



Rail Fleet Services Monthly Report April 2015



Metro

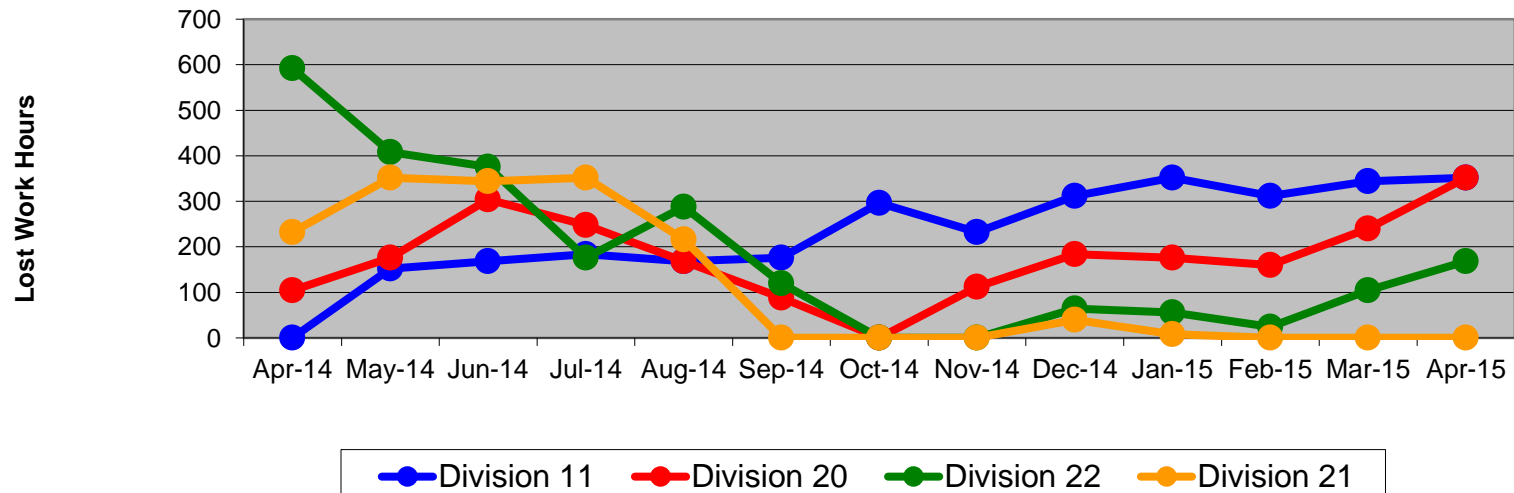
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Industrial Injuries – Lost Work Hours April 2014-2015

	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	13-Month Period
Division 11	0	152	168	184	168	176	296	232	312	352	312	344	352	3,048
Division 20	104	176	304	248	168	88	0	112	184	176	160	240	352	2,312
Division 22	592	408	376	176	288	120	0	0	64	56	24	104	168	2,376
Division 21	232	352	344	352	216	0	0	0	40	8	0	0	0	1,544
Totals	928	1,088	1,192	960	840	384	296	344	600	592	496	688	872	9,280

Industrial Injuries (lost work hours)



Rail Vehicle Accidents & Major Incidents

April 2014-2015

Repair Costs	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	13-Month Period
Blue/Expo Line	\$72,961	\$9,463	\$9,964	\$1,528	\$207	\$42,690	\$12,945	\$5,762	\$3,463	\$9,301	\$17,834	\$17,322	\$12,056	\$215,496
Red/Purple Line	\$0	\$0	\$0	\$0	\$0	\$0	\$4,194	\$0	\$0	\$0	\$0	\$0	\$0	\$4,194
Green Line	\$0	\$0	\$0	\$0	\$0	\$0	\$267	\$0	\$0	\$0	\$0	\$0	\$0	\$267
Gold Line	\$0	\$0	\$5,860	\$50,059	\$1,669	\$0	\$0	\$0	\$5,664	\$0	\$315	\$0	\$0	\$63,567
Totals	\$72,961	\$9,463	\$15,824	\$51,587	\$1,876	\$42,690	\$17,406	\$5,762	\$9,127	\$9,301	\$18,149	\$17,322	\$12,056	\$283,524

Rail Vehicle Accident Costs - April 2015				
Date	Incident #	Problem Code	Incident Description	Repair Cost
Metro Blue/Expo Line				
4/9/15	2582044	Train vs. Pedestrian	A 10-72 was reported. Train 114 at Wilmington Grade crossing, Track 2, Southbound.	\$ 431
4/13/15	2583440	Train vs. Vehicle	A 10-73 was reported. Train 118 at Nadeau Grade crossing, Track 1, Northbound.	\$ 11,574
4/16/15	2584825	Train vs. Vehicle	A 10-73 was reported. Train 115 at 18th and Flower, Track 2, Southbound.	\$ 51
4/25/15	2587778	Train vs. Other	A patron was pushed into the rear car of the train as it was departing, San Pedro Station, Train 112 Track 1, Northbound.	\$ -
Total				\$ 12,056
Grand Total				\$ 12,056
(10-71) = Train vs. Object, (10-72) = Train vs. Pedestrian, (10-73) = Train vs. Vehicle (10-74) = Train vs. MTA Vehicle, (10-75) = Derailment				

Note: Repair costs are only the expenses captured during the time period of the report. Actual costs may be significantly higher, if repairs are spread out over several months.

Service Delivery April 2015

April 2015 - Service Delivery

Blue/Expo Line Fleet Size: 92

<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available</u>	<u>% Up (Down)</u>
Weekday:	78	78	100%
Weekend:	60	64	107%
Late Pullouts: 0			
Monthly Mileage:	589,689		

Red/Purple Line Fleet Size: 104

<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available</u>	<u>% Up (Down)</u>
Weekday:	74	76	103%
Weekend:	54	66	122%
Late Pullouts: 0			
Monthly Mileage:	609,880		

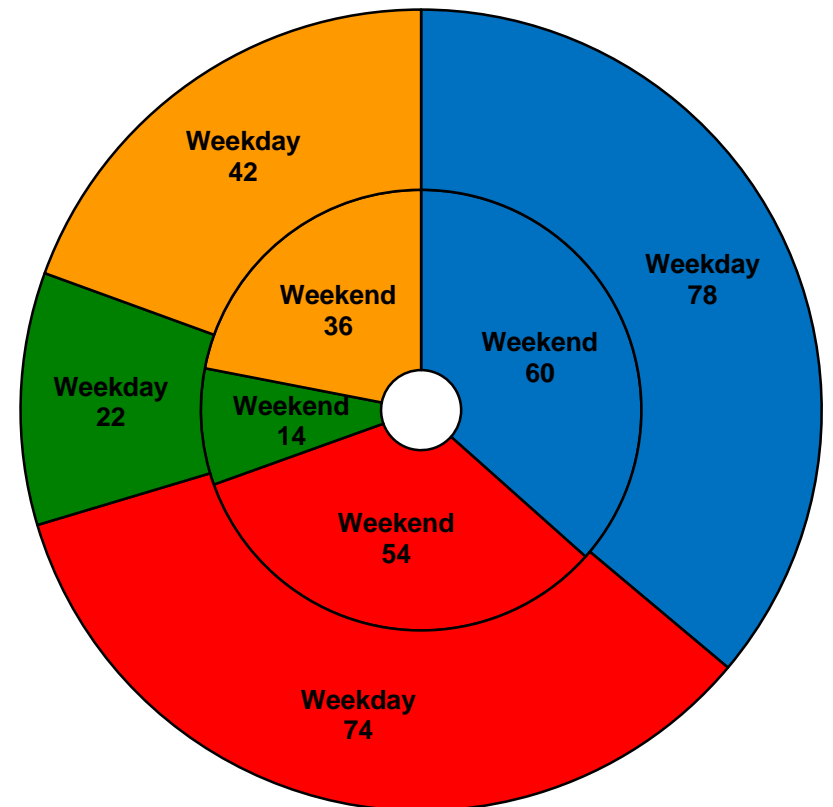
Green Line Fleet Size: 29

<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available</u>	<u>% Up (Down)</u>
Weekday:	22	22	100%
Weekend:	14	16	114%
Late Pullouts: 0			
Monthly Mileage:	228,117		

