



High Quality Service through Continuous Improvement

2015 1st Quarter Performance Report

TriMet Board Briefing May 27, 2015

Quality is a never ending quest and continuous improvement is a never ending way to discover and eliminate the root causes of problems. It accomplishes this by using sustainable, small-steps improvements rather than implementing one huge improvement. It is simply a way of looking at how we can do our work better.

Key performance indicators are performance measurements that identify the level of continual progress toward attaining stated objectives.

APPROACH

Focus on three primary areas for improvement:

1. Vehicle and System Reliability

Goal: Reduce service disruptions through effective preventive maintenance and asset management.

Key Performance Indicators: Preventive maintenance schedule compliance, mean distance traveled between mechanical failures, and maintenance attendance.

- *Bus Maintenance, Rail Equipment Maintenance, Maintenance of Way, and Fare Equipment Maintenance all exceeded preventative maintenance objectives for the 2015 1st Quarter. Significant improvement noted in Maintenance of Way, which had a 9.3% improvement over the 2014 1st Quarter. Preventive maintenance remains a core focus of Maintenance Executive Director Sam Marra.*
- *Similarly, MAX Light Rail and fixed route bus both improved in miles traveled between service related repairs over the 2014 1st Quarter, with MAX Light Rail posting a 12.7% gain and fixed route bus improved by 4.8%.*
- *Overall Maintenance attendance was slightly down from the 2014 1st Quarter by 1.1%, mostly attributable to an increase over the Quarter in Maintenance of Way sick leave involving a small number of employees on extended sick leave. Attendance in all other Maintenance departments remained steady.*

2. Service Delivery

Goal: Ensure efficient service delivery by creating staffing levels and reporting structure that increase the ability to respond quickly to service needs and customers. Improve route design and service delivery through ongoing line reviews.

Key Performance Indicators: On time performance, operator attendance, and boarding rides per revenue hour.

- *Fixed route bus on time performance was up over the 2014 1st Quarter by 4.0%. MAX on time performance was slightly down from the 2014 1st Quarter by 1.1%, mostly attributable to delays due to faulty rail wheel detection in the Gateway Transit Center area that was causing trains to trip or be brought to a gradual stop. This issue was intermittent over several weeks and trouble-shooting was complex and lengthy. Since a final repair was implemented, the relevant systems are now operating as designed. WES Commuter Rail improved by 1.0% in on time performance over the 2014 1st Quarter.*
- *Transportation employee attendance declined by 0.9% from the 2014 1st Quarter, moving from 91.0% to 90.1%. The decline is mostly attributable to higher than usual light rail operator sick leave and family leave in the Quarter.*
- *Bus and MAX boarding rides per revenue hour decreased from the 2014 1st Quarter, with bus posting a 1.9% decline. Frequent bus service was restored in the September 2014 service change and again in the March 2015 service change, each of which added capacity to the system. While ridership continues to grow, the service restoration generated capacity for future growth in the near term. MAX and WES were down by 1.0%, and 9.5% respectively. System-wide however, boarding rides were down by only 1.5 rides per revenue hour, going from 62.4 rides per revenue hour in the 2014 1st Quarter to 60.9 rides per revenue hour in the 2015 1st Quarter.*

3. Operator Support

Goal: Improve safety and customer service through customized training programs for operators and supervisors.

Key Performance Indicators: annual operator recertification training rate, collisions, complaints and commendations.

- *Bus and MAX light rail operator annual training and recertification for Fiscal Year 2015 completed in March.*
- *Bus collisions per 100,000 miles decreased by 0.51 collisions in the 2015 1st Quarter over the 2014 1st Quarter, a 21.3% improvement. Similarly, MAX light rail collisions per 100,000 miles traveled decreased by .22 collisions from the 2014 1st Quarter, a 19.3% improvement.*
- *Bus operator complaints per 100,000 boarding rides decreased from 17.8 in the 2014 1st Quarter to 16.4 in the 2015 1st Quarter, a decrease of 7.6%. MAX operator complaints per 100,000 boarding rides increased by 1.1 complaints, going from 3.3 in the 2014 1st Quarter to 4.4 in the 2015 1st Quarter. This increase was mostly in the broad category called "Service Delivery" and reflects the large number of new light rail operators as well as the MAX service delays referenced above in the first bullet under item 2, Service Delivery.*
- *Bus commendations declined in the 2015 1st Quarter from the 2014 1st Quarter by 0.9 commendations per 100,000 boardings and MAX commendations reduced by 0.6 commendations per million boardings.*

