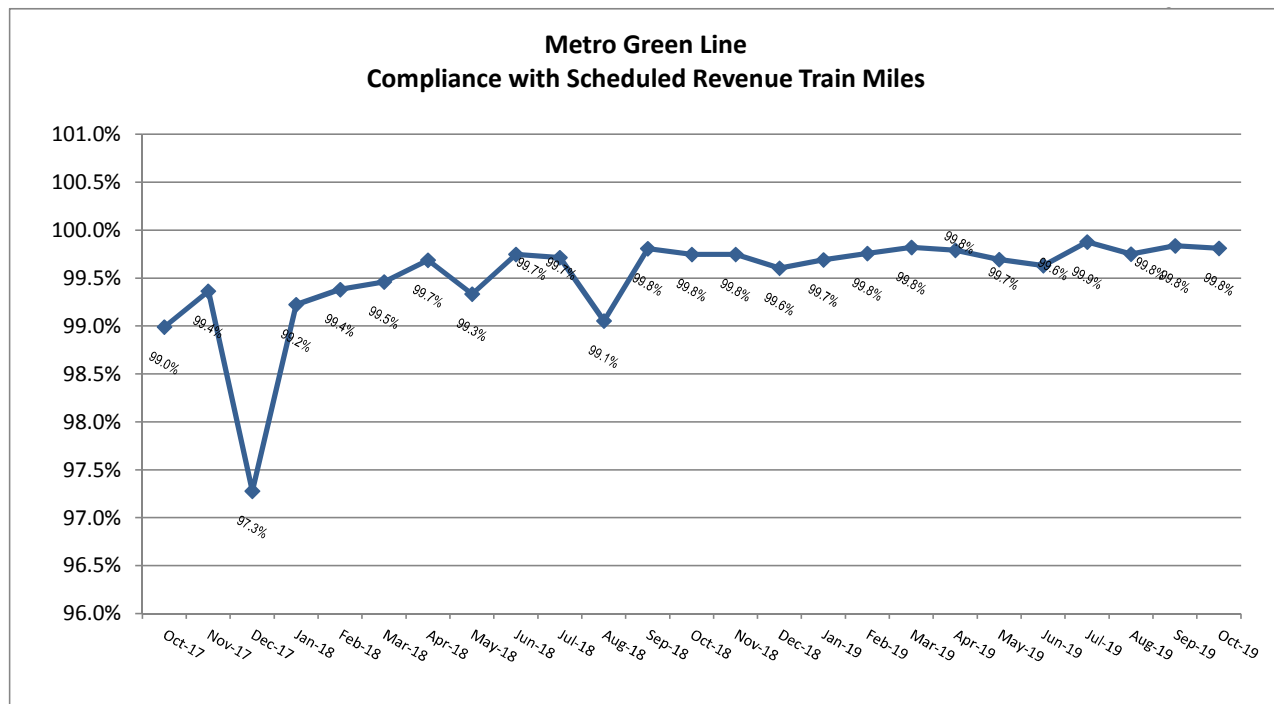
Westbound

Lakewood station.

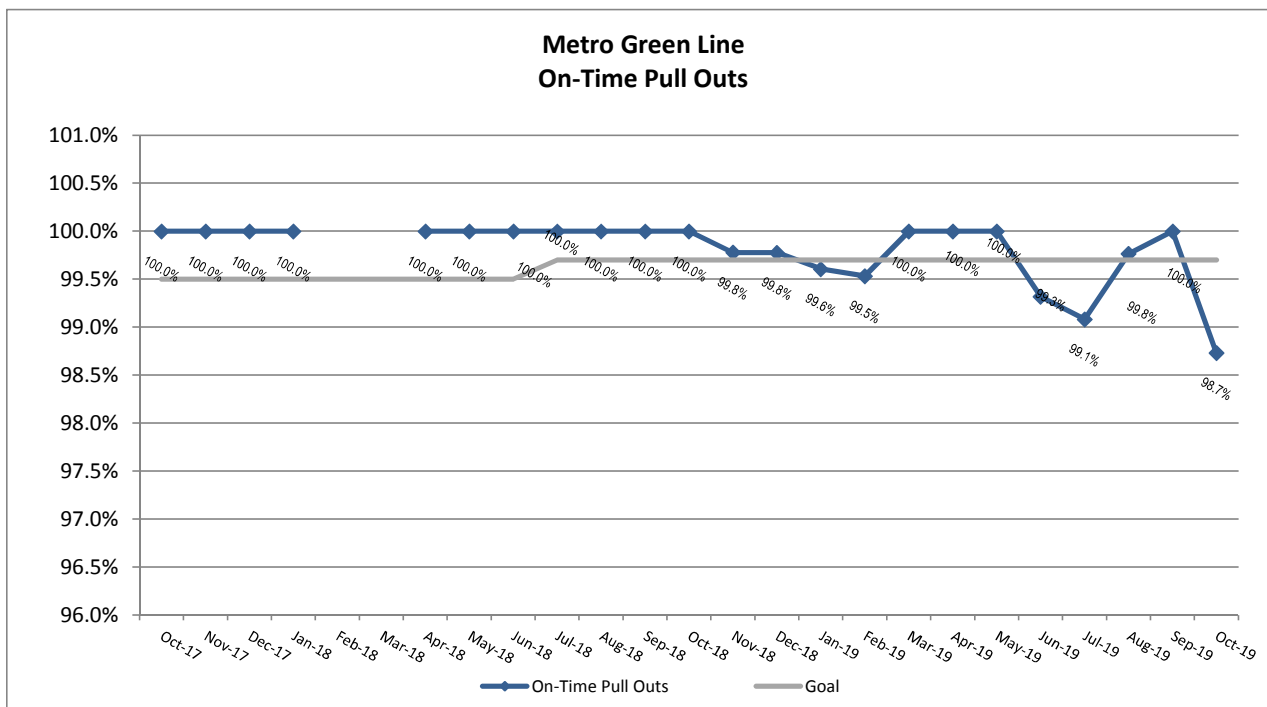
MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS
COMPLIANCE WITH SCHEDULED VEHICLE HOURS
Oct 2019



COMPLIANCE WITH SCHEDULED TRAIN MILES

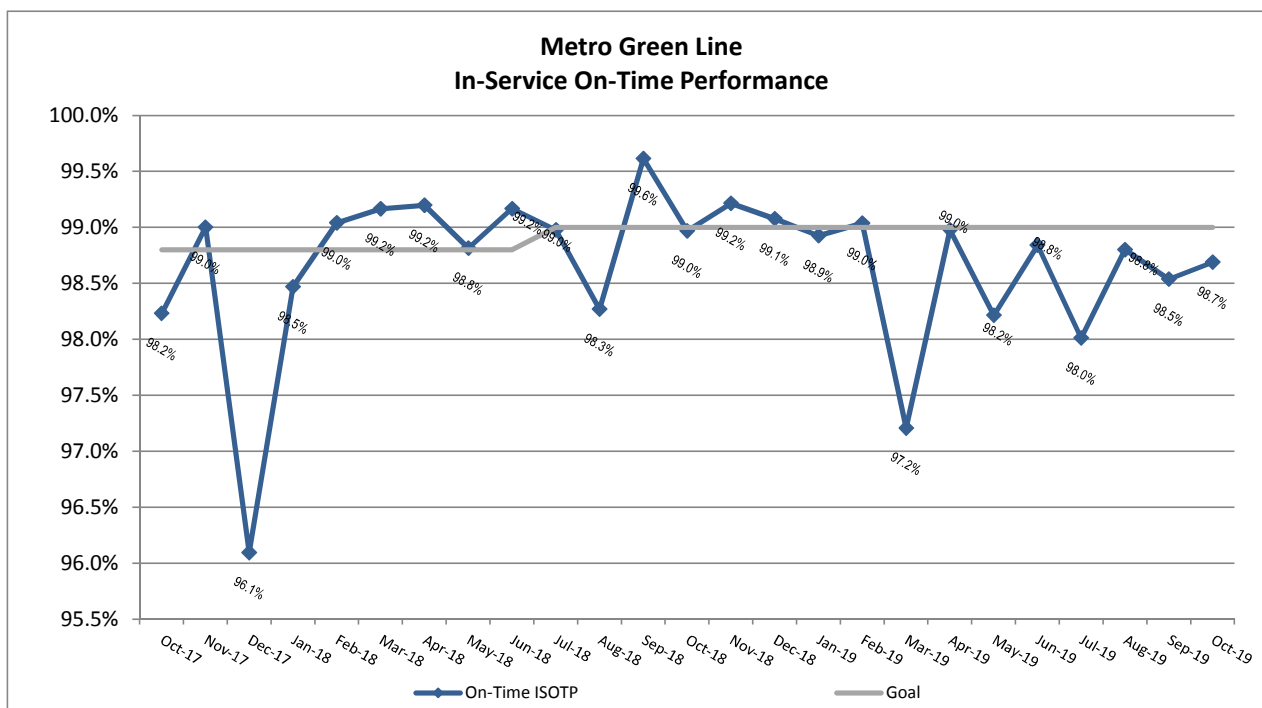


ON-TIME PULL OUTS

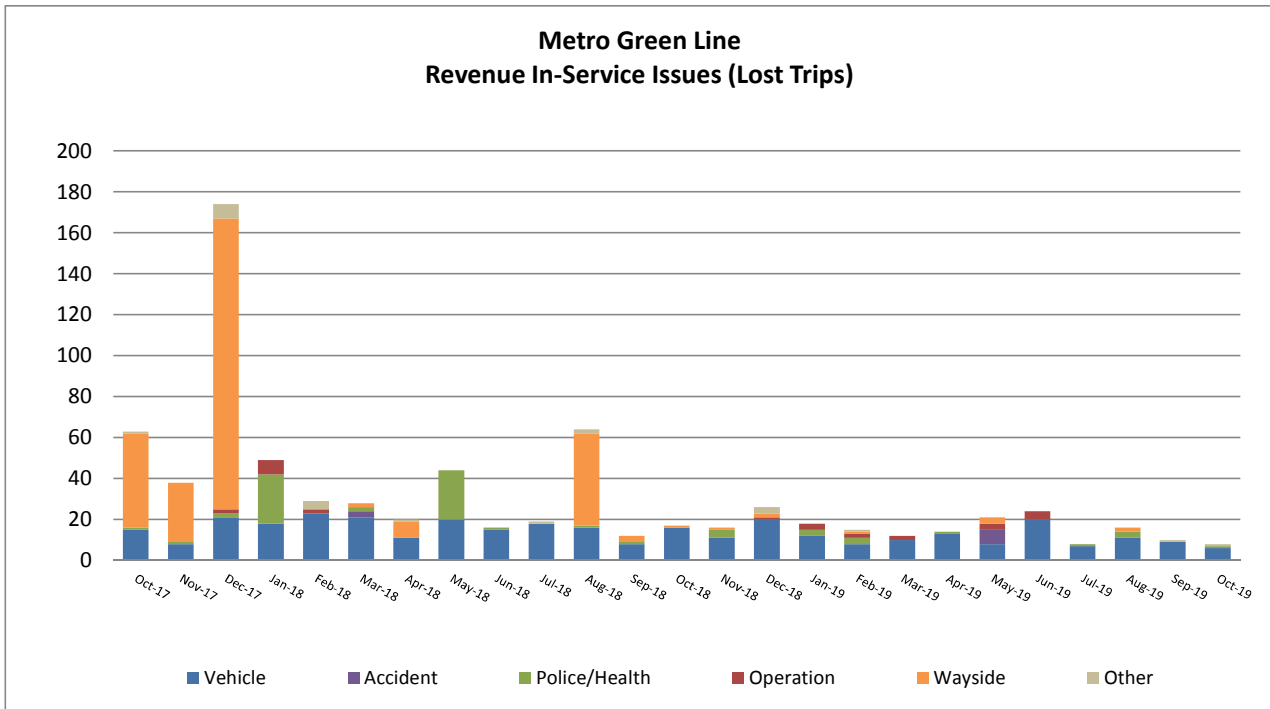


Due to the Crenshaw line link construction in Feb and March 2018, Green Line trains did not pull in or pull out, trains stayed on the tracks.