Gold Line Fleet Size: 50*

<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available</u>	<u>% Up (Down)</u>
Weekday:	42	42	100%
Weekend:	36	39	108%
Late Pullouts: 0			
Monthly Mileage:	310,432		

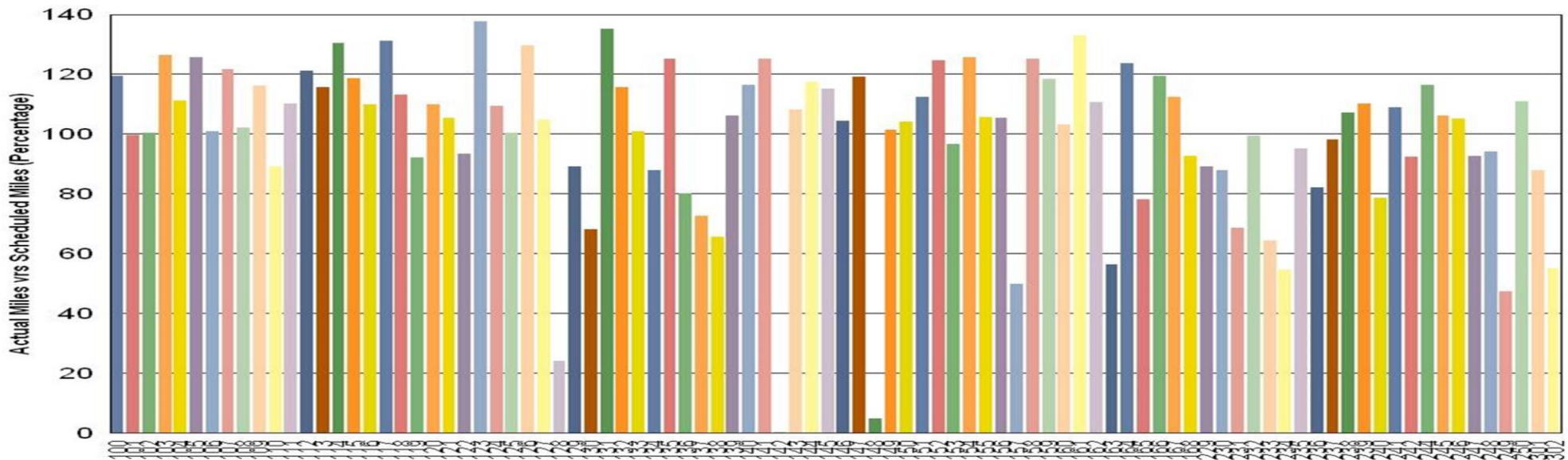
*Two cars are out on the Foothill Gold Line extension to Azusa for testing.



■ Blue/Expo Line ■ Red/Purple Line ■ Green Line ■ Gold Line

Vehicle Utilization April 2015

Metro Blue/Expo Line (92 Cars)



Blue/Expo Line: The following cars were out of service due to:

Car # 128 Overhaul and Inspection Repair

Car # 142 Accident Repair

Car # 148 Overhaul, Open work orders, and Floor Repair

Green Line: The following cars were out of service due to:

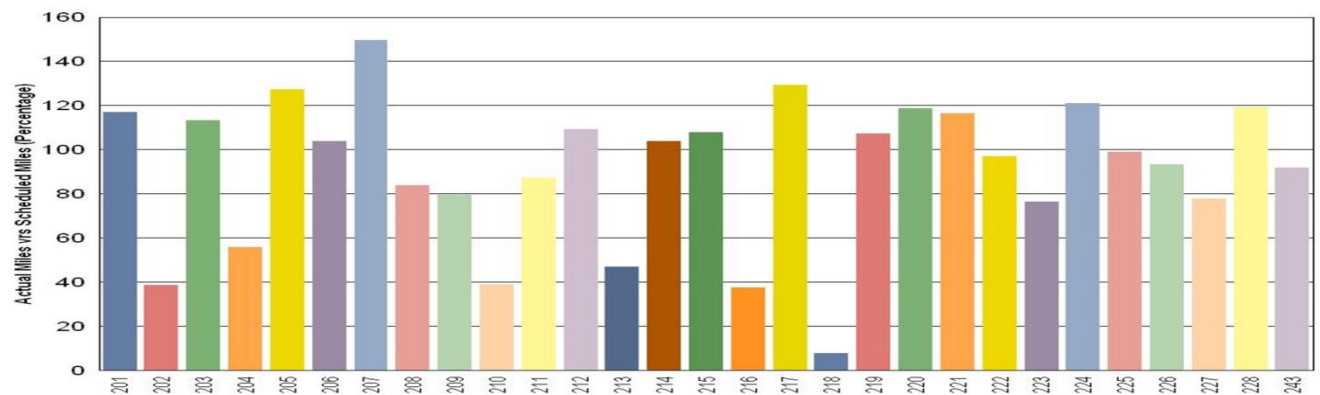
Car # 202 Propulsion Fault & 90K Inspection

Car # 210 Propulsion Fault & 90K Inspection

Car # 216 90K Inspection

Car # 218 Exterior Paint/Body Rehab

Metro Green Line (29 Cars)



Note: Percentage includes an average 4% mileage deduction for yard mileage and vehicle testing.

Vehicle Utilization April 2015

Red/Purple Line:

The following cars were out of service due to:

Car # 515-516 Auxiliary Power Failure

Car # 521-530 Trucks Repair

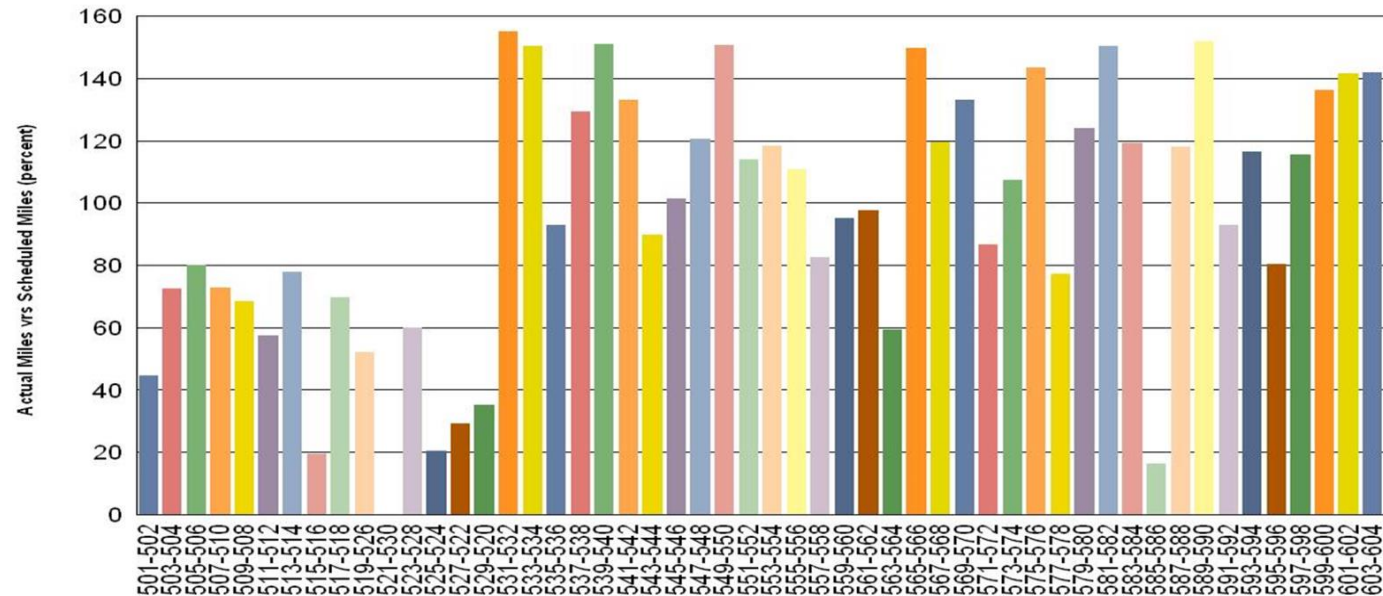
Car # 525-524 Trucks Repair & Propulsion Fault

Car # 527-522 Trucks Repair

Car # 529-520 Trucks Repair

Car # 585-586 Propulsion Fault

Metro Red/Purple Line (104 Cars)