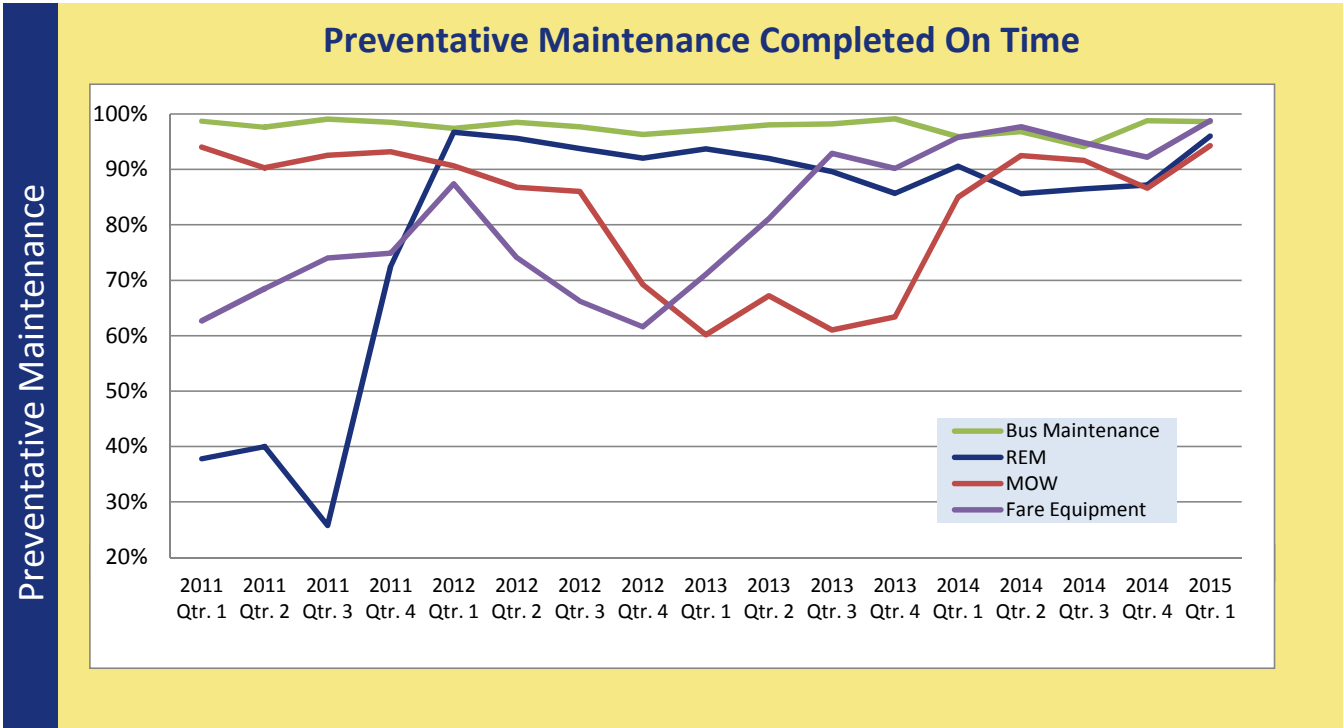


2015 1st Quarter Report

Quarterly Performance Report

Preventative Maintenance Completed On Time

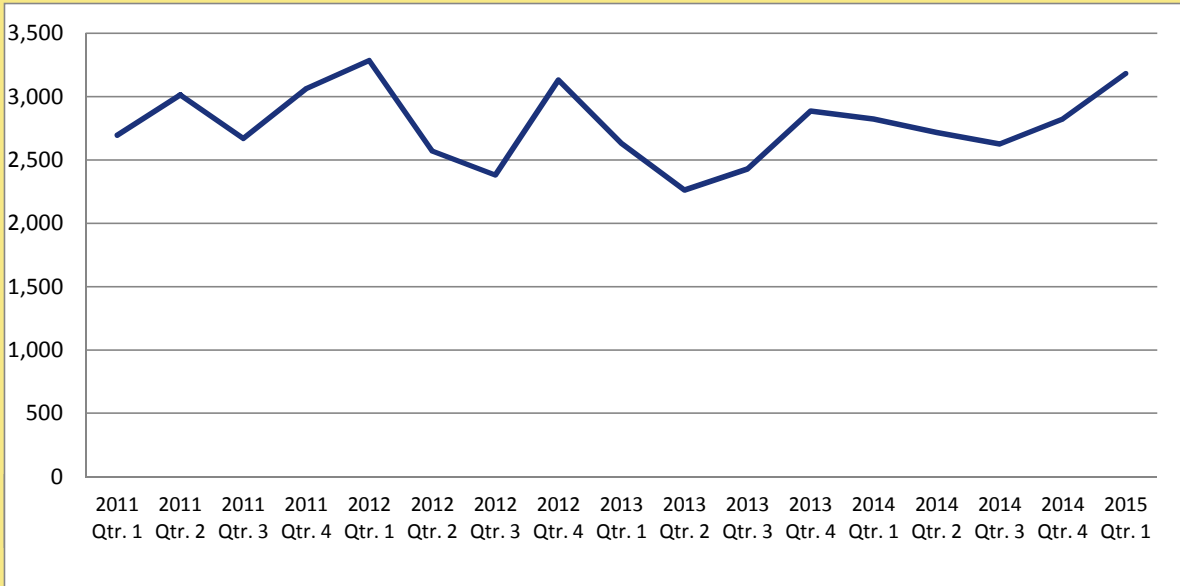
	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 1</u>	<u>2015 - 2014</u> <u>Percent Pt. Change</u>
Bus Maintenance	98.6%	98.8%	95.9%	2.7%
REM	96.0%	87.2%	90.6%	5.4%
MOW	94.3%	86.6%	85.0%	9.3%
Fare Equipment	98.8%	92.2%	95.8%	3.0%



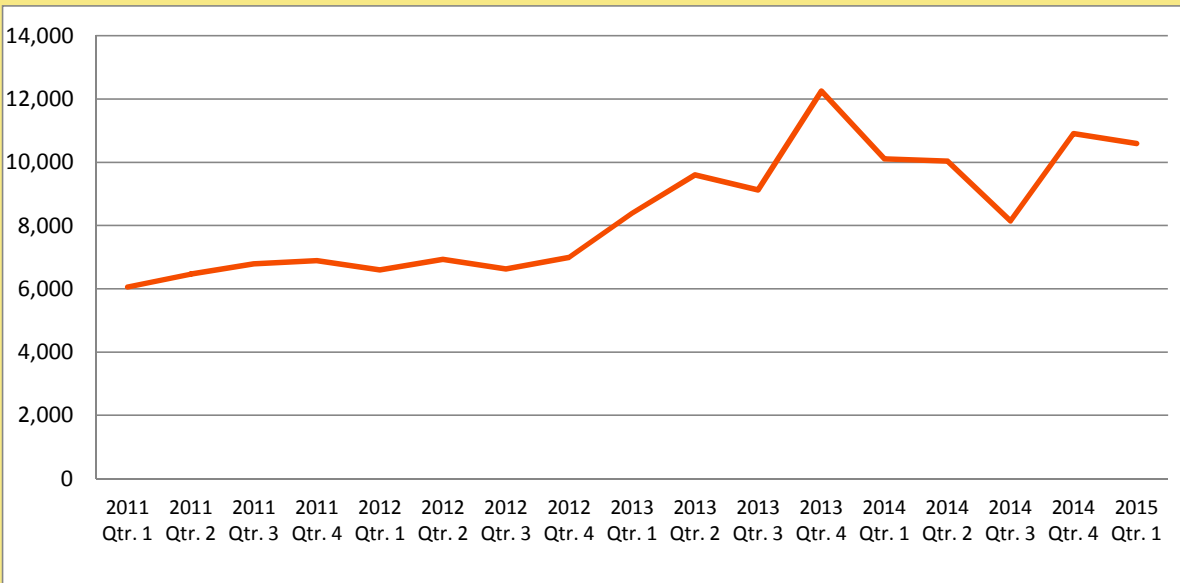
Mean Distance Between Failures (MDBF)