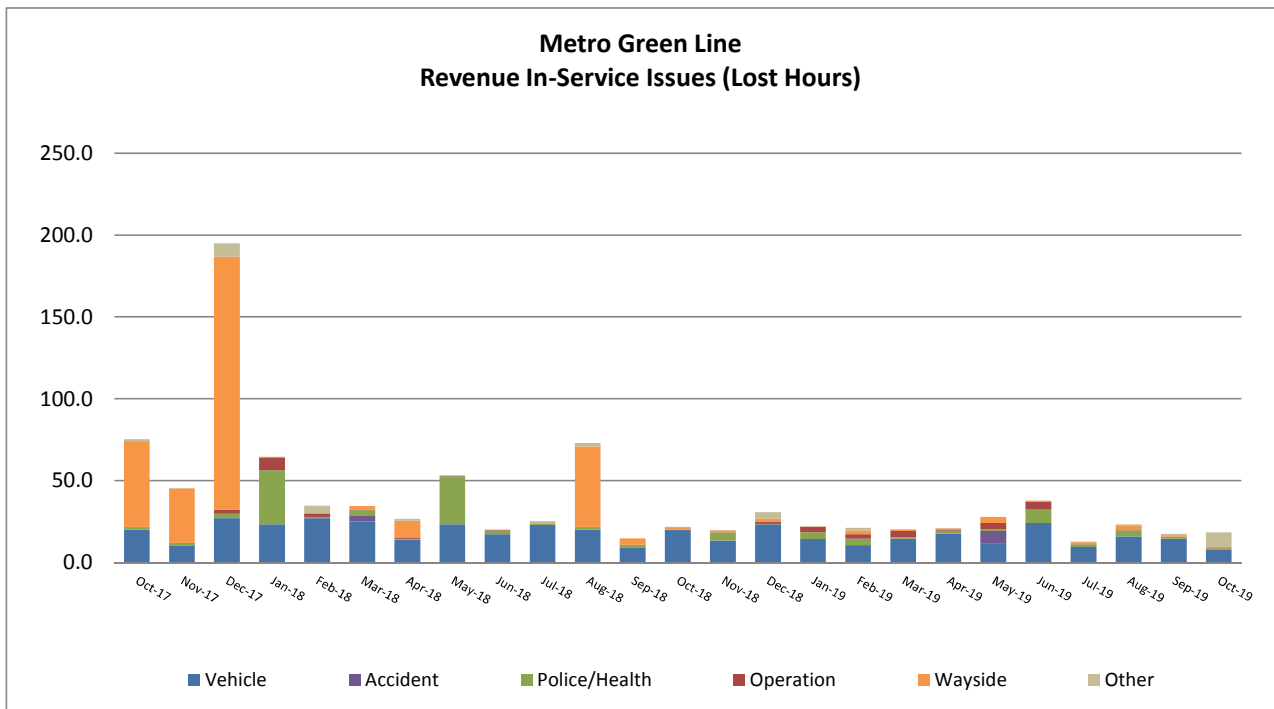
IN-SERVICE ON-TIME PERFORMANCE



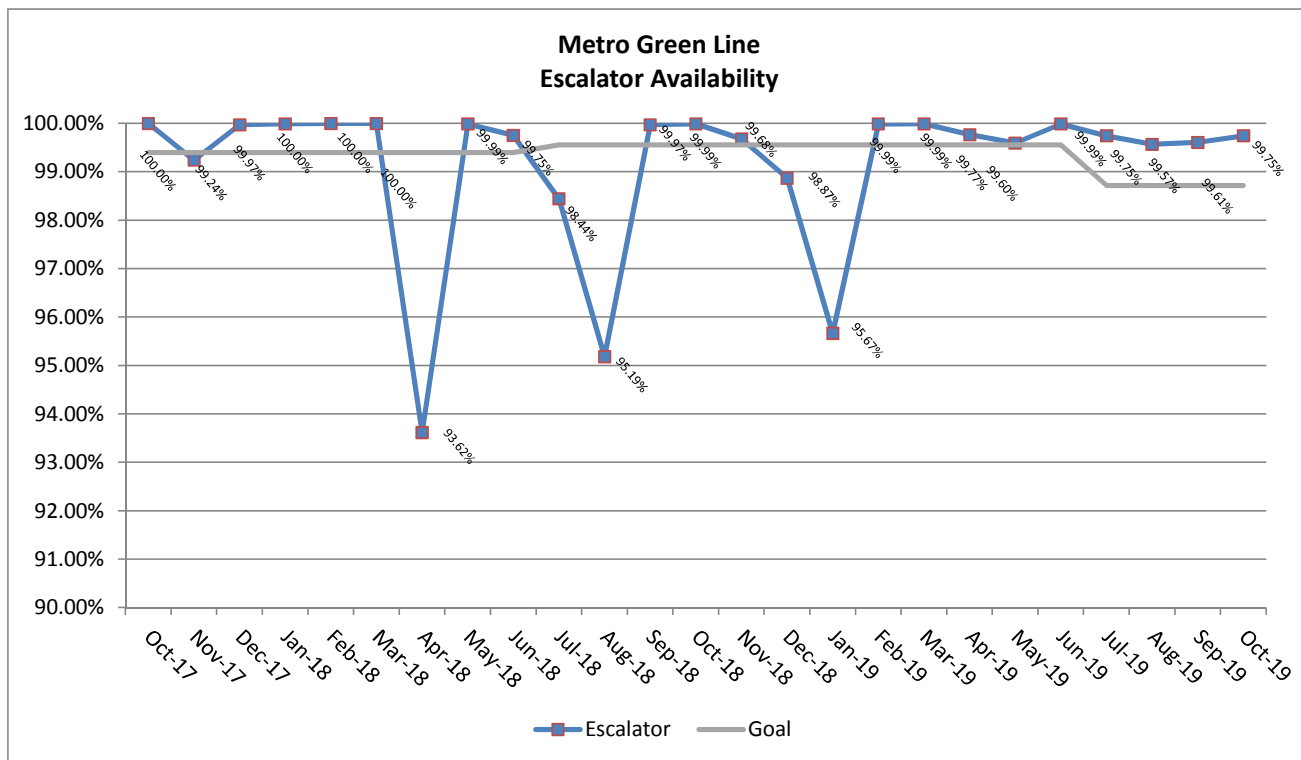
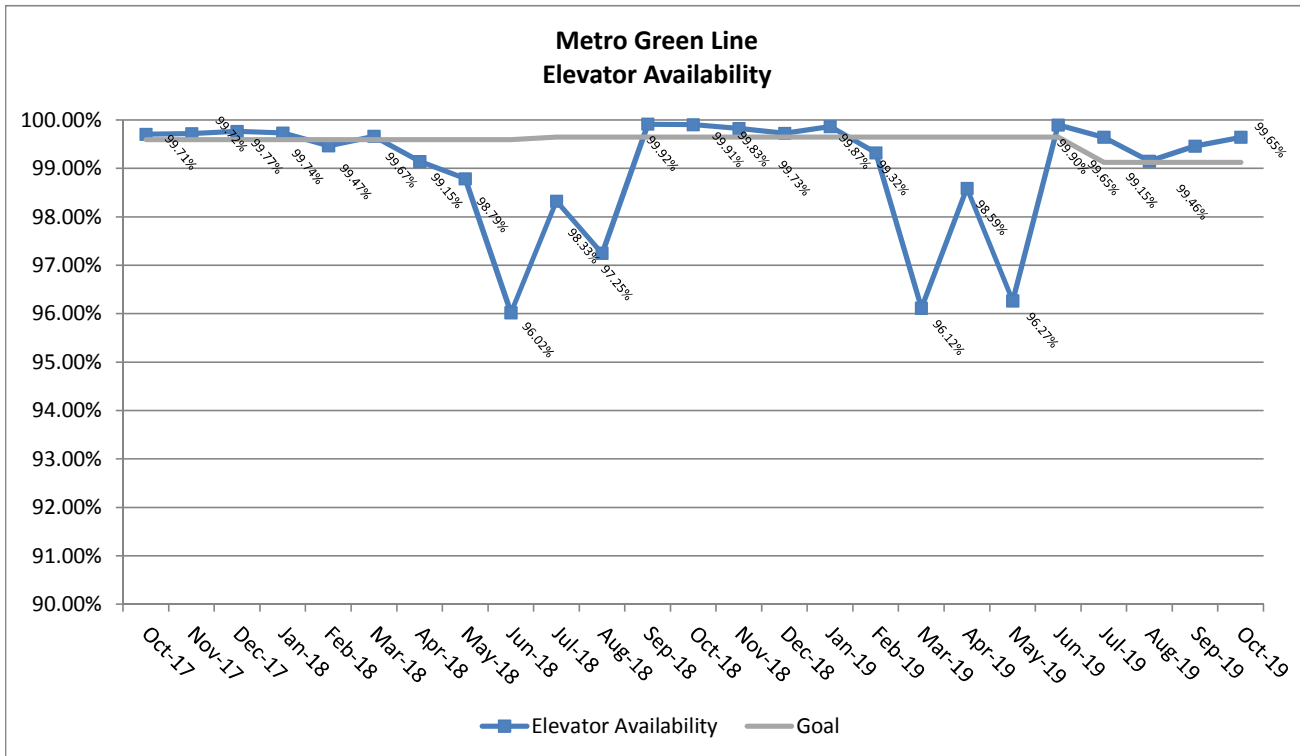
LOST TRIPS



LOST HOURS



VERTICAL TRANSPORTATION AVAILABILITY



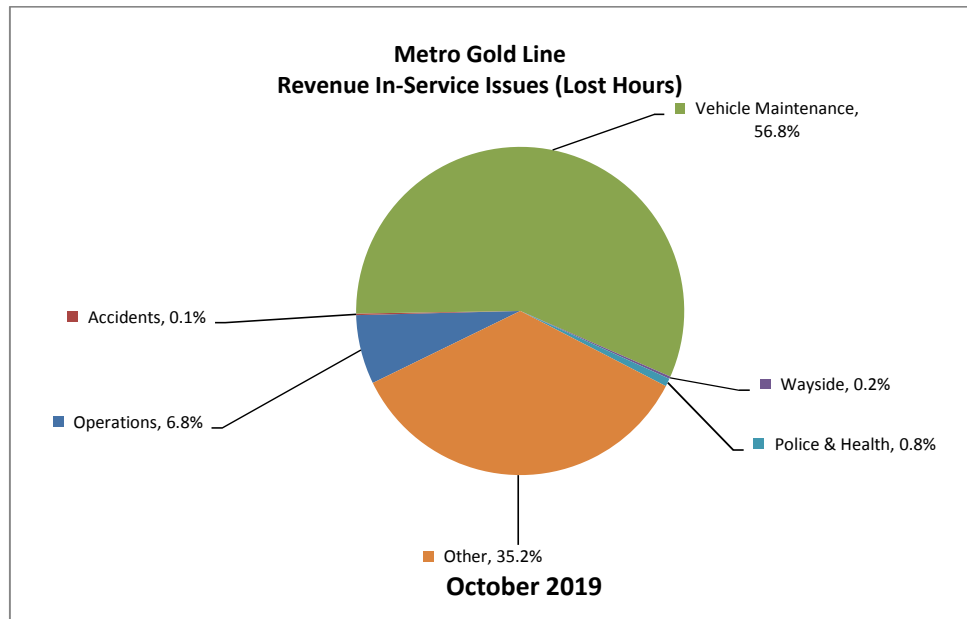
GOLD LINE

Out of a total of 24,833 hours operated, there were approximately 111 total hours of service delays.