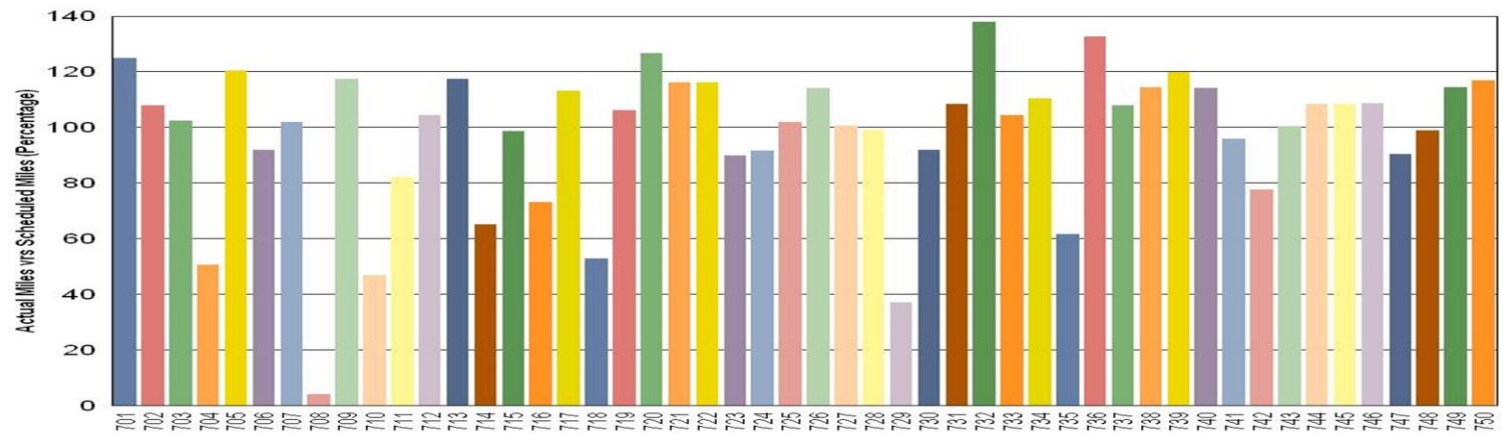
Gold Line:

The following cars were out of service due to:

Car # 708 Perform Clearance Testing at Monrovia

Car # 729 Door Modification, Truck Work, and 30K Inspection

Metro Gold Line (50 Cars)



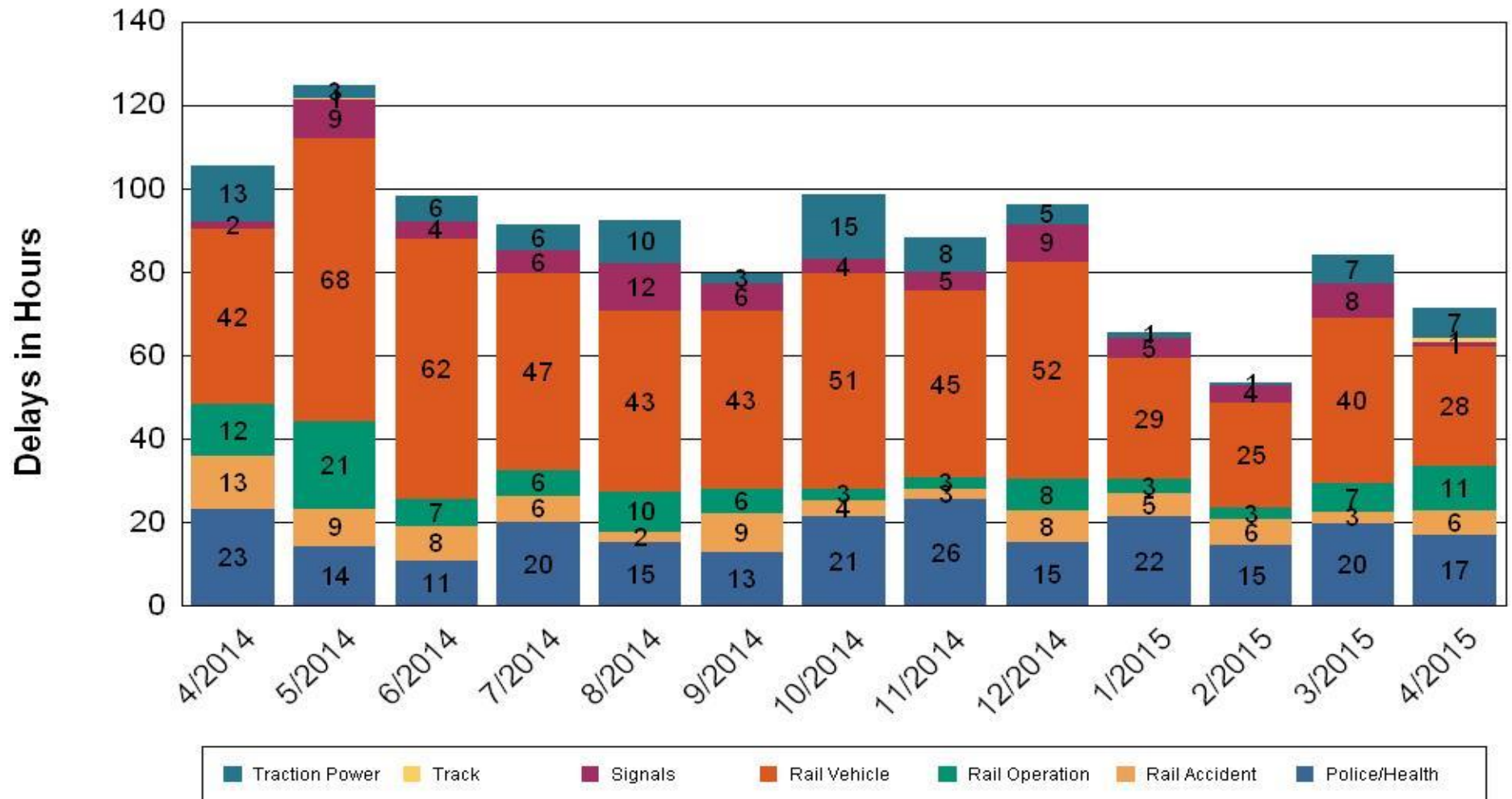
•Percentage includes an average 4% mileage deduction for yard mileage and vehicle testing.



All Train Delays (Hours) April 2014-2015

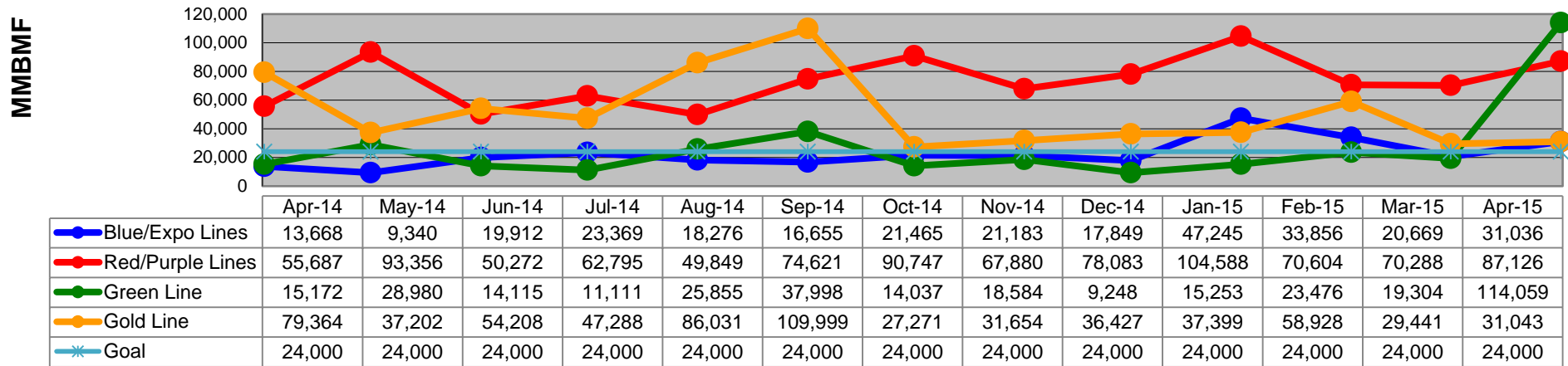
All Train Delays

Totals Include the delay to all trains involved (not just the primary incident)