	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 1</u>	<u>2015 - 2014 Percent Change</u>
MAX Light Rail	3,182	2,823	2,824	12.7%
Fixed Route Bus	10,590	10,907	10,106	4.8%

MAX Light Rail Car Miles / Service Related Repairs



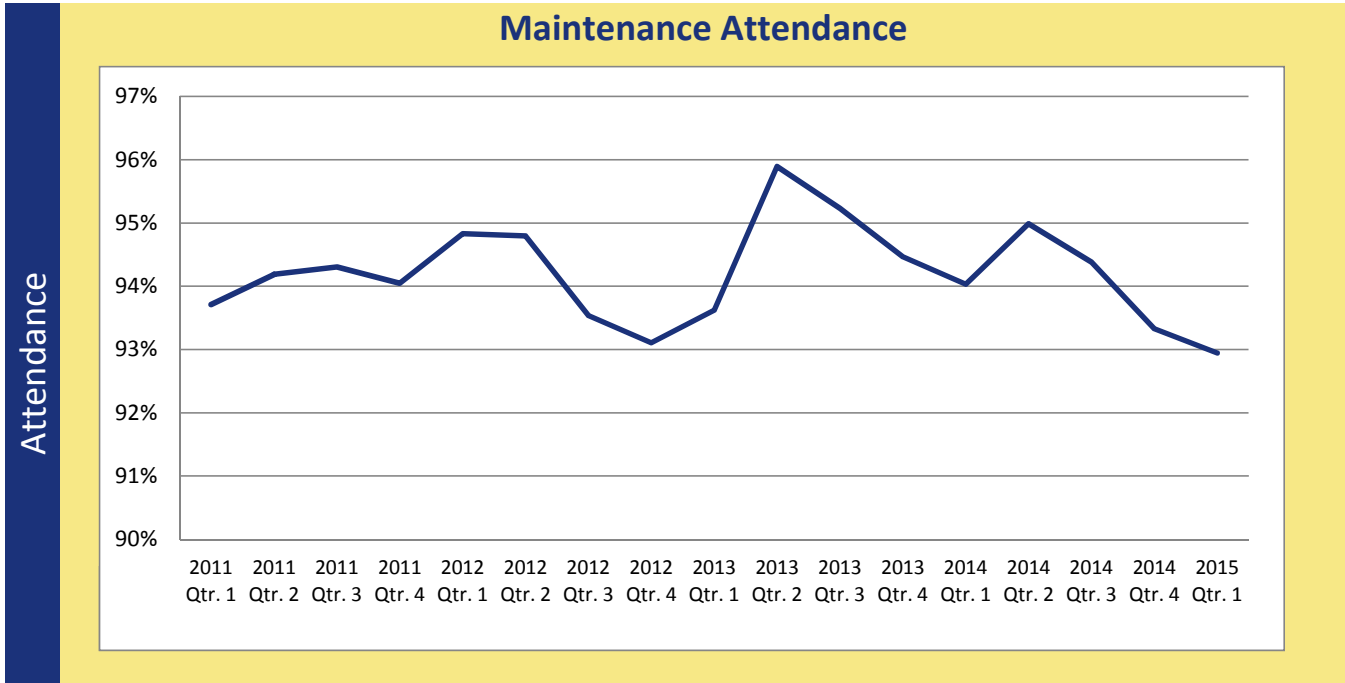
Fixed Route Bus Miles Between Mechanical Failures - Lost Service



Mean Distance Between Failures (MDBF)

Maintenance Employee Attendance

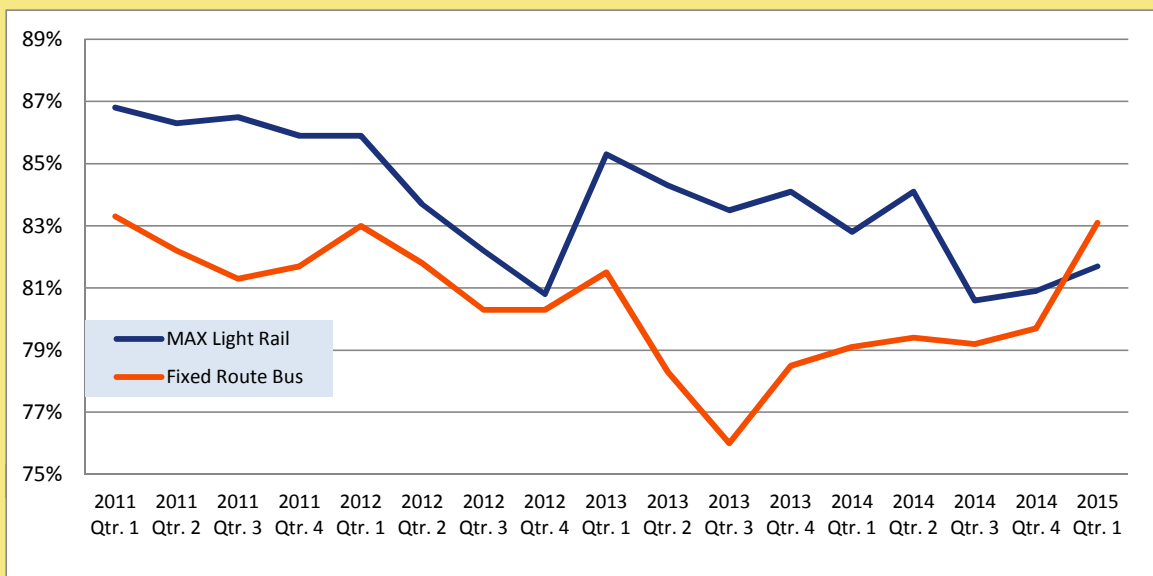
	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 1</u>	<u>2015 - 2014</u> <u>Percent Pt. Change</u>
Maintenance	92.9%	93.3%	94.0%	-1.1%