October 2019 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	24,722	99.6%
Cancelled + Delayed Hours	111	0.4%
Total Revenue Hours	24,833	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	5	7.6	6.8%
Accidents	1	0.2	0.1%
Vehicle Maintenance	20	63.3	56.8%
Wayside	1	0.3	0.2%
Police & Health	4	0.9	0.8%
Other	16	39.2	35.2%
Total	47	111.4	100.0%

* Data from M3 used to report Service Delays is under review for accuracy
 The number of incidents on the following page may differ from the summary count due to some incidents not properly designated as Cancelled or Delayed



October 2019 Gold Line incidents causing delay were as follows:

Operations Incidents:

10/14/2019 7:07:00 AM - Incident# 3213279 (0 lost trips, 11 lost minutes)

Train delay, due to a 10-100 at Atlantic Station, without contacting ROC.

Train#409

T#178

1110,1124,1158

Track#1,Northbound,Atlantic Station.

10/14/2019 10:00:00 AM - Incident# 3213424 (0 lost trips, 15 lost minutes)

Emergency 10-100 at Union Station.

Train#408

T#103

1163,1191,1181

Track#2,Reverse Running,Soto Station,Northbound.

10/16/2019 6:21:00 AM - Incident# 3214219 (0 lost trips, 5 lost minutes)

Operator for Alpha "Queen" at APU did not sign on at Division 24 for departure on train # 452.

Train # 452

T-452

APU, terminal, track #2.

749 742 744

10/24/2019 11:06:00 PM - Incident# 3218108 (2 lost trips, 420 lost minutes)

T-63 states 10-55 at Allen Station unable to proceed in service northbound

10/27/2019 9:17:00 AM - Incident# 3218896 (0 lost trips, 9 lost minutes)

Train #412 T-340 car#723-730 departed Azusa Citrus 5 minutes late southbound,

Accidents:

10/18/2019 3:04:00 AM - Incident# 3215229 (0 lost trips, 10 lost minutes)

Train 408, T-441 reports a 10-72 at Allen station, operating car 1009

Vehicle Maintenance Incidents:

10/3/2019 4:45:00 PM - Incident# 3208707 (0 lost trips, 4 lost minutes)

IDU on will not go on.

Train 403

T-448

(1185)-1156-1192

Northbound, Track 2 Atlantic station.

10/3/2019 6:10:00 PM - Incident# 3208736 (2 lost trips, 421 lost minutes) CHARGEABLE

Doors bank breaker

Train 421

T-451

(1161A)-1157-1179

Southbound, Track 2 Little Tokyo station.

10/4/2019 5:57:00 PM - Incident# 3209158 (1 lost trip, 208 lost minutes) CHARGEABLE

Car 735 brake faults/smoking.

T-347

Train 406

Cars 704-733-(735)

Pico Aliso Station, Track 1, northbound.

10/4/2019 8:00:00 PM - Incident# 3209175 (1 lost trip, 208 lost minutes)

Major propulsion fault all 3 cars, car 745 has a broken ADA seat

(747 745 737)

Train 454

T-323

Indiana track 1 NB

10/10/2019 7:47:00 AM - Incident# 3211991 (0 lost trips, 10 lost minutes) CHARGEABLE

Train-403 T-189 cars 1166/1172/1182 with air tank cylinder issues causing intermittent loss of cab signals and PA failutr on car 1182.

10/10/2019 8:00:00 PM - Incident# 3212277 (1 lost trip, 211 lost minutes) CHARGEABLE

Car 748 is lower than platform when berthed

(748) 737 743

Train 453

T-203

Memorial Park Track 2 SB

10/11/2019 8:04:00 PM - Incident# 3212702 (1 lost trip, 216 lost minutes) CHARGEABLE

No movement car 1009

Train 424

T-480

1157-1012-(1009)

Sierra Madre Tk 1 N/B

10/14/2019 5:45:00 AM - Incident# 3213245 (1 lost trip, 204 lost minutes) CHARGEABLE

Burning brakes and strong smell reported.

Train#408

T#441

(714,728,703)

Track#2,Duarte Station, Southbound.

10/15/2019 7:30:00 AM - Incident# 3213802 (1 lost trip, 209 lost minutes) CHARGEABLE

Doors did not open automatically.

Train#416

T#77

(713B,731,708)

Track#1,Maravilla Station,Northbound.

10/15/2019 9:29:00 AM - Incident# 3213865 (6 lost trips, 1,207 lost minutes) CHARGEABLE

No movement,multiple faults and restrictions.

Train#452

T#52

(740A),750,746

Track#2,Mile Post 12.5,Southbound.

10/15/2019 12:22:00 PM - Incident# 3213927 (0 lost trips, 20 lost minutes)

Operator could not get out Car wash wash mode.

Train 405

T-122

(1166)-1010-1172

Northbound, TK 1 Atlantic station.

10/16/2019 9:20:00 PM - Incident# 3214721 (0 lost trips, 10 lost minutes)

Debri stuck underneath car 707A between the track brake and wheel

(707) 704

Train 412

T-124

Track 1 NB Maravilla

10/18/2019 5:03:00 PM - Incident# 3215570 (0 lost trips, 8 lost minutes) CHARGEABLE

ATP/TWC failure (No cab signals car 721).

Train 412

T-245

741-722-(721)

Downtown Azusa Tk 2 S/B

10/21/2019 3:49:00 PM - Incident# 3216518 (0 lost trips, 7 lost minutes) CHARGEABLE

Bad coupler on car 1161B. Unable to couple to train 407

Train 407

T411

cars 1057-1008

Track 1

APU station

10/21/2019 4:23:00 PM - Incident# 3216511 (1 lost trip, 198 lost minutes) CHARGEABLE

Friction brake fault car 731B
Train 424
(731B)-730-713
T-63
Track 1
Atlantic station
Northbound

10/21/2019 6:28:00 PM - Incident# 3216548 (1 lost trip, 198 lost minutes) CHARGEABLE

Reports of friction brake fault.

Train 402
T-092
1010B-1160-1009
Track 1
Civic Center

10/23/2019 5:47:00 AM - Incident# 3217145 (0 lost trips, 5 lost minutes) CHARGEABLE

Friction Brakes not releasing, unknown car.

Train # 406
T-129
Lake, Track #2, southbound
(714 728 733)

10/24/2019 2:44:00 PM - Incident# 3217960 (1 lost trip, 216 lost minutes) CHARGEABLE

Train 401
T-063
LRV Cars (714)-701-725
SB Tk2 At SMV

Operator reports of a major HSCB fault on LRV Car 714 with a speed restriction of 35MPH.

10/24/2019 6:14:00 PM - Incident# 3218038 (0 lost trips, 20 lost minutes) CHARGEABLE

Major propulsion fault.

Train 453
T-448
738-737-747
Irwindale Tk 2 S/B

10/30/2019 8:05:00 AM - Incident# 3220157 (1 lost trip, 222 lost minutes) CHARGEABLE

train 407
T-122
LRV Cars (1189A)-1010-1111

Operator reporting of ATP Failure with no movement North from Maravilla Station.

Wayside Incidents:

10/14/2019 9:39:00 AM - Incident# 3213371 (0 lost trips, 15 lost minutes)

B15 @ Soto TPSS tripped and deenergized, Track#2 also ETS at Center TPSS has been activated.

Police & Health Incidents:

10/5/2019 9:14:00 PM - Incident# 3209434 (0 lost trips, 6 lost minutes)

Female Smoking an Illegal Substance at Atlantic Station Platform 1

Train 413

T-540

1006-(1059A)-1008

Atlantic Station, Platform 1, Northbound

10/18/2019 6:32:00 PM - Incident# 3215583 (0 lost trips, 12 lost minutes)

3rd. and Mednick Traffic Accident MTA not involved.

10/21/2019 10:52:00 AM - Incident# 3216289 (0 lost trips, 16 lost minutes)

Female hispanic requesting medical assistance, complaints of a headache and reports a prior condition: Diabetic

Train 405

T-340

Del Mar Station track 2 Southbound

Consist 1005-1125-1104

10/22/2019 9:53:00 PM - Incident# 3217065 (0 lost trips, 20 lost minutes)

Police activity at 1st and Gless due to shooting.

Other Incidents:

10/3/2019 7:41:00 AM - Incident# 3208415 (0 lost trips, 5 lost minutes)

High Speed Circuit Break on car (720B), no movement from APU.

Train # 414

T-338

APU, track #2, southbound

733 731 (720)

10/31/2019 5:38:00 PM - Incident# 3220877 (1 lost trip, 198 lost minutes)

Train 425 reports of Prop Fault with a speed restriction.

T-221

Train 425

Cars: (735)-716-728

SB Tk-2 Monrovia Station.

10/2/2019 6:09:00 PM - Incident# 3208251 (0 lost trips, 9 lost minutes)

Train 427 reports of a possible 10-390.

10/3/2019 11:06:00 PM - Incident# 3208798 (0 lost trips, 20 lost minutes)

T-323 reports train 409 (701-725), Atlantic Station, track 1 reports consist had a strong fowl odor. However, she checked and there was no longer anyone smoking on board. "What do you want me to do"

10/15/2019 12:18:00 PM - Incident# 3213937 (0 lost trips, 8 lost minutes)

Dirty Car (1165B)

Train 403

T-93

(1165B)-1104

Northbound, Track 1 Sierra Madre station.

10/17/2019 3:21:00 PM - Incident# 3215089 (6 lost trips, 1,194 lost minutes)

Slip/Fall

Train 451

T-131

744-(742B)

Southbound, Track 2 Sierra Madre station.

Unable To Duplicate:

10/4/2019 1:35:00 PM - Incident# 3209077 (2 lost trips, 417 lost minutes) CHARGEABLE

Car 1124 doors do not open .

T-92

Train 403

Cars 1010-(1124)-1057

Lake Station, Track 2, southbound.

10/9/2019 11:47:00 AM - Incident# 3211651 (0 lost trips, 12 lost minutes)

Train 451 reporting Major Prop Fault with No Movement.

T-248

Train 451

Cars: 747-(750)-739

SB TK-2 Downtown Azusa

10/9/2019 3:33:00 PM - Incident# 3211779 (0 lost trips, 12 lost minutes)

Train 415 experienced No indications, No movement.

10/9/2019 4:54:00 PM - Incident# 3211819 (0 lost trips, 10 lost minutes)

Train 420 reported no movement, with no indications.