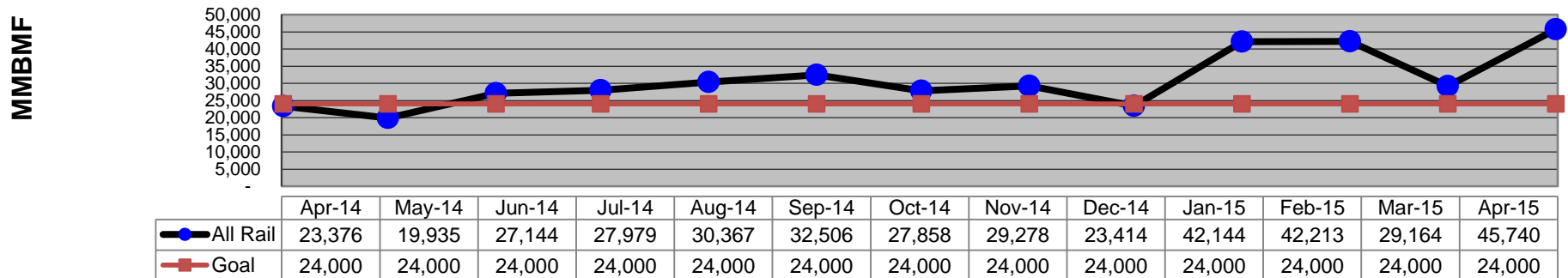


Mean Miles Between Failures (Major) April 2014-2015

Mean Miles Between Major Failures (by line)



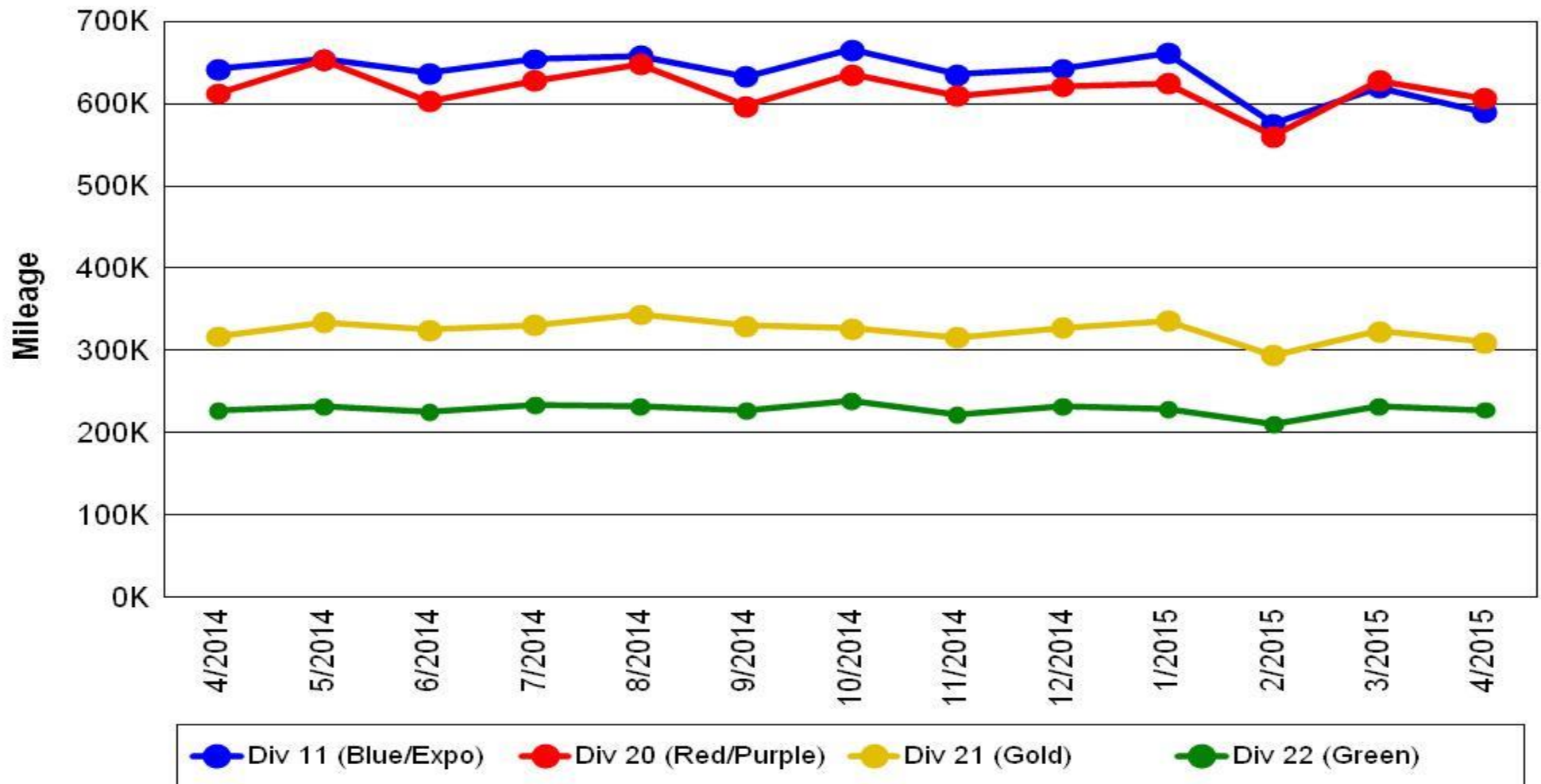
Mean Miles Between Major Failures (all)



Mileage Between Data Range (by month)