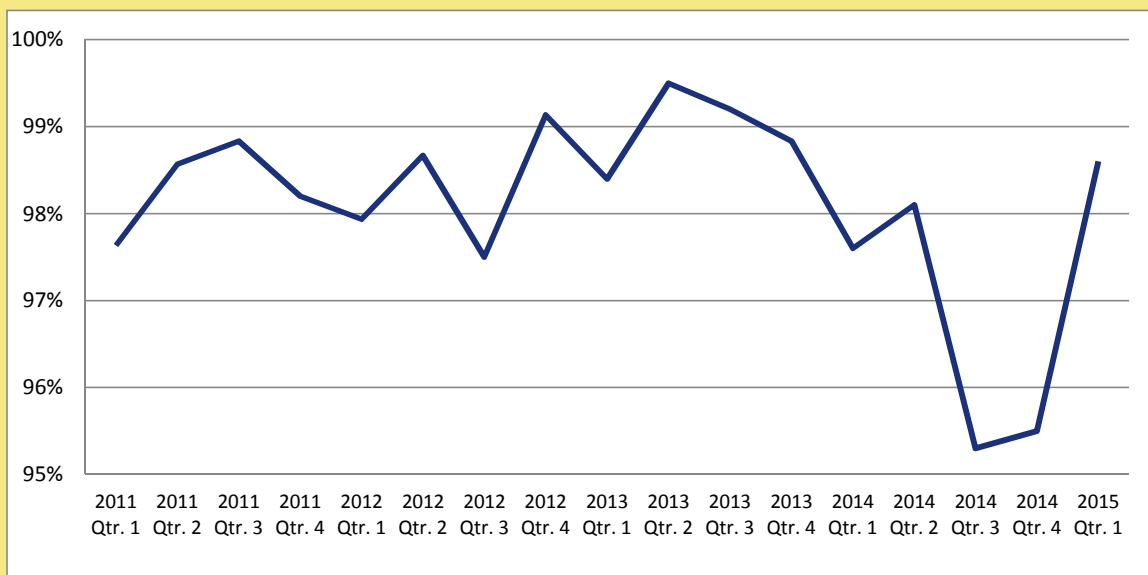
On Time Performance

	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 1</u>	<u>2015 - 2014</u> <u>Percent Pt. Change</u>
Fixed Route Bus	83.1%	79.7%	79.1%	4.0%
MAX Light Rail	81.7%	80.9%	82.8%	-1.1%
WES Commuter Rail	98.6%	95.5%	97.6%	1.0%

Bus and MAX Light Rail OTP



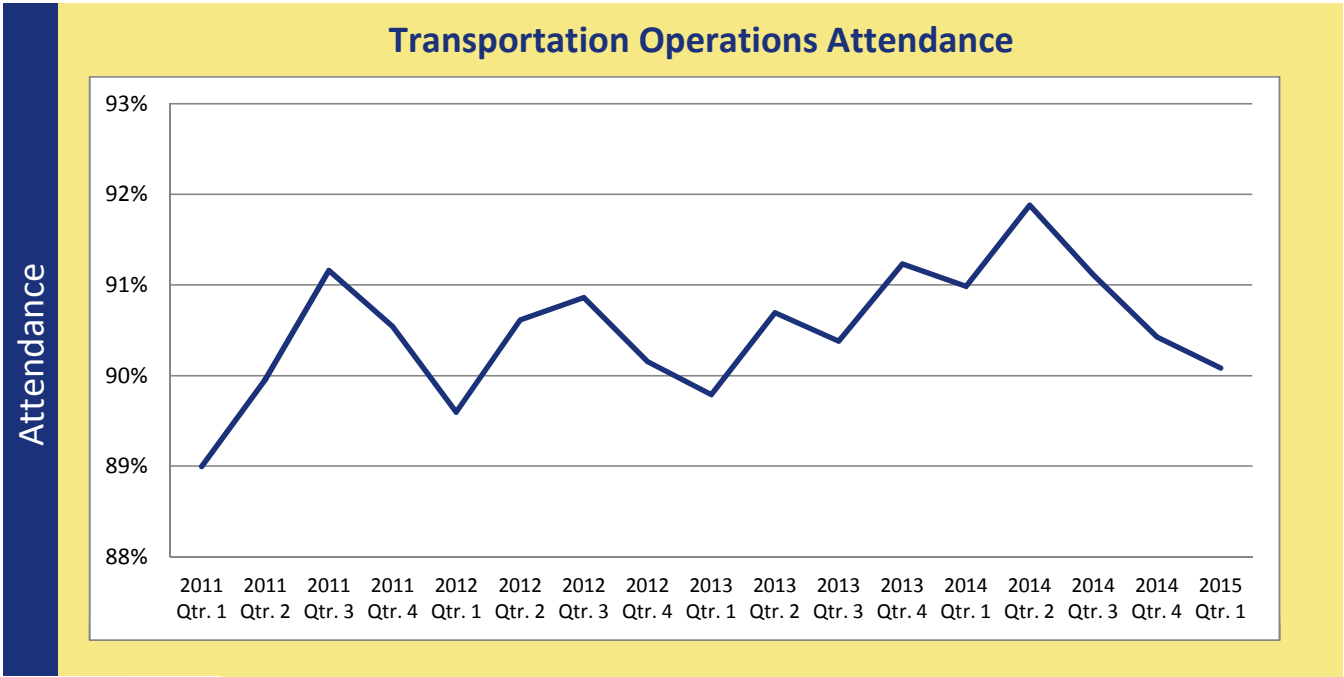
WES Commuter Rail OTP



On Time Performance

Transportation Operations Employee Attendance

	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 1</u>	<u>2015 - 2014</u> <u>Percent Pt. Change</u>
TransOps	90.1%	90.4%	91.0%	-0.9%