T-106

Train 420

Cars:(1178)-1006-1059

NB Tk-1 Eastern

10/9/2019 10:58:00 PM - Incident# 3211899 (0 lost trips, 20 lost minutes)

Doors do not open on all 3 cars, operating car 1192B

1191 1008 (1192)

Train 418

T-445

APU Track 1 SB

10/19/2019 2:09:00 AM - Incident# 3215649 (0 lost trips, 8 lost minutes)

Train 424 is reporting sluggish propulsion, yellow flag SLC fault and a HSCB trip

Train 424

T-002

(1059A)-1079

South Pasadena Station, Track 1, Northbound

10/23/2019 8:03:00 PM - Incident# 3217539 (0 lost trips, 8 lost minutes)

SLT and SLC Fault with a Speed Restriction

Train 401

T-091

(1179A)-1185

Milepost 15.4, Track 2, Southbound

Reset:

10/4/2019 1:35:00 PM - Incident# 3209077 (2 lost trips, 417 lost minutes) CHARGEABLE

Car 1124 doors do not open .

T-92

Train 403

Cars 1010-(1124)-1057

Lake Station, Track 2, southbound.

10/3/2019 7:41:00 AM - Incident# 3208415 (0 lost trips, 5 lost minutes)

High Speed Circuit Break on car (720B), no movement from APU.

Train # 414

T-338

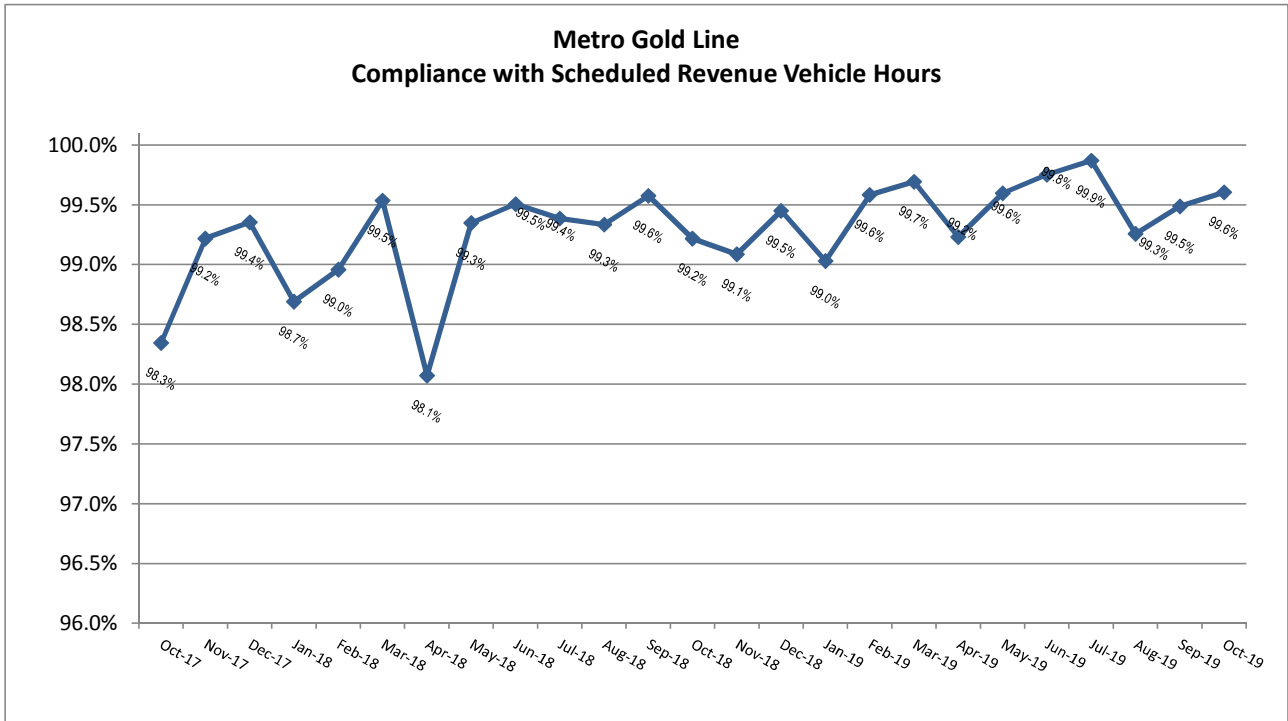
APU, track #2, southbound

733 731 (720)

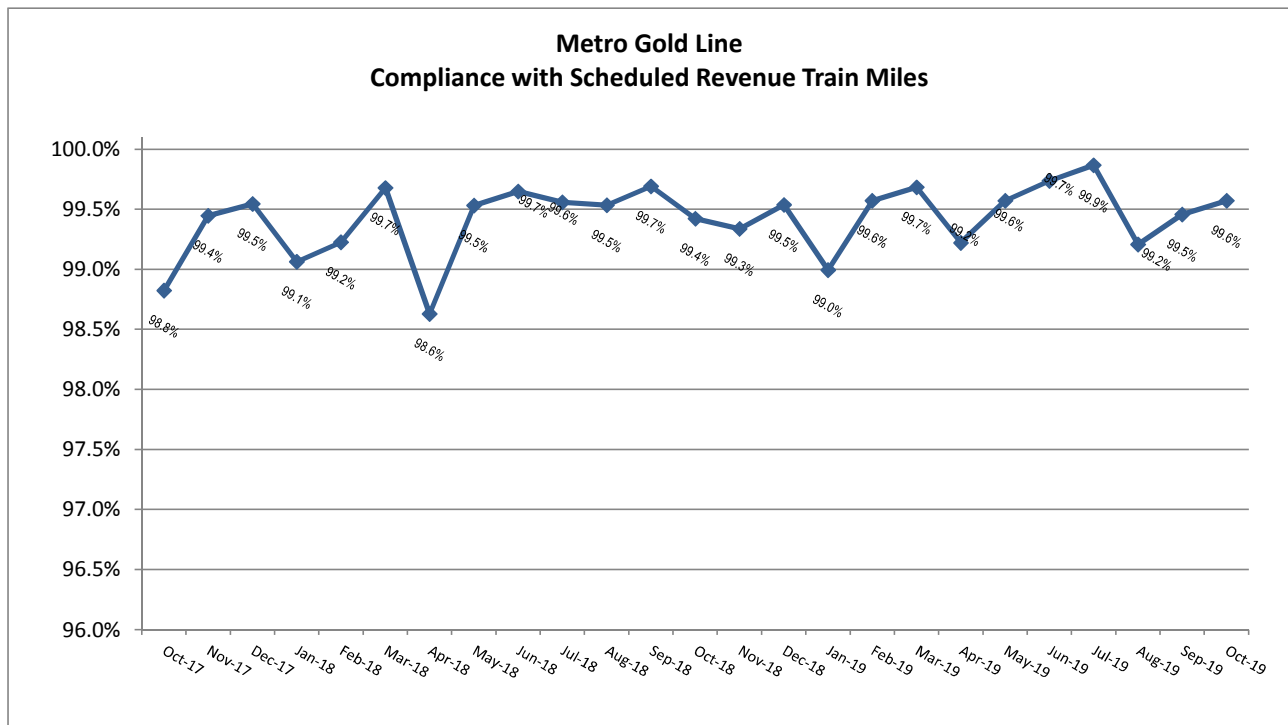
10/10/2019 5:01:00 AM - Incident# 3211942 (0 lost trips, 8 lost minutes)

Train-406 T-103 cars 1010/1179/1181 with HSCB trip pn car 1181.

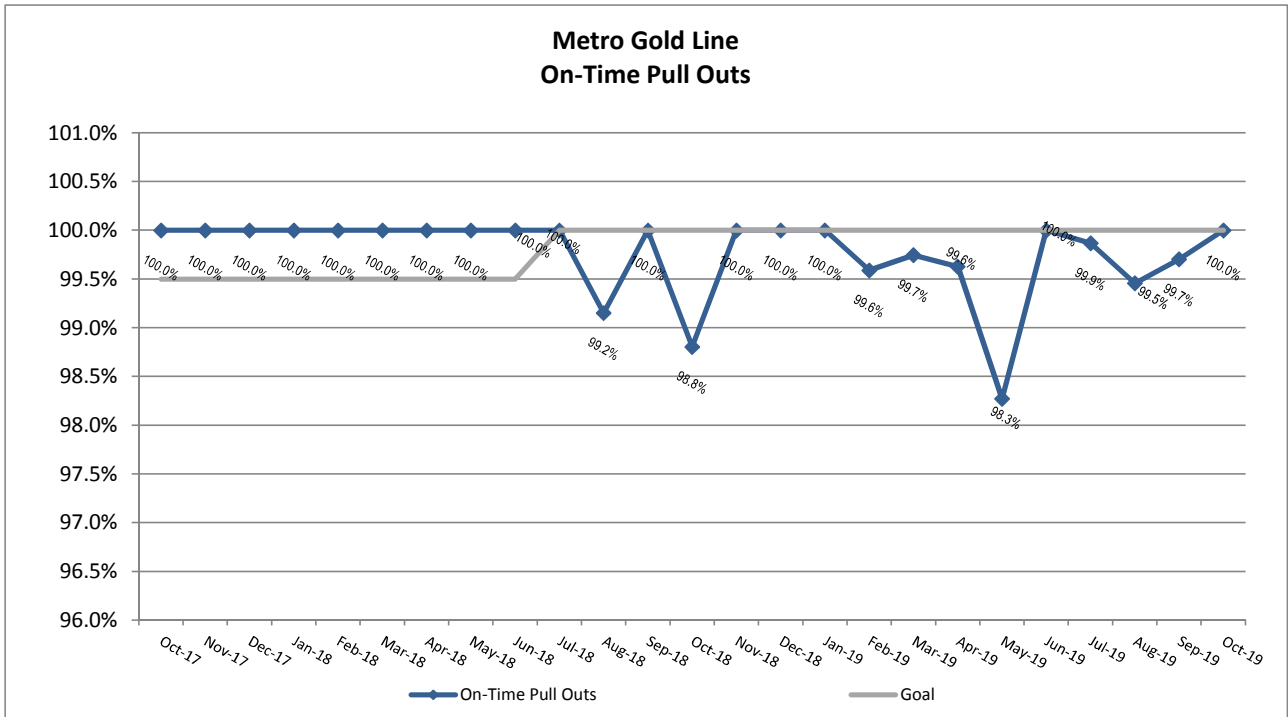
MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS
COMPLIANCE WITH SCHEDULED VEHICLE HOURS
Oct 2019