April 2014-2015

Rail Division Monthly Mileage

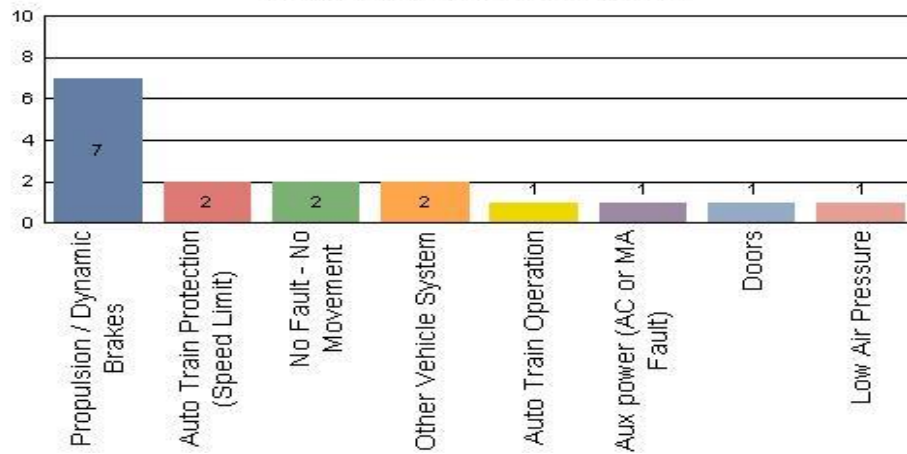


Top Incident Categories

April 2015

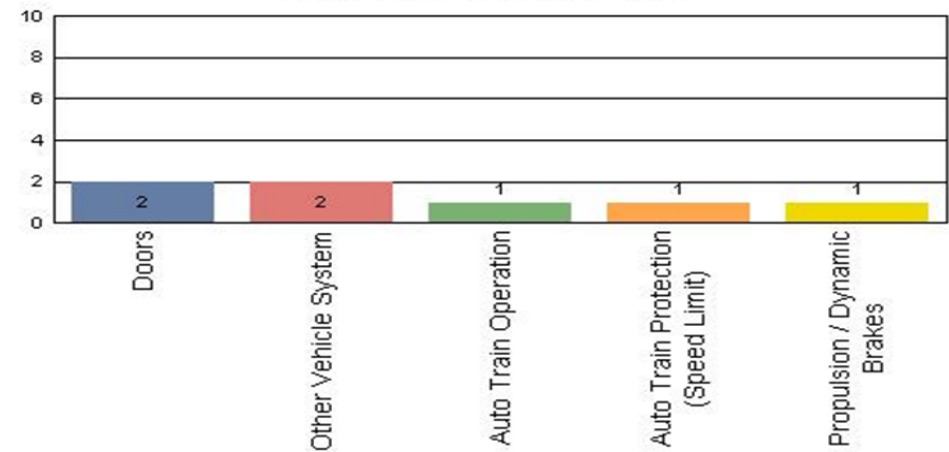
Metro Blue/Expo Line

Top Incident Categories



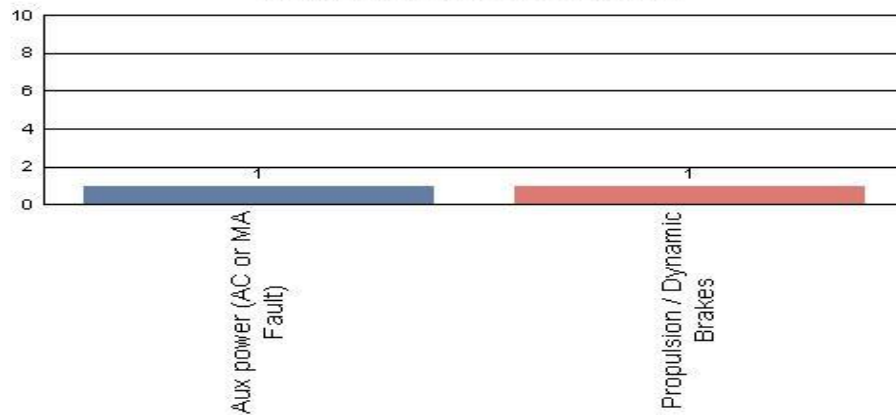
Metro Red/Purple Line

Top Incident Categories



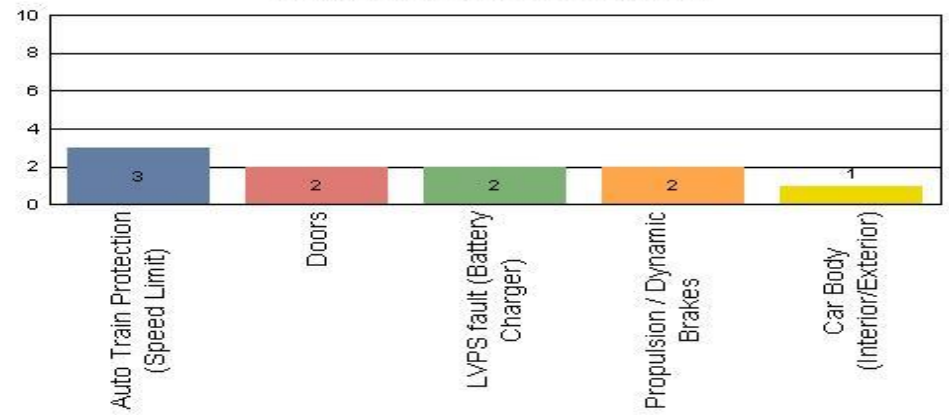
Metro Green Line

Top Incident Categories



Metro Gold Line

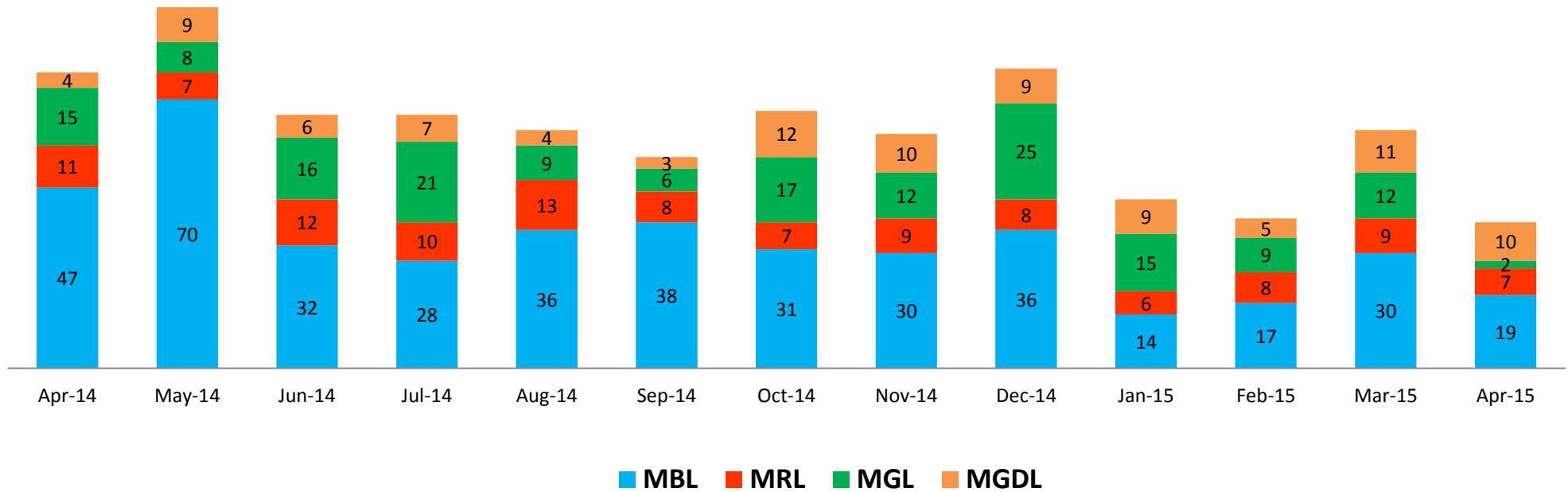
Top Incident Categories



Major Incidents

April 2014-2015

Numbers of Major System Failures (by Line)



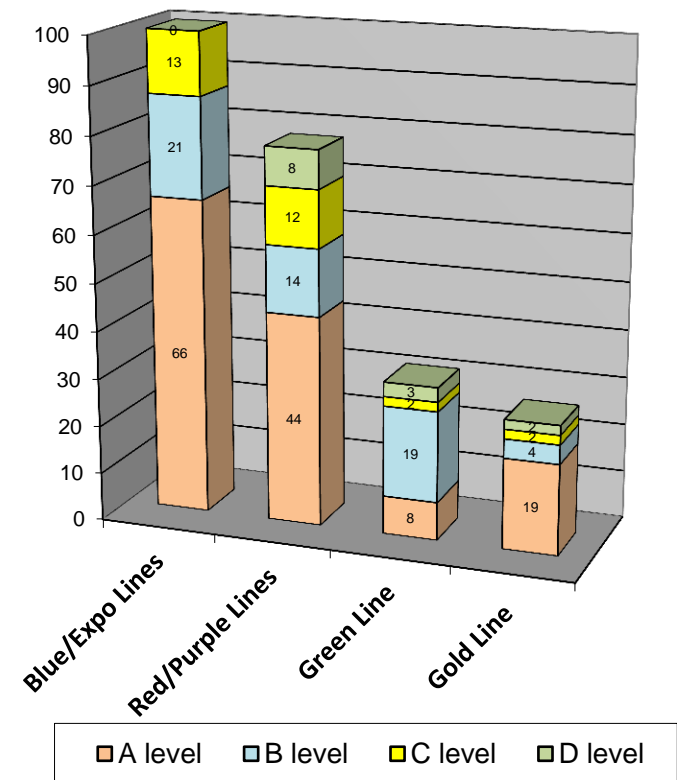
Preventive Maintenance Compliance

April 2014-2015

PM Compliance	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15
Blue/Expo Lines	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Red/Purple Lines	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	97%
Green Line	100%	100%	97%	100%	100%	100%	100%	97%	100%	100%	100%	100%	100%
Gold Line	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