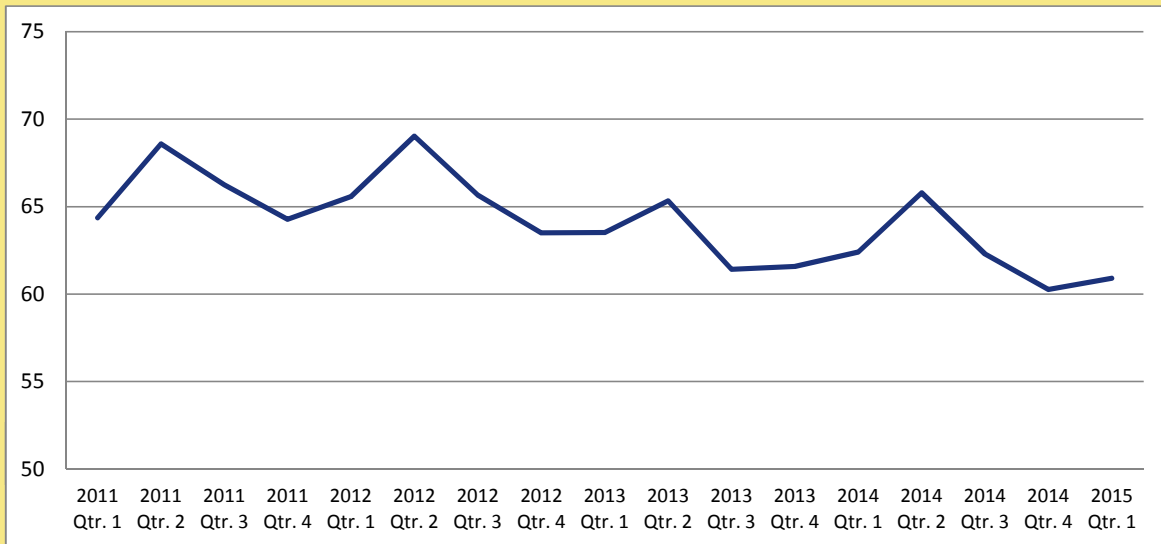


Boarding Rides Per Revenue Hour

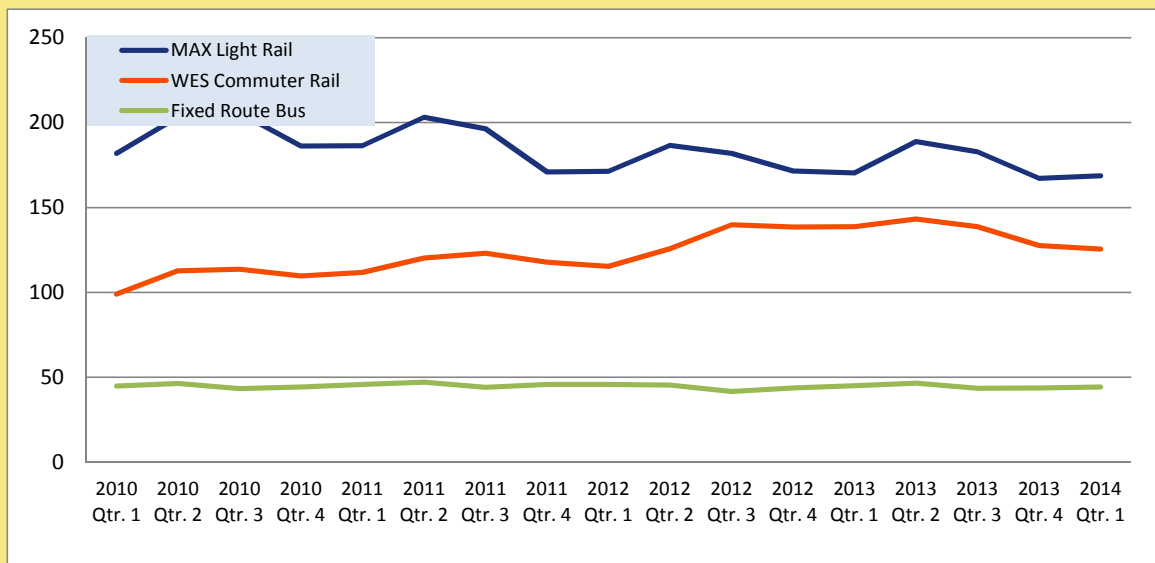
	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 1</u>	<u>2015 - 2014</u> <u>Percent Change</u>
Total	60.9	60.3	62.4	-2.4%
Fixed Route Bus	44.2	43.6	45.1	-1.9%
MAX Light Rail	168.7	167.1	170.4	-1.0%
WES Commuter Rail	125.5	127.5	138.7	-9.5%