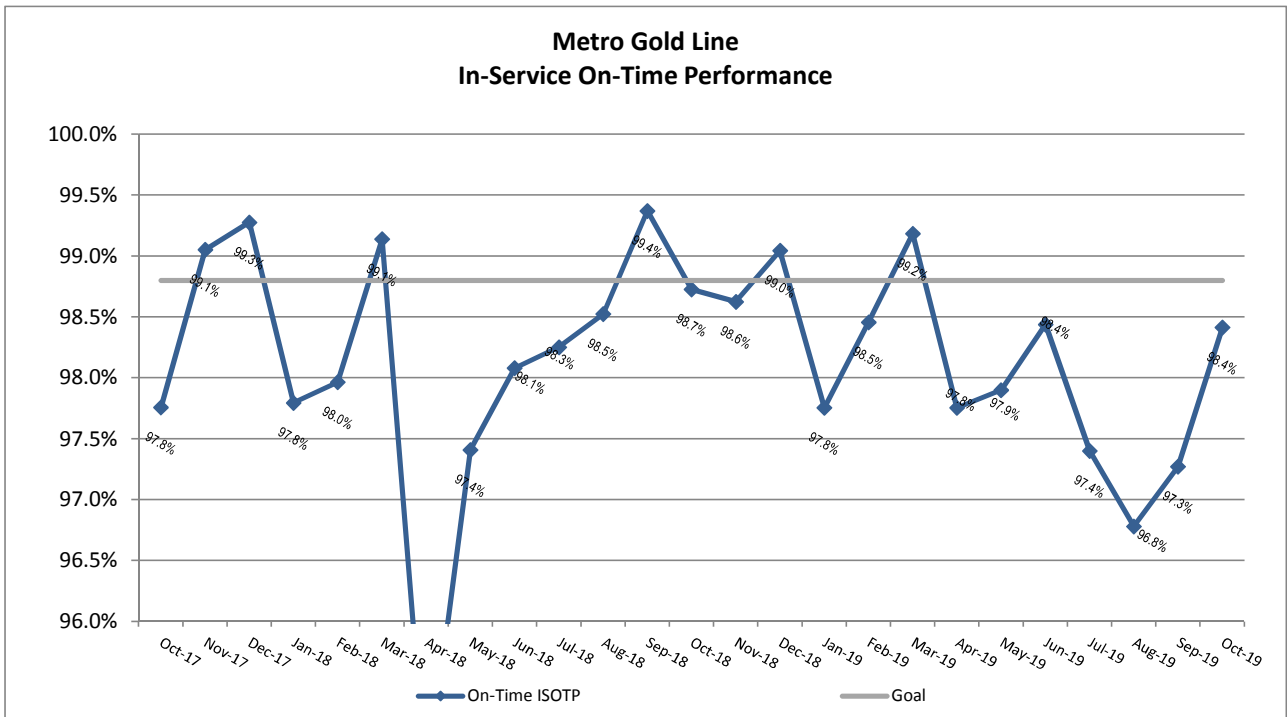
COMPLIANCE WITH SCHEDULED TRAIN MILES



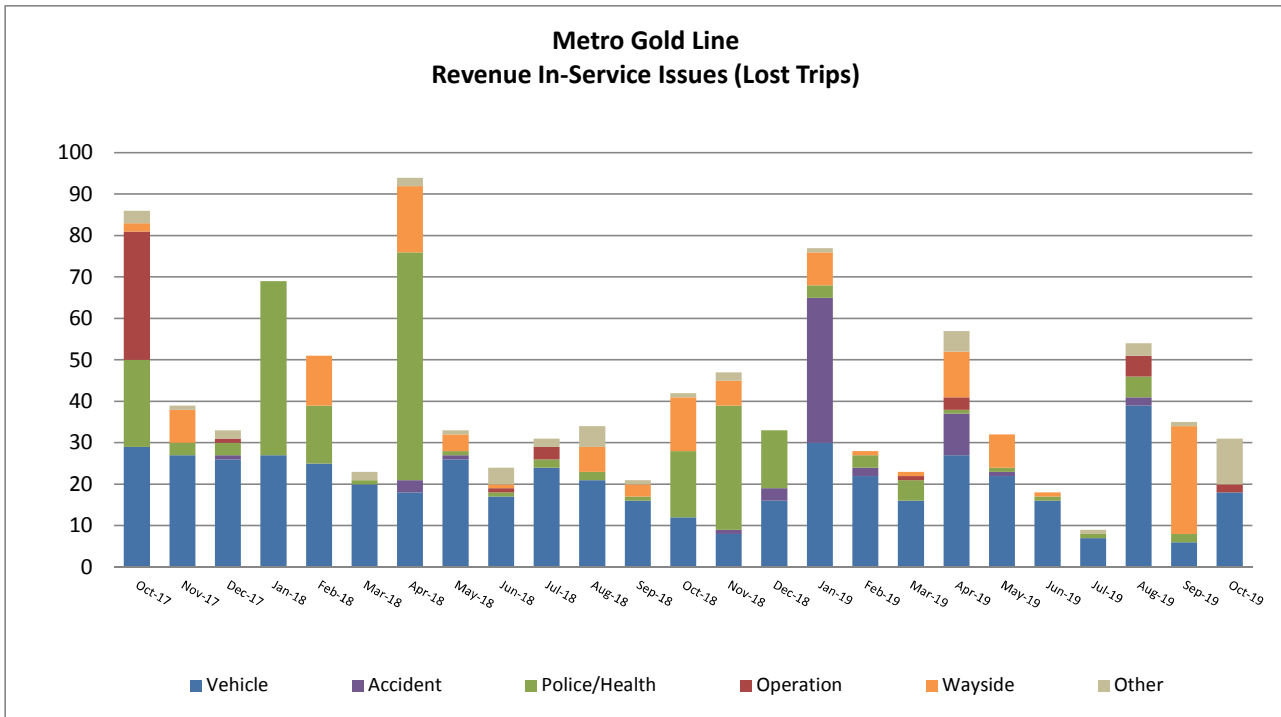
ON-TIME PULL OUTS



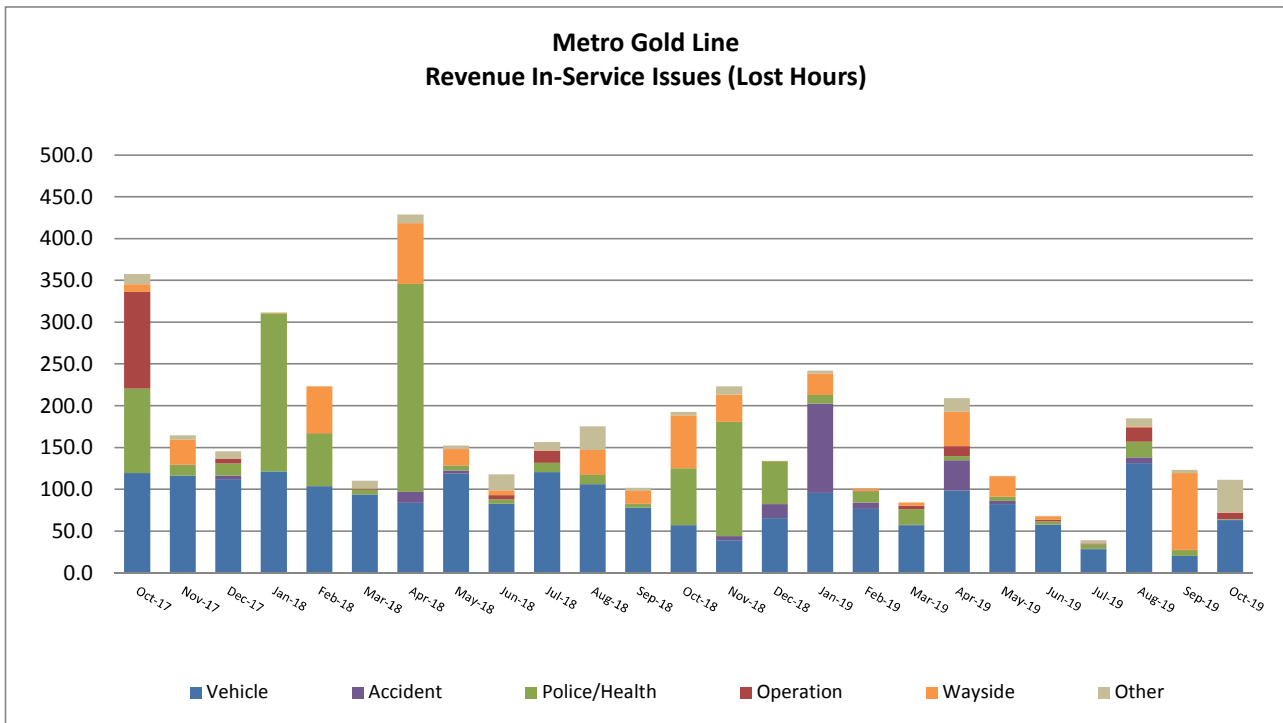
IN-SERVICE ON-TIME PERFORMANCE



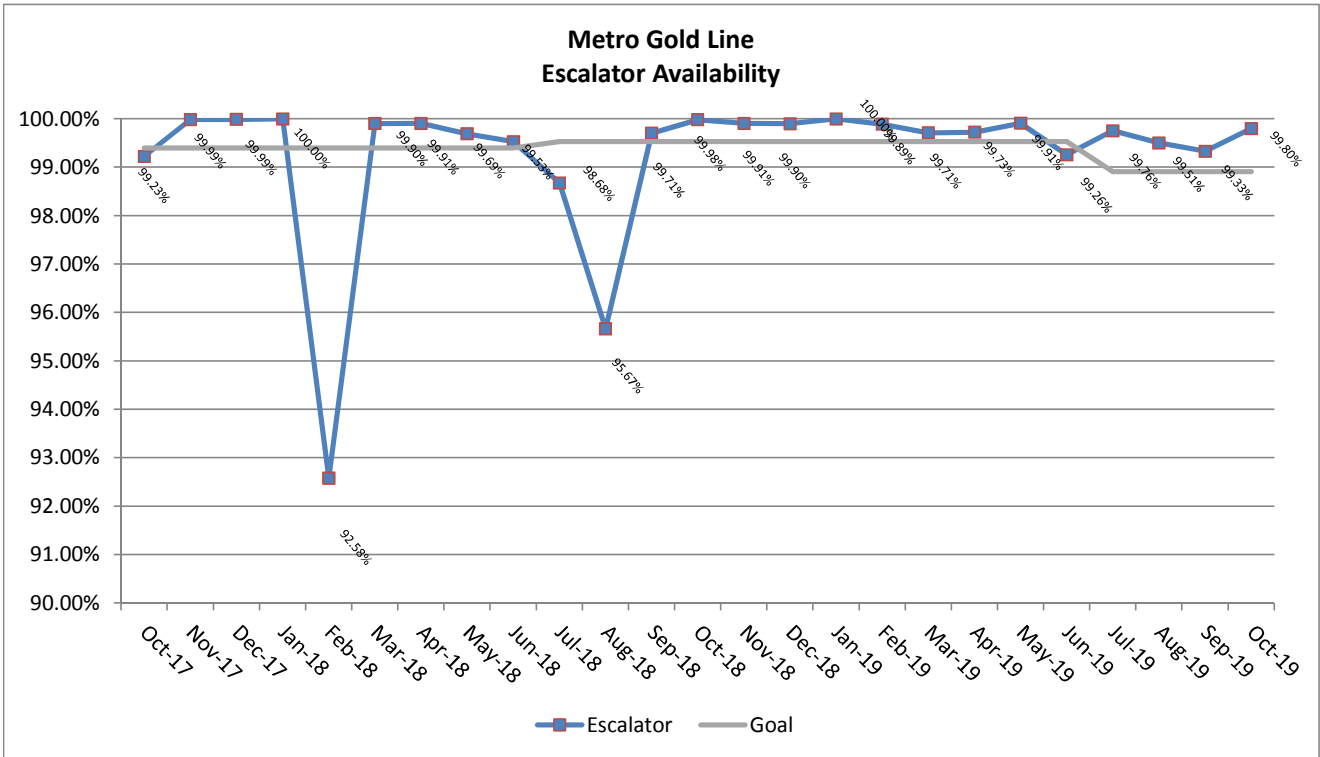
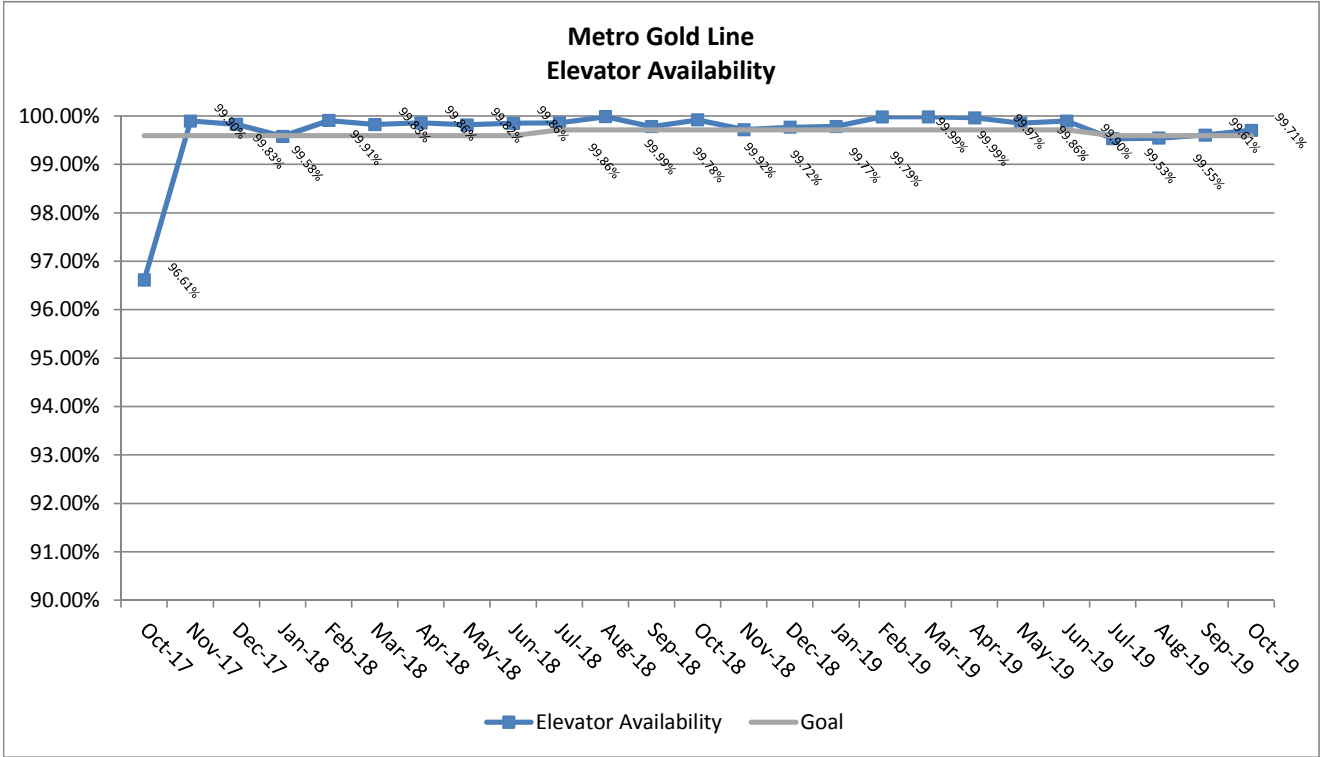
LOST TRIPS