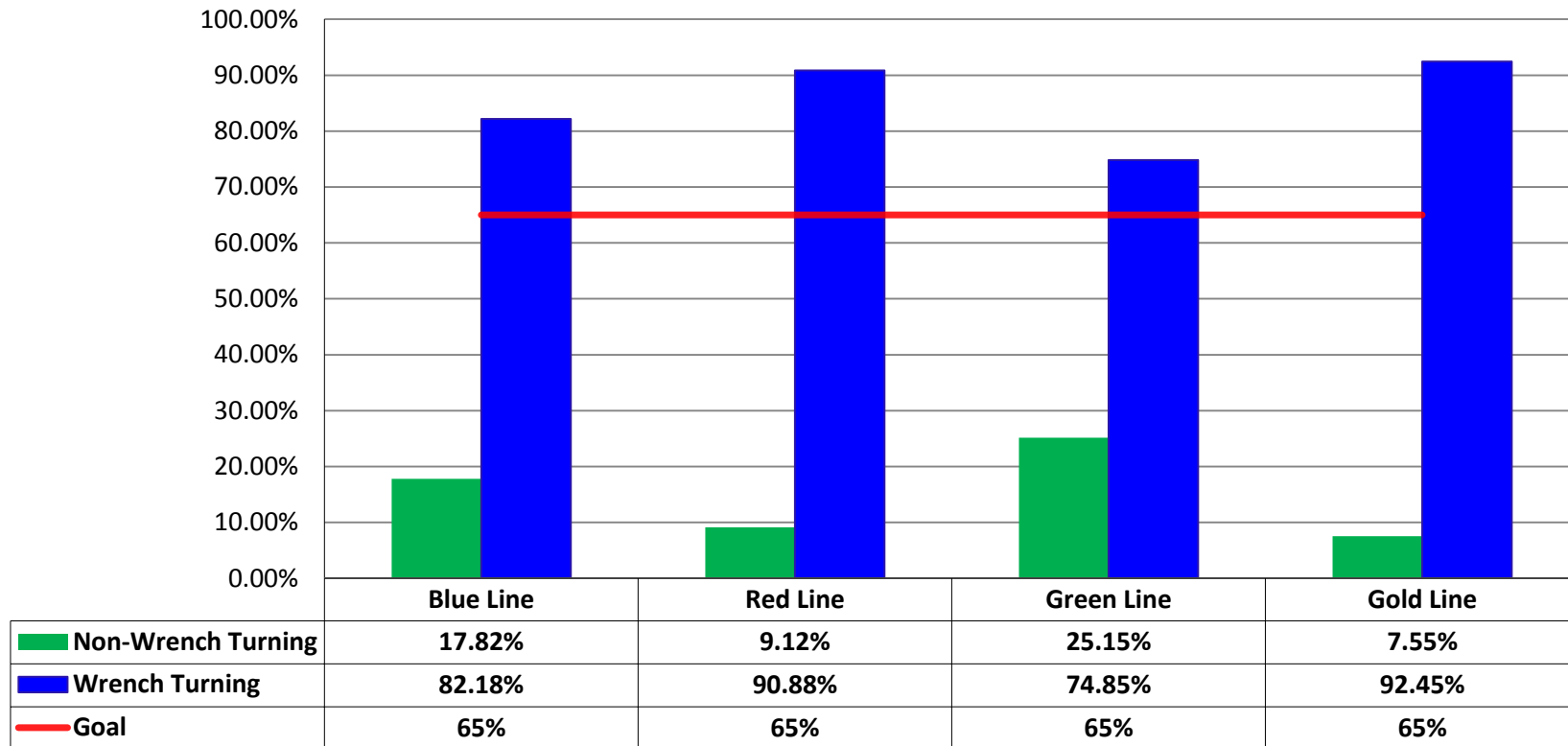
Number of Preventive Maintenance Inspections - April 2015					
Line	A level	B level	C level	D level	Totals
Blue/Expo Lines	66	21	13	0	100
Red/Purple Lines	44	14	12	8	78
Green Line	8	19	2	3	32
Gold Line	19	4	2	2	27
Totals:	137	58	29	13	237

Explanation of PM Inspection levels		Miles			
Line	Type	A level	B level	C level	D level
Blue/Expo Lines	P865/P2020	5,000	15,000	30,000	60,000
Blue/Expo Lines	P2000	7,500	22,500	45,000	90,000
Red/Purple Lines	A650	7,500	22,500	45,000	90,000
Green Line	P2000	7,500	22,500	45,000	90,000
Gold Line	P2550	10,000	30,000	60,000	120,000



RFS Wrench Turning April 2015

RFS - Wrench Turning April 2015



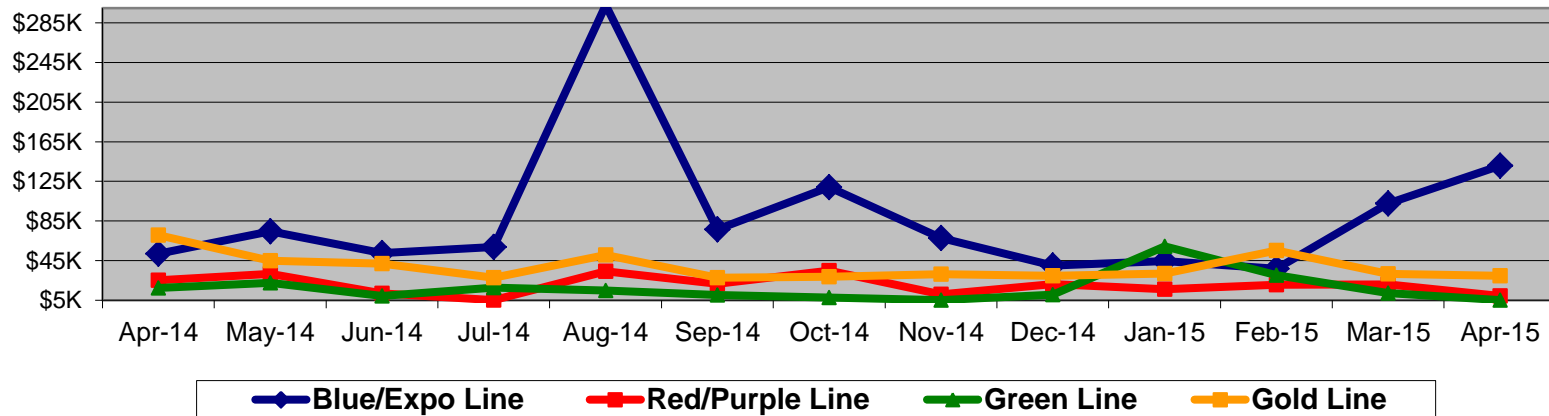
Notes: Labor hours contributed by Maint Specialist Leader, Rail Body/Paint Repair Leader, and Maint Specialist Temporary Leader

Vandalism & Graffiti Report

April 2014-2015

Graffiti Costs

	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	13-Month Period
Blue/Expo Line	\$52K	\$75K	\$53K	\$59K	\$303K	\$77K	\$119K	\$68K	\$40K	\$45K	\$37K	\$103K	\$141K	\$1169K
Red/Purple Line	\$25K	\$32K	\$12K	\$5K	\$34K	\$22K	\$35K	\$11K	\$21K	\$16K	\$21K	\$21K	\$9K	\$263K
Green Line	\$17K	\$22K	\$9K	\$18K	\$15K	\$10K	\$8K	\$5K	\$10K	\$59K	\$30K	\$12K	\$5K	\$223K
Gold Line	\$71K	\$45K	\$42K	\$28K	\$51K	\$28K	\$29K	\$31K	\$30K	\$32K	\$55K	\$32K	\$30K	\$501K
Totals:	\$165K	\$173K	\$116K	\$110K	\$402K	\$136K	\$190K	\$115K	\$102K	\$152K	\$143K	\$167K	\$185K	\$2,156K



April 2015 Vandalism & Graffiti - All Rail				
	Qty	Labor	Materials	Totals
Windows Replaced	529	\$ 41,832	\$ 69,679	\$ 111,511
Vandal Shields Replaced	1,450	\$ 24,894	\$ 17,727	\$ 42,621
Seats Cleaned	406	\$ 1,498	\$ -	\$ 1,498
Seats Inserts Replaced	48	\$ 1,624	\$ 2,133	\$ 3,757
Graffiti Removal - Other	1,048	\$ 15,060	\$ 2,784	\$ 17,844
Repainting Panels	252	\$ 7,938	\$ -	\$ 7,938
Totals	3,733	\$ 92,846	\$ 92,323	\$ 185,169