TriMet Boarding Rides Per Revenue Hour

Total Fixed Route Rides Per Revenue Hour



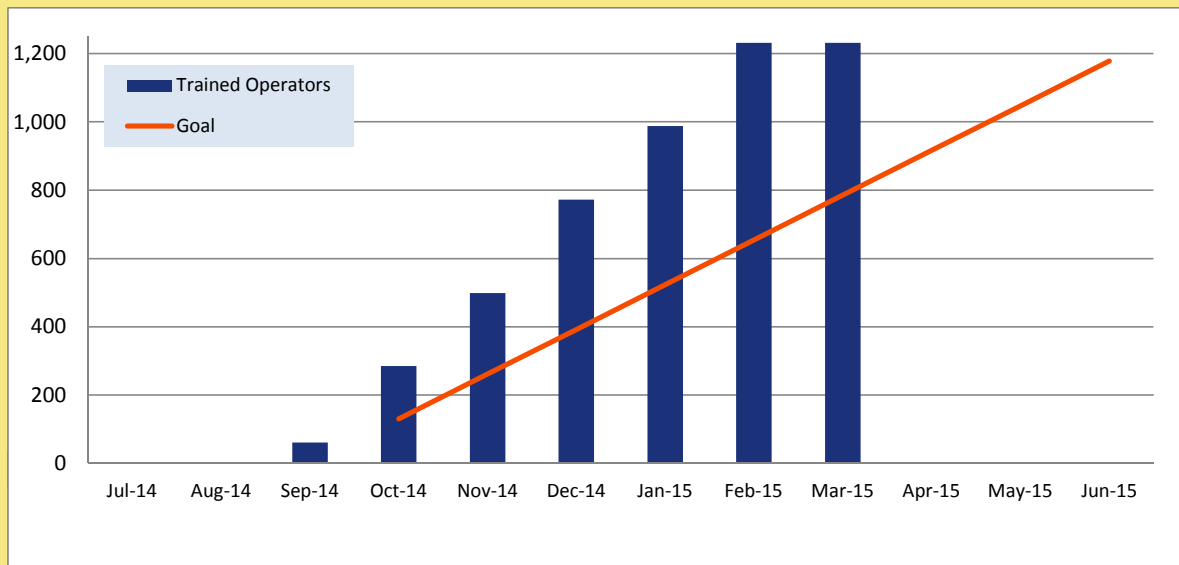
Rides Per Revenue Hour By Mode



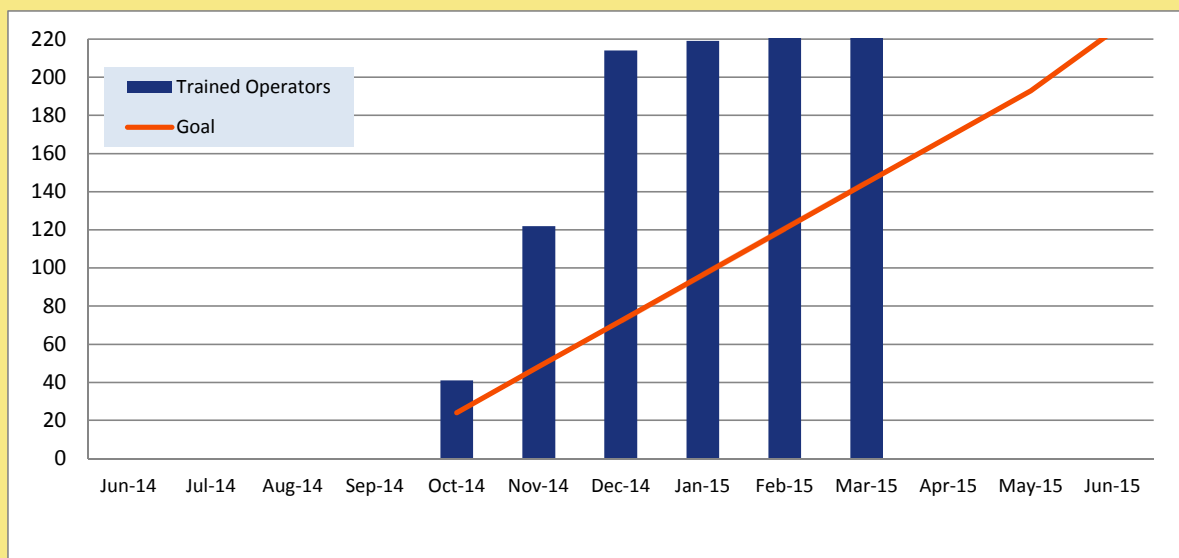
Annual Operator Recertification Training

	<u>Jan-15</u>	<u>Feb-15</u>	<u>Mar-15</u>	<u>Fiscal Year</u>
Bus Trained	988	1,231	1,231	
Cumulative Goal	524	654	785	1,250
MAX Trained	219	224	224	
Cumulative Goal	96	121	145	224