LOST HOURS



VERTICAL TRANSPORTATION AVAILABILITY



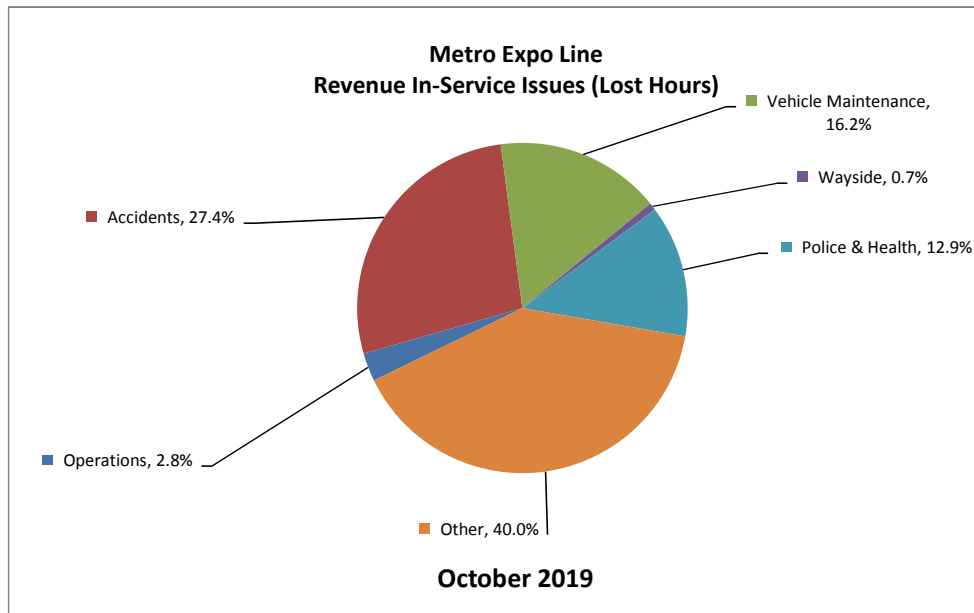
EXPO LINE

Out of a total of 19,139 hours operated, there were approximately 91 total hours of service delays.

October 2019 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	19,048	99.5%
Cancelled + Delayed Hours	91	0.5%
Total Revenue Hours	19,139	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	3	2.5	2.8%
Accidents	2	24.8	27.4%
Vehicle Maintenance	8	14.7	16.2%
Wayside	3	0.7	0.7%
Police & Health	4	11.7	12.9%
Other	9	36.3	40.0%
Total	29	90.7	100.0%

* Data from M3 used to report Service Delays is under review for accuracy
 The number of incidents on the following page may differ from the summary count due to some incidents not properly designated as Cancelled or Delayed



October 2019 Expo Line incidents causing delay were as follows:

Operations Incidents:

10/3/2019 5:01:00 PM - Incident# 3208720 (1 lost trip, 133 lost minutes)

Yard states no equipment for last pull out train 622 due out at 1728 hours.

10/17/2019 4:24:00 AM - Incident# 3214781 (0 lost trips, 14 lost minutes)

T-285 reported that he had no movement while attempting to depart 7th/Metro Center Southbound.

T-285

Train 611

(1026A)-1020-1068

Southbound, Track 1

7th/ Metro Center Station

10/28/2019 4:32:00 AM - Incident# 3219046 (0 lost trips, 5 lost minutes)

Yard Control contacted ROC at 0432 that train 105 was pulling out late due to a replacement in the yard.

Accidents:

10/2/2019 11:59:00 AM - Incident# 3208085 (10 lost trips, 1,348 lost minutes)

Operator reported a 10-72 at Pico Station.

T-329

Train 603

Cars (1048B)-1068

Pico Station, track 2, South

10/3/2019 1:45:00 PM - Incident# 3208632 (1 lost trip, 141 lost minutes)

10-73, Raymond and Expo

Train 610

T-315

(1045A)-1020-1017

Track 4

Southbound

Vehicle Maintenance Incidents:

10/3/2019 7:50:00 AM - Incident# 3208462 (1 lost trip, 143 lost minutes) CHARGEABLE

T-362 reported that his doors were not opening at Farmdale Station Track 4.

T-362

Train 609

(1064B)-1043-1065

Southbound, Track 4

Farmdale Station

10/3/2019 11:51:00 AM - Incident# 3208571 (1 lost trip, 163 lost minutes) CHARGEABLE

Initial call was friction brakes, consist lost air.

Train 609

(240B)-238-241

T-062

Track 4

Southbound

Palms IL (blocking north crossover)

10/8/2019 6:53:00 AM - Incident# 3211086 (0 lost trips, 6 lost minutes) CHARGEABLE

Train-635 T-362 cars 1043-1030-1049 experienced propulsion faults upon relocating for storage lane to signal-8N Bundy IL on car 1043. Car 1043 was uncoupled from consist inside Expo Yard. Thus 1) out-late incurred and 2)

10/11/2019 10:13:00 PM - Incident# 3212722 (0 lost trips, 13 lost minutes) CHARGEABLE

Propulsion fault

Car 1018a

7/Metro

Southbound

Train 622

10/14/2019 6:08:00 AM - Incident# 3213252 (1 lost trip, 133 lost minutes) CHARGEABLE

Operator T-226

Train 603

Cars 1061,(1064),1051

Track 3 Jefferson station

Reported doors would not open on car 1064.

10/22/2019 2:40:00 PM - Incident# 3216928 (1 lost trip, 141 lost minutes) CHARGEABLE

T-238 reports an EMI fault with no movement. Self test check.

EMI Fault

Self-check test

Train 610

T-238

Cars (239)250-247

20th street track 3.

10/29/2019 7:51:00 AM - Incident# 3219583 (2 lost trips, 282 lost minutes) CHARGEABLE

Operator T-227 reporting self applying Friction Brakes, emergency braking on LRV 248A

Train 601

T-227

LRV'S (248A) 249-239

Sepulveda Station track 3 northbound.

10/31/2019 2:38:00 PM - Incident# 3220892 (0 lost trips, 5 lost minutes)

Operator reports no movement
Train-604
T-238
Cars (1065),1025,1039
Downtown Santa Monica, Track 4, NB

Wayside Incidents:

10/3/2019 4:04:00 AM - Incident# 3208343 (0 lost trips, 10 lost minutes)
PICO TPSS- Feeder Breaker B03 Open Position.

10/14/2019 12:37:00 PM - Incident# 3213494 (0 lost trips, 20 lost minutes)
ARINC indicates an ETS Trip at Clarrington and National TPSS's.

10/19/2019 3:57:00 PM - Incident# 3215794 (0 lost trips, 10 lost minutes)
Traction Power personnel was troubleshooting at Clarrington TPSS that causes deenergized tracks and breakers B12 and B13 to open at Overland TPSS.

Police & Health Incidents:

10/1/2019 2:16:00 PM - Incident# 3207751 (4 lost trips, 539 lost minutes)
Altercations aboard trains.
T-29
Train 608
Cars (1026)-1053-1070
Palms station track 3

10/4/2019 3:23:00 PM - Incident# 3209117 (1 lost trip, 143 lost minutes)
Operator reported a traffic accident at Exposition and Gramercy. A car went through the gate and on to the Right Of Way.

10/20/2019 6:24:00 PM - Incident# 3216041 (0 lost trips, 10 lost minutes)
Train 605
T-375
Track #4 Southbound
Bundy Station
1040-1062-1070
Trespasser on the ROW at Bundy Station.

10/27/2019 12:00:00 PM - Incident# 3218910 (0 lost trips, 12 lost minutes)
LAPD notified Expo control that there was a dog on the ROW.

Other Incidents:

10/23/2019 2:19:00 AM - Incident# 3217087 (0 lost trips, lost minutes)
Train vs auto, 0 lost minutes.

10/4/2019 4:03:00 AM - Incident# 3208828 (0 lost trips, 14 lost minutes)
B-03 at Pico TPSS was open with control tag placed by FM-182. Train 601 had no movement out of 7th and

10/15/2019 7:20:00 AM - Incident# 3213798 (0 lost trips, 5 lost minutes)

Feces on car 1060B
Train 603
(1060B)-1050-1038
7th/Metro, track 1, southbound

10/16/2019 6:44:00 AM - Incident# 3214234 (10 lost trips, 1,338 lost minutes)

Patron laying on floor on car (1023B).
Jefferson Station, Track #3, Northbound.
Train #602.
T-089.
LRV- 1047, 1034, (1023B).