Graffiti Pictures

April 2015

Blue Line



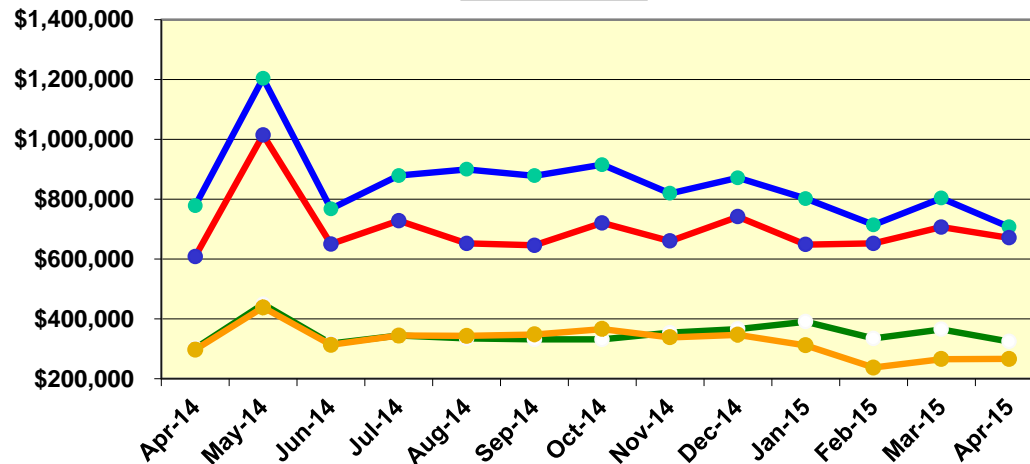
Green Line



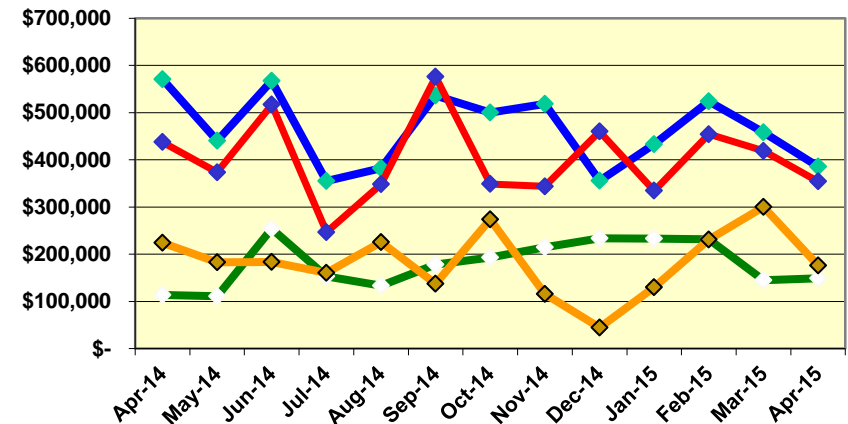
Labor and Material Costs

April 2014-2015

Labor Costs



Material Costs



Apr-14	May-15	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15
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Labor Costs

Blue/Expo Lines	\$ 778,469	\$ 1,204,234	\$ 767,717	\$ 879,339	\$ 900,043	\$ 878,598	\$ 915,432	\$ 819,497	\$ 871,682	\$ 802,256	\$ 714,349	\$ 803,757	\$ 707,348
Red/Purple Lines	\$ 608,816	\$ 1,015,092	\$ 650,226	\$ 728,383	\$ 652,202	\$ 645,981	\$ 721,060	\$ 660,321	\$ 741,908	\$ 648,538	\$ 652,406	\$ 706,794	\$ 671,084
Green Line	\$ 302,213	\$ 449,117	\$ 318,516	\$ 345,270	\$ 334,772	\$ 331,870	\$ 331,661	\$ 354,058	\$ 366,422	\$ 391,161	\$ 334,919	\$ 365,457	\$ 324,550
Gold Line	\$ 297,634	\$ 438,759	\$ 313,589	\$ 344,331	\$ 343,246	\$ 348,288	\$ 366,248	\$ 338,610	\$ 347,182	\$ 311,868	\$ 237,438	\$ 265,835	\$ 266,529
Totals	\$ 1,987,132	\$ 3,107,202	\$ 2,050,048	\$ 2,297,323	\$ 2,230,262	\$ 2,204,736	\$ 2,334,400	\$ 2,172,486	\$ 2,327,193	\$ 2,153,823	\$ 1,939,112	\$ 2,141,842	\$ 1,969,511

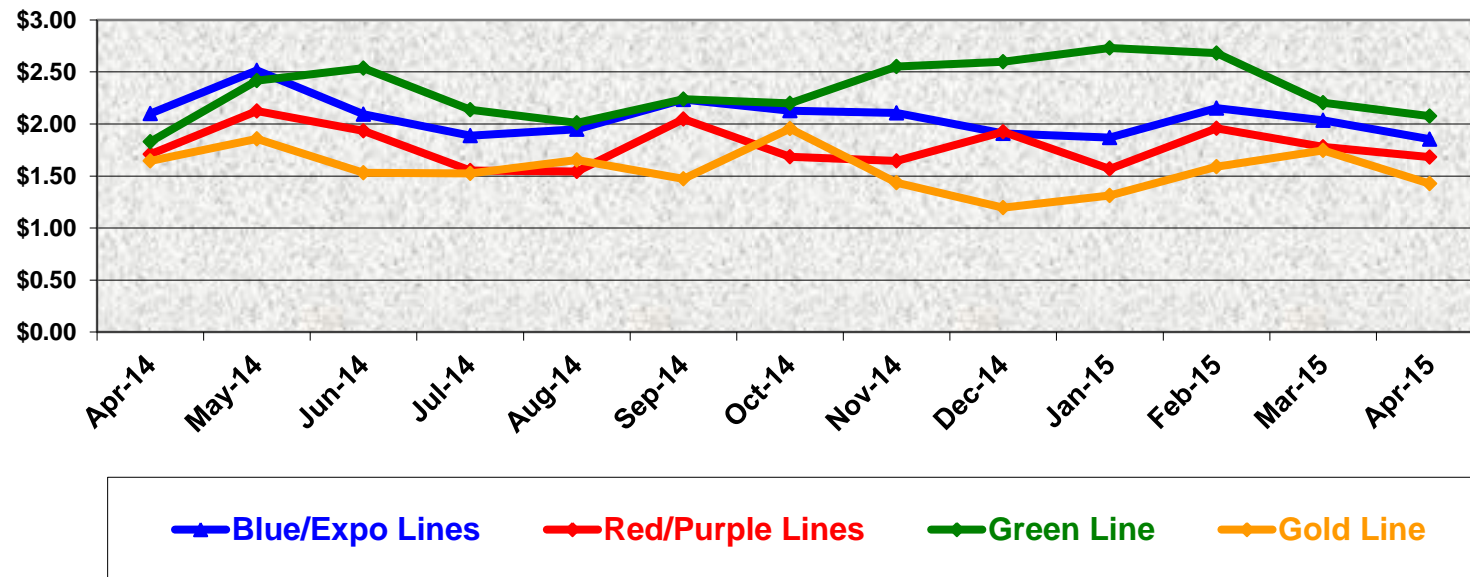
Material Costs

Blue/Expo Lines	\$ 570,775	\$ 440,576	\$ 567,257	\$ 355,405	\$ 382,184	\$ 536,100	\$ 500,390	\$ 518,334	\$ 355,729	\$ 433,347	\$ 524,157	\$ 458,588	\$ 385,794
Red/Purple Lines	\$ 437,612	\$ 373,815	\$ 516,934	\$ 247,048	\$ 348,370	\$ 576,230	\$ 349,031	\$ 343,936	\$ 460,076	\$ 334,623	\$ 454,326	\$ 419,099	\$ 354,492
Green Line	\$ 113,979	\$ 111,344	\$ 254,264	\$ 153,001	\$ 133,386	\$ 178,206	\$ 193,176	\$ 214,902	\$ 234,118	\$ 233,318	\$ 231,562	\$ 144,927	\$ 148,839
Gold Line	\$ 224,430	\$ 183,115	\$ 183,869	\$ 160,751	\$ 225,818	\$ 137,883	\$ 274,059	\$ 116,179	\$ 44,498	\$ 130,036	\$ 230,896	\$ 300,170	\$ 175,922
Totals	\$ 1,346,796	\$ 1,108,849	\$ 1,522,323	\$ 916,204	\$ 1,089,759	\$ 1,428,418	\$ 1,316,657	\$ 1,193,351	\$ 1,094,420	\$ 1,131,324	\$ 1,440,941	\$ 1,322,783	\$ 1,065,048