Bus Operator Annual Recertification - Actual to Goal



MAX Light Rail Annual Recertification - Actual to Goal

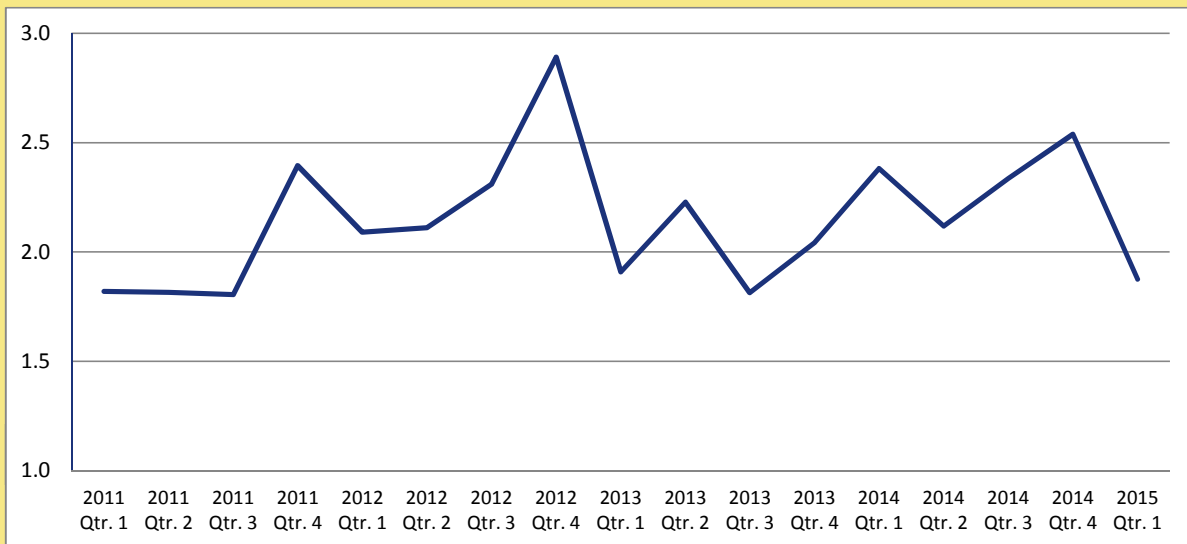


Operator Recertification Training

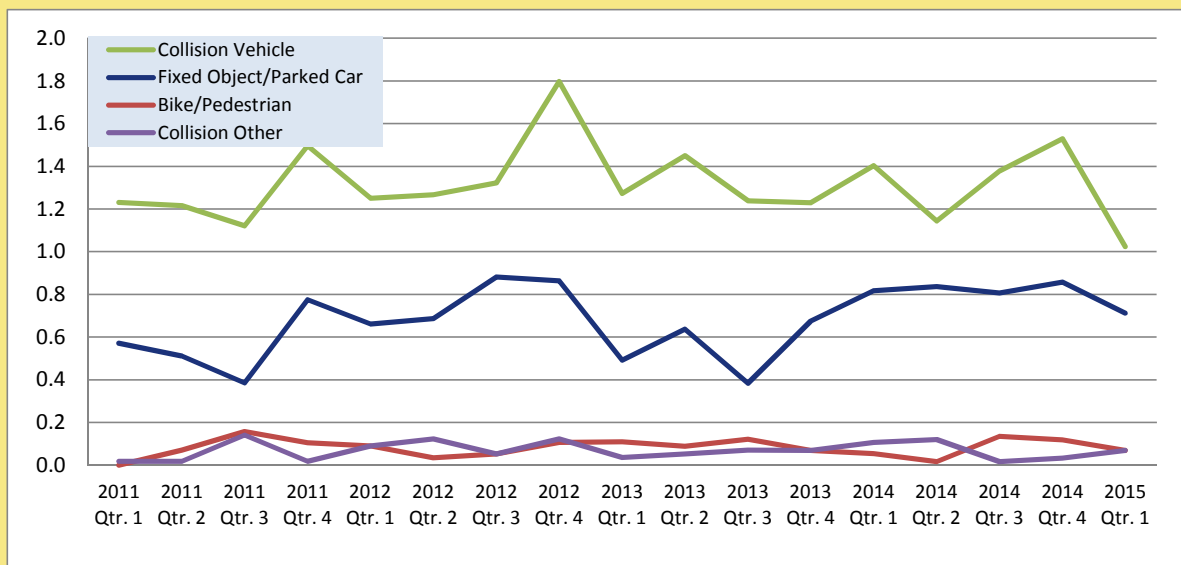
Fixed Route Bus Collisions Per 100,000 Miles

	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 1</u>	<u>2015 - 2014</u> <u>Percent Change</u>
Total	1.87	2.54	2.38	-21.3%
Collision Vehicle	1.02	1.53	1.40	-27.0%
Fixed Object/Parked Car	0.71	0.86	0.82	-12.9%
Bike/Pedestrian	0.07	0.12	0.05	30.2%
Collision Other	0.07	0.03	0.11	-34.9%

Total Bus Collisions Per 100,000 Miles



Bus Collision Types Per 100,000 Boarding Rides

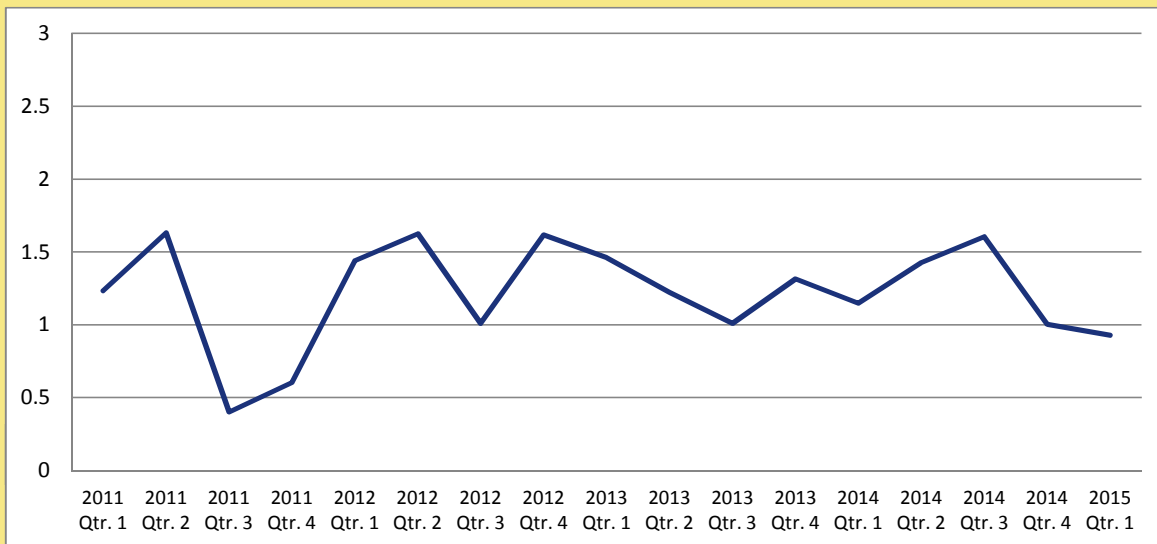


Fixed Route Bus

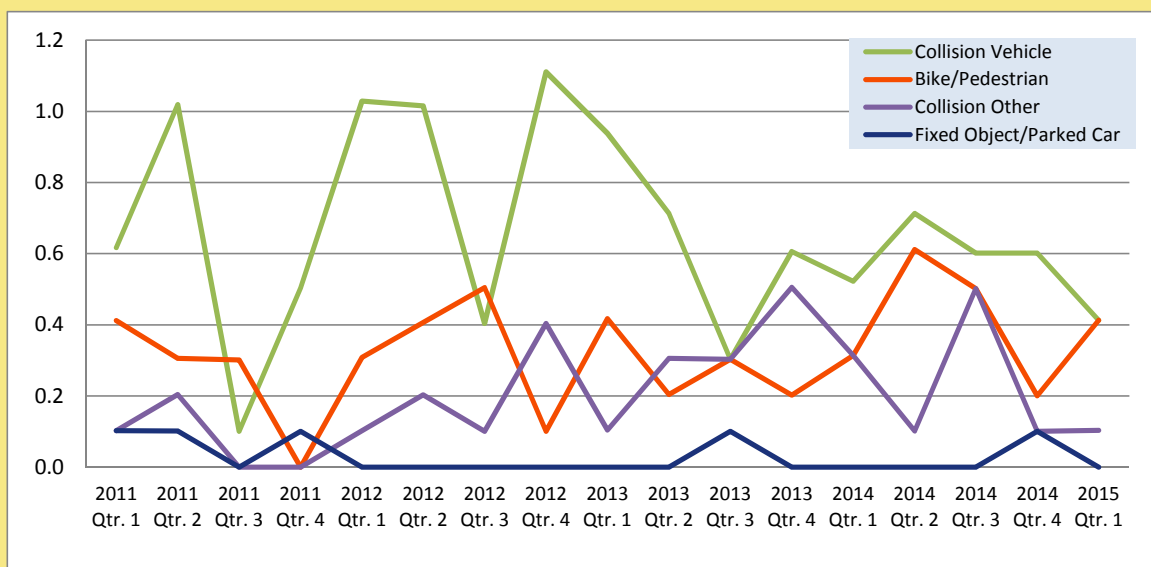
MAX Light Rail Collisions Per 100,000 Miles