10/23/2019 1:05:00 PM - Incident# 3217370 (0 lost trips, 10 lost minutes)

Slip and Fall
23rd St station
T-473 TK 3 NB
(1024A)-1028-1067

10/27/2019 11:37:00 AM - Incident# 3218902 (0 lost trips, 12 lost minutes)

Black Male wearing all black pulled emergency handle on car 1043B.
Train 602
T-497
1070-1019-(1043)
Palms IL, Track 3, Northbound

Unable To Duplicate:

10/15/2019 5:23:00 AM - Incident# 3213753 (4 lost trips, 532 lost minutes)

Doors will not open (250A)
Train 614
T-47
(250A)-302-239
Bundy station, track 1, Northbound

10/31/2019 4:26:00 PM - Incident# 3220887 (1 lost trip, 136 lost minutes)

Operator reports a speed restriction.
Train-606
T-368
Cars (1065),1025,1039
La Cienega, Track 4, SB

Reset:

10/3/2019 4:11:00 AM - Incident# 3208336 (1 lost trip, 133 lost minutes)

T-100 reported a friction brake fault in intermediate car (301).

T-100

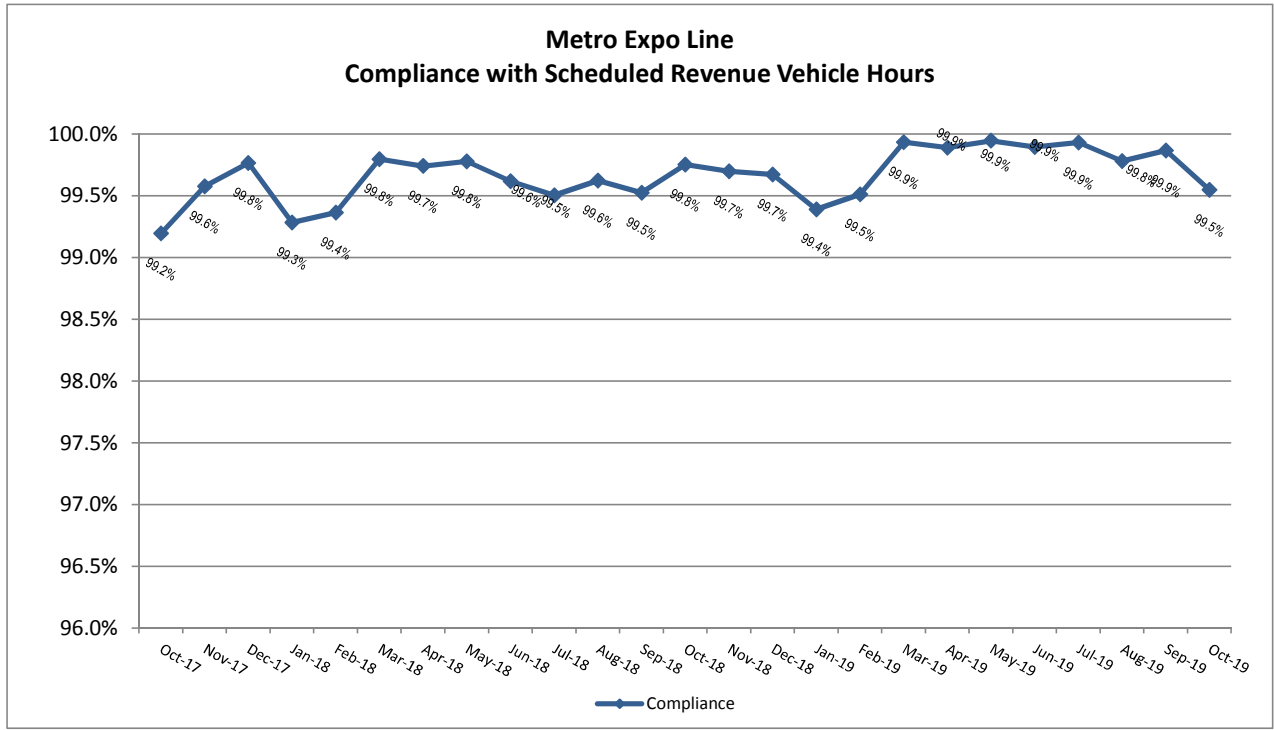
Train 613

241-(301)-238

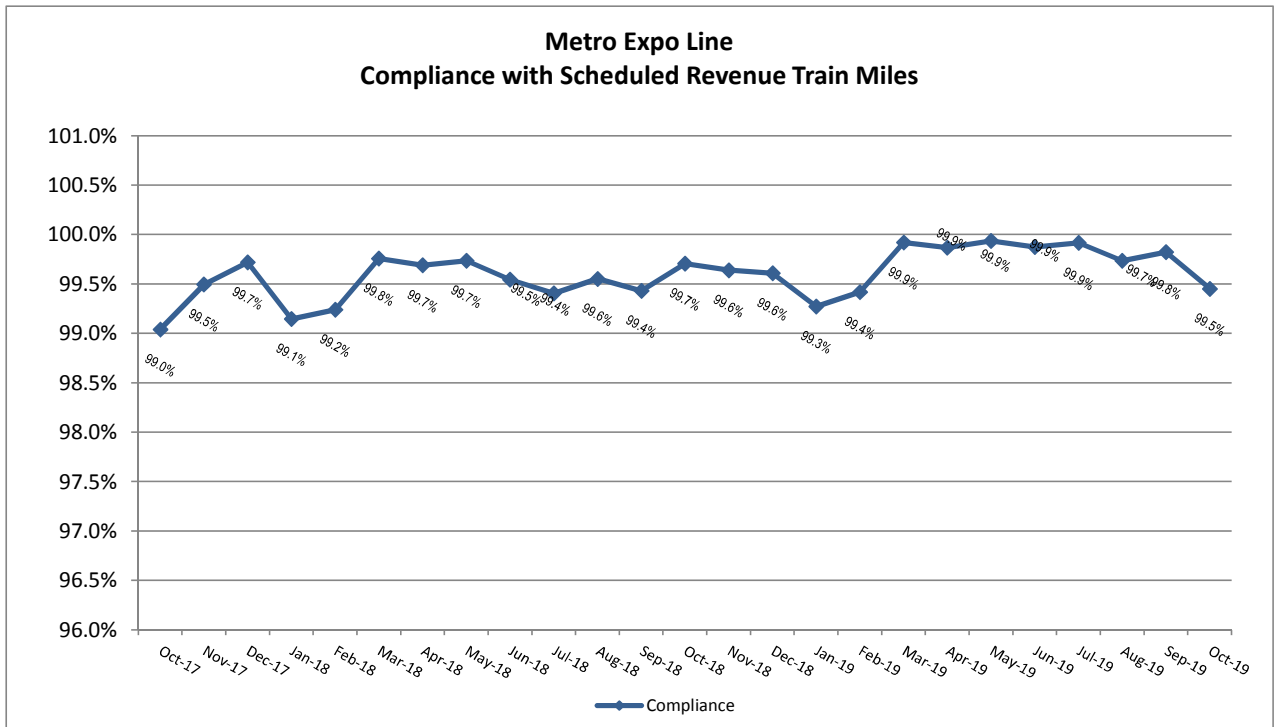
Northbound, Track 3

Bundy Station

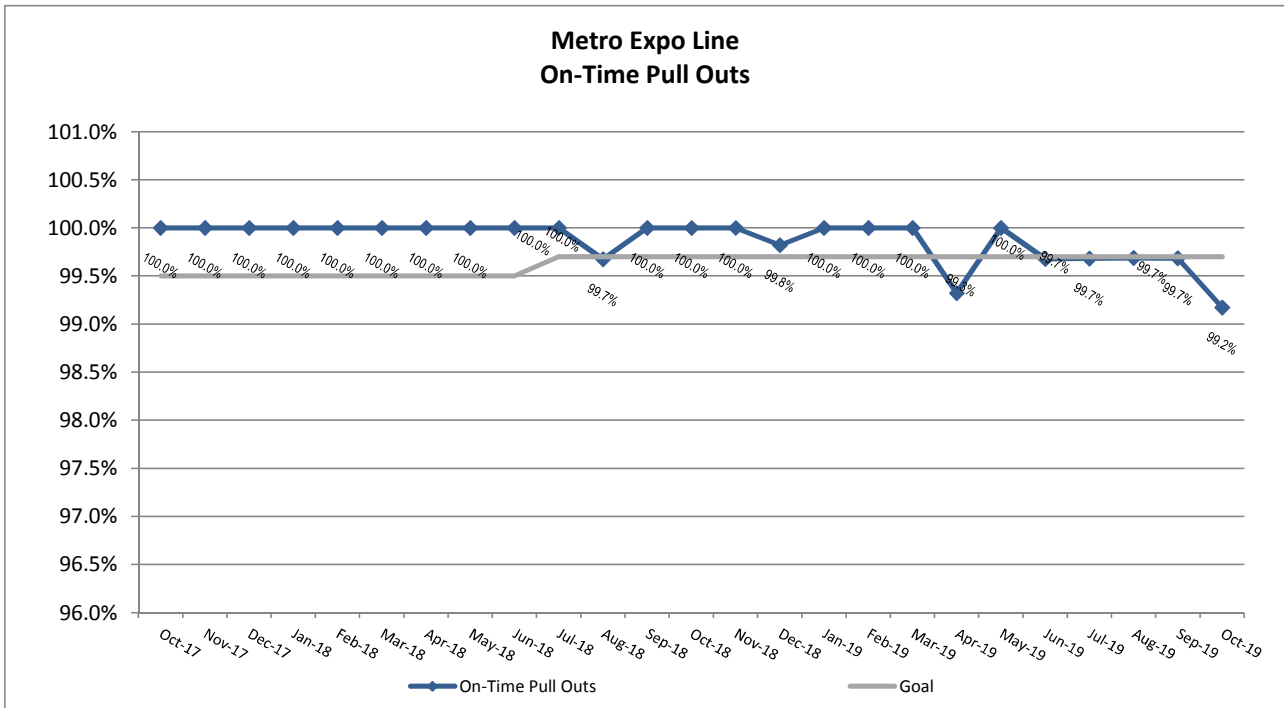
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Oct 2019