Cost Per Mile April 2014-2015

Cost per mile:	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15
Blue/Expo Lines	\$2.10	\$2.52	\$2.10	\$1.89	\$1.95	\$2.24	\$2.13	\$2.11	\$1.91	\$1.87	\$2.15	\$2.04	\$1.85
Red/Purple Lines	\$1.71	\$2.13	\$1.93	\$1.55	\$1.54	\$2.05	\$1.68	\$1.64	\$1.92	\$1.57	\$1.96	\$1.78	\$1.68
Green Line	\$1.83	\$2.42	\$2.54	\$2.14	\$2.01	\$2.24	\$2.20	\$2.55	\$2.60	\$2.73	\$2.68	\$2.20	\$2.08
Gold Line	\$1.64	\$1.86	\$1.53	\$1.53	\$1.65	\$1.47	\$1.96	\$1.44	\$1.19	\$1.31	\$1.59	\$1.75	\$1.43

Cost per Mile



ATU Absences vs. Overtime

April 2015

ABSENCE TYPE and HOURS	3941 & 3947 Blue & Expo	3942 Red	3943 Green	3944 Gold	Total
AWP-ABSENT W/O PERMISSION	-	-	171	-	171
BER-BEREAVEMENT	-	48	-	40	88
CTO-COMPENSATORY TIME OFF	632	602	120	257	1,610
CUT-EMPLOYEE LEAVES EARLY	1	-	1	0	2
DSL-DISABILITY LEAVE/LONG	824	568	-	-	1,392
EFH-EMG. FLOAT HOL.	-	56	40	24	120
ETO-EXCUSED TIME OFF	90	43	7	49	188
FMI-FAM IND INJURY	208	-	160	-	368
FML-FAMILY CARE LEAVE	514	246	232	304	1,296
FMS-FAMILY LEAVE SICK	99	68	56	60	284
HLF-HOLIDAY FLOATING	232	216	144	140	732
II-INDUSTRIAL INJURY	16	-	168	-	184
IIR-INDUS INJURY -REOCCUR.	-	64	-	-	64
JUR-JURY DUTY	8	-	-	8	16
LC1-LABOR CODE 233	348	371	72	204	995
LTI-OCCPIL/LONGTRM INJ LEAVE	336	288	-	-	624
MLN-MILITARY ABSENCE-UNPAID	8	-	-	-	8
OWP-OFF WITH PERMISSION	-	24	-	-	24
RTO-REQUESTED TIME OFF-NO PAY	50	-	-	-	50
SCK-SICK PAY	184	314	118	148	764
SCW-SICK WITHOUT PAY	16	64	98	64	242
SPN-SCHOOL PARTNER NOT PAID	-	8	-	-	8
SUS-DISCIPLINARY SUSPENSION	-	-	-	8	8
TAR-TARDY	1	0	1	0	3
UNP-UNION BUS PAID	-	-	6	-	6
VAC-VACATION	795	1,308	405	352	2,859
Total Absence Hours	4,361	4,287	1,798	1,658	12,105
ATU Number of Work Force (budget)	125	104	46	48	323
Full Work Force hours/month	21,663	18,023	7,972	8,318	55,976
Absence as a % of Work Force	20%	24%	23%	20%	22%

OVERTIME TYPE and HOURS	3941 & 3947 Blue & Expo	3942 Red	3943 Green	3944 Gold	Total
CTB-COMPENSATORY TIME TO BANK	128	101	29	76	334
OTP-PREM OVERTIME	4,450	3,783	1,622	1,379	11,234
WLO-Worked Lunch Overtime	168	226	84	43	519
Total Overtime Hours	4,746	4,109	1,734	1,498	12,087
Overtime as a % of Work Force	22%	23%	22%	18%	22%

Note: Overtime also covers other required activities, including Training, Component Overhaul, and Special Events.



Metro

RFS Instruction Department Activities

April 2015

Training classes completed during the month of April 2015

Description	Course Hours	Student Count	Training Hours
Blue & Expo Line Training - (P865/2020 & P2000 LRV):			
RFS 865/2020 VEHICLE INTRO	16	6	96
RFS 2-WEEK RAIL INTRODUCTION	80	6	480
RFS 865/2020 KB-POWERTECH INVERTER	24	7	168
RFS 865/2020 HVAC SYSTEM	64	6	384
REFRIGERANT RECOVERY SYSTEMS (608)	16	6	96
RFS 865/2020 CAR BODY	8	6	48
RFS 865/2020 LVPS & BATTERY	8	6	48

Total Blue Line Training (Hours): 1,320

Red Line Training (Breda A650 HRV):

RFS PROTRAN1 TRAINING	1	1	1
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Total Red Line Training (Hours): 1

Gold Line Training (P2550 LRVs):

RFS ANSALDOBREDA 2550 PROPULSION	80	8	640
RFS ANSALDOBREDA 2550 COUPLER	12	8	96
RFS ANSALDOBREDA 2550 APS/LVPS/BATTERY	24	8	192
HAZARD COMMUNICATION FOR EMPLOYEES	1	5	5

Total Gold Line Training (Hours): 933

JAC Training (P2000 LRVs):

RFS SIEMENS 2000 VEHICLE SYSTEMS	8	8	64
RFS SIEMENS 2000 PROPULSION	80	8	640

Total JAC Training (Hours): 704

Total RFS Instruction for the month of April 2015 (Hours): 2,318

Other Instruction Activities

A650 Curriculum, Administrative, and Technical Support	160
P865/P2020 Curriculum, Administrative, and Technical Support	40
P2000 Curriculum, Administrative, and Technical Support	80
P2550 Curriculum, Administrative, and Technical Support	80

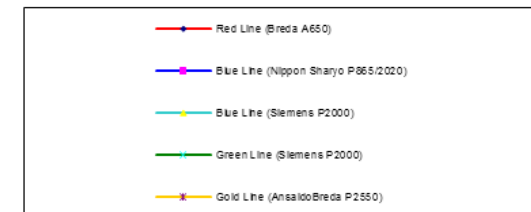
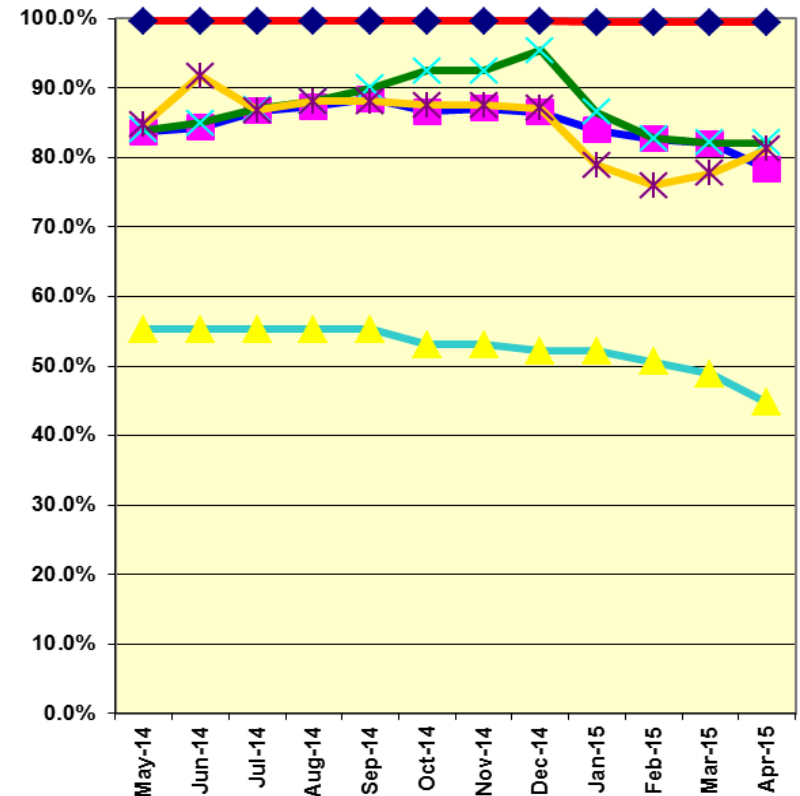
Total Other Instruction Activities 360

Core Vehicle Training Completed: BLUE RED GREEN GOLD

Percentage of core vehicle training complete:	78.4%	99.5%	82.1%	81.2%
Siemens P2000 training complete:	44.7%	N/A	N/A	N/A

Average Specialist Rail Experience Level in Years: 11.0 11.7 8.8 9.5

Core Training Completed



Variations caused by new hires, employee transfers, & training completed



Metro