	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 1</u>	<u>2015 - 2014</u> <u>Percent Change</u>
Total	0.93	1.00	1.15	-19.3%
Collision Vehicle	0.41	0.60	0.52	-21.1%
Fixed Object/Parked Car	-	0.10	-	0.0%
Bike/Pedestrian	0.41	0.20	0.31	31.6%
Collision Other	0.10	0.10	0.31	-67.1%

MAX Light Rail Collisions Per 100,000 Miles



MAX Collision Types Per 100,000 Boarding Rides

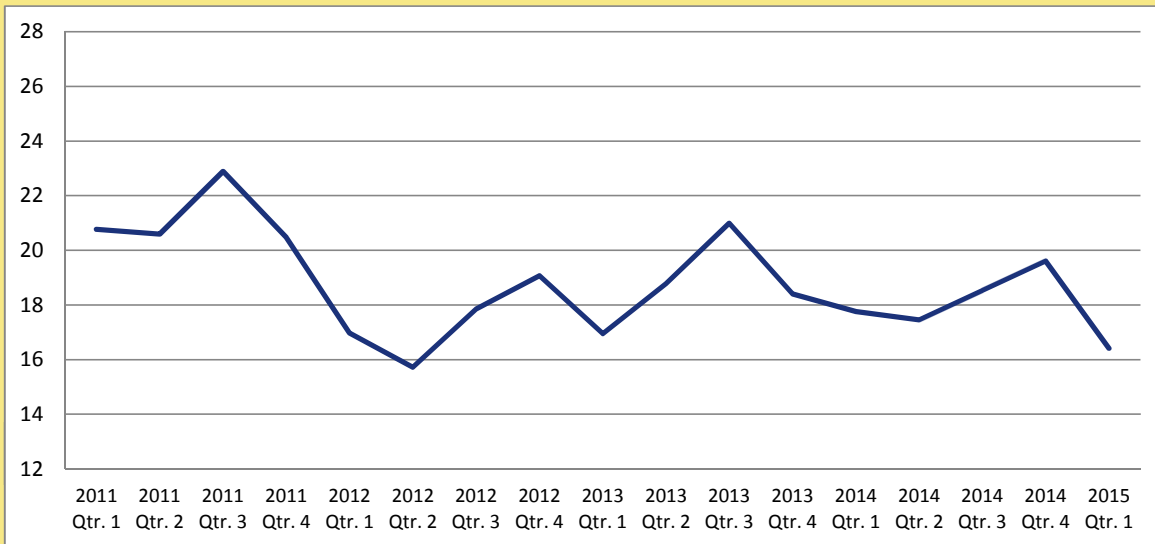


MAX Light Rail

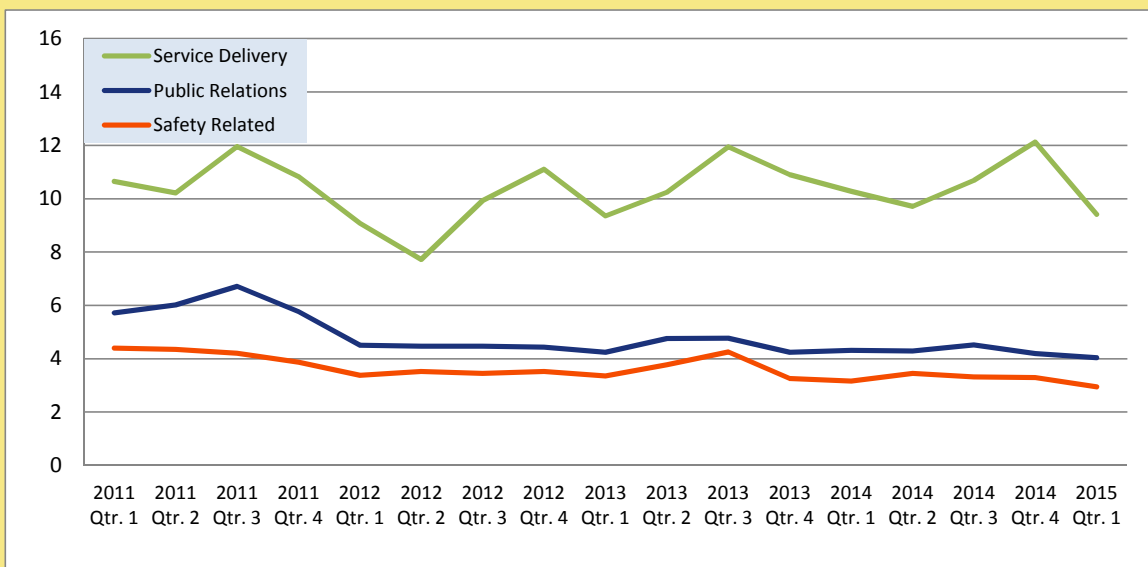
Fixed Route Bus Complaints Per 100,000 Boarding Rides

	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 1</u>	<u>2015 - 2014</u> <u>Percent Change</u>
Total	16.4	19.6	17.8	-7.6%
Service Delivery	9.4	12.1	10.3	-8.3%
Public Relations	4.0	4.2	4.3	-6.4%
Safety Related	3.0	3.3	3.2	-6.8%

Total Operator Complaints Per 100,000 Boarding Rides



Type of Operator Complaints Per 100,000 Boarding Rides