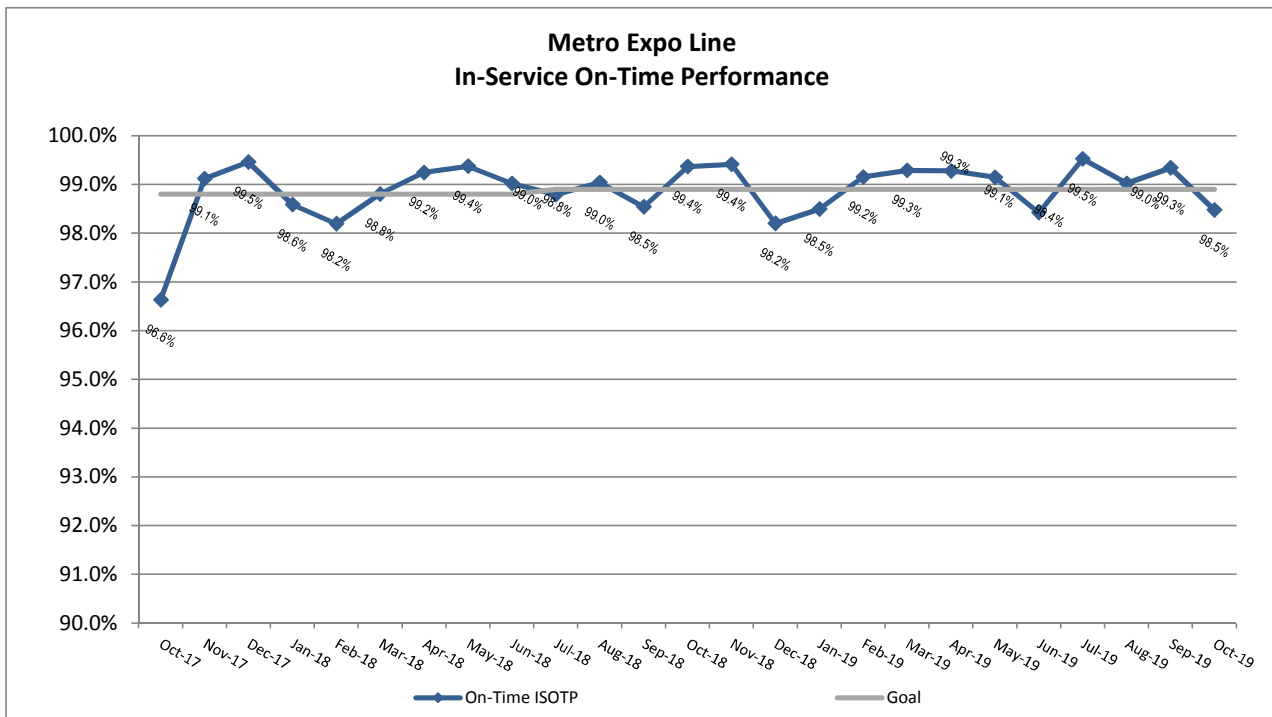
COMPLIANCE WITH SCHEDULED TRAIN MILES



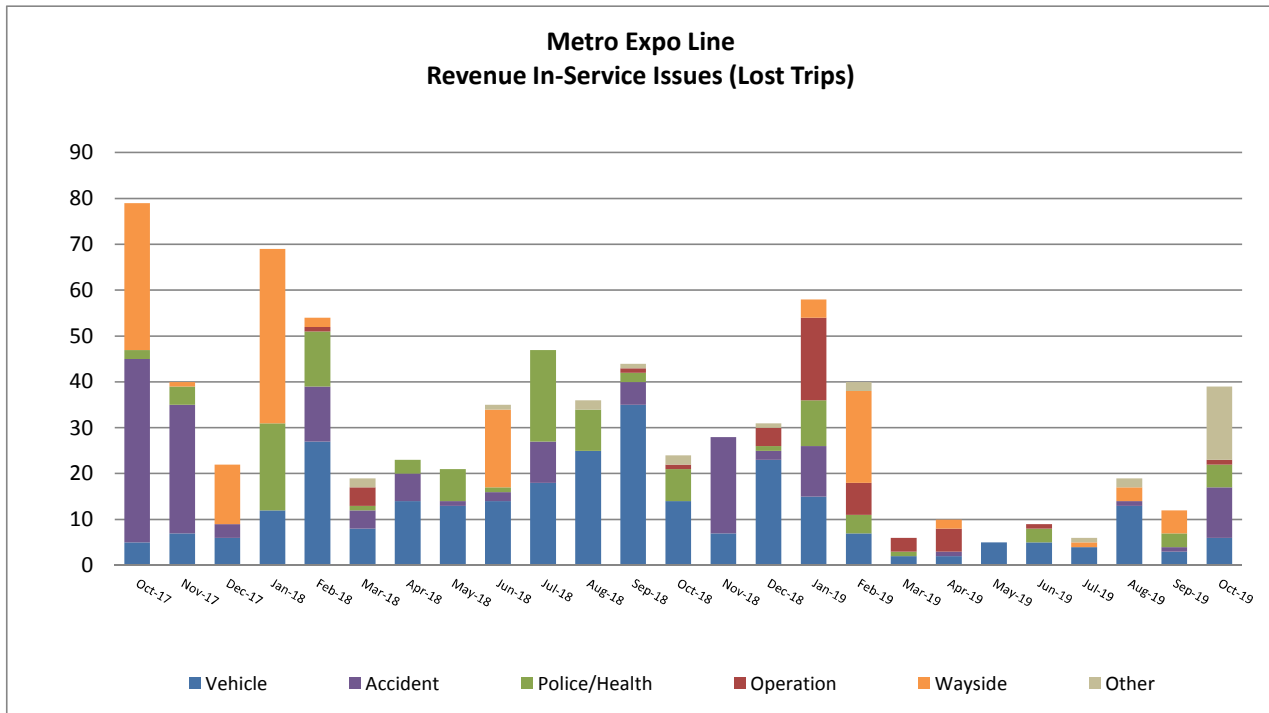
ON-TIME PULL OUTS



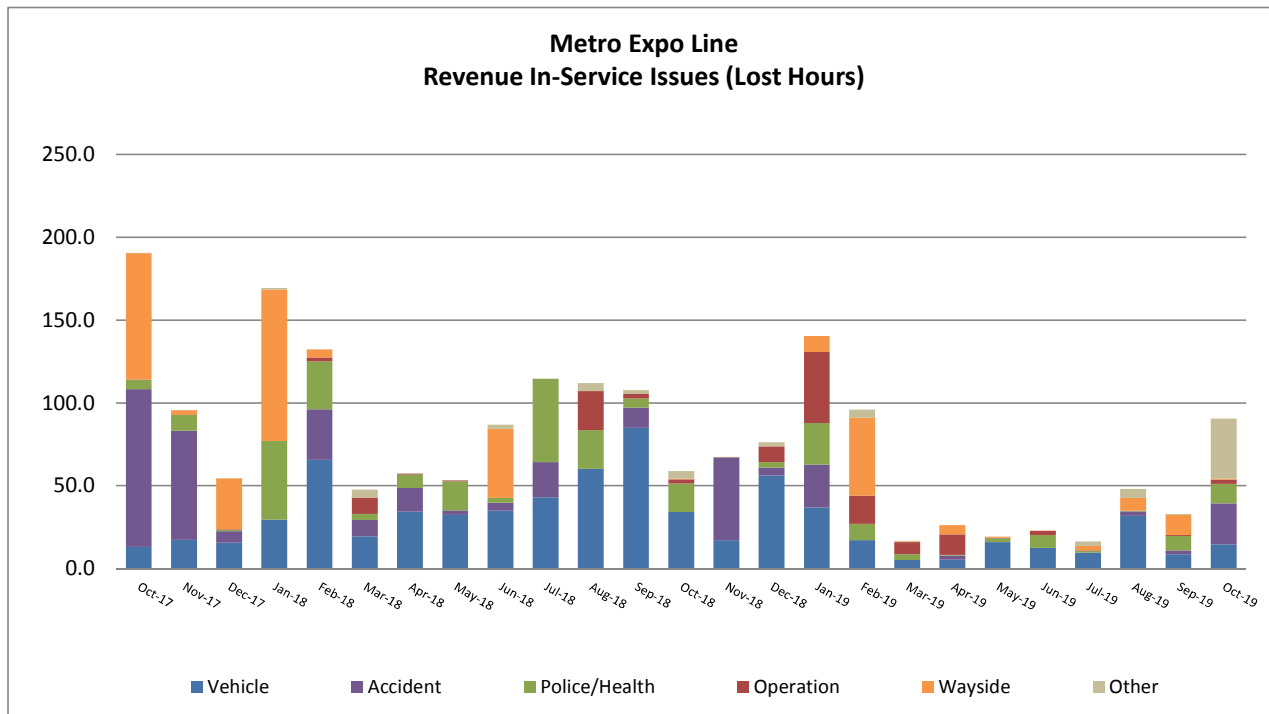
IN-SERVICE ON-TIME PERFORMANCE



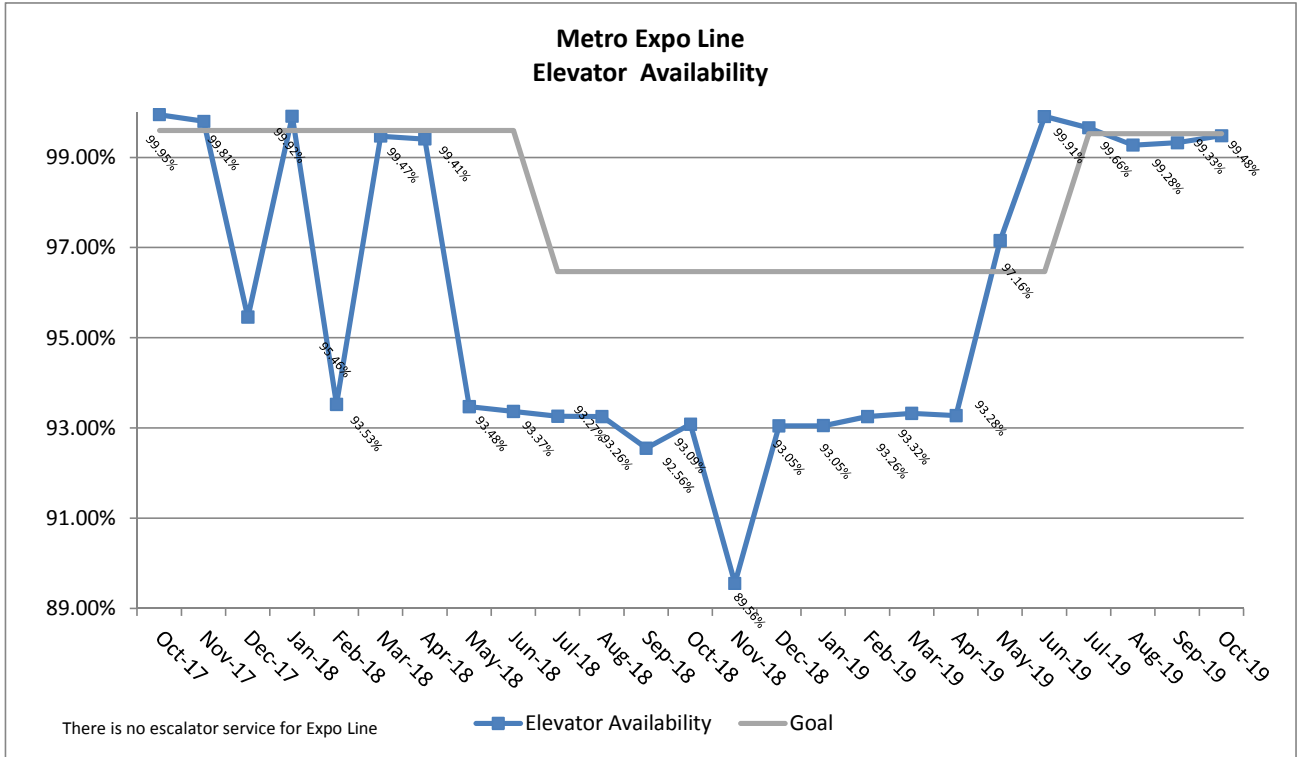
LOST TRIPS



LOST HOURS



VERTICAL TRANSPORTATION AVAILABILITY



Note: An elevator at Culver City Station has been out of service indefinitely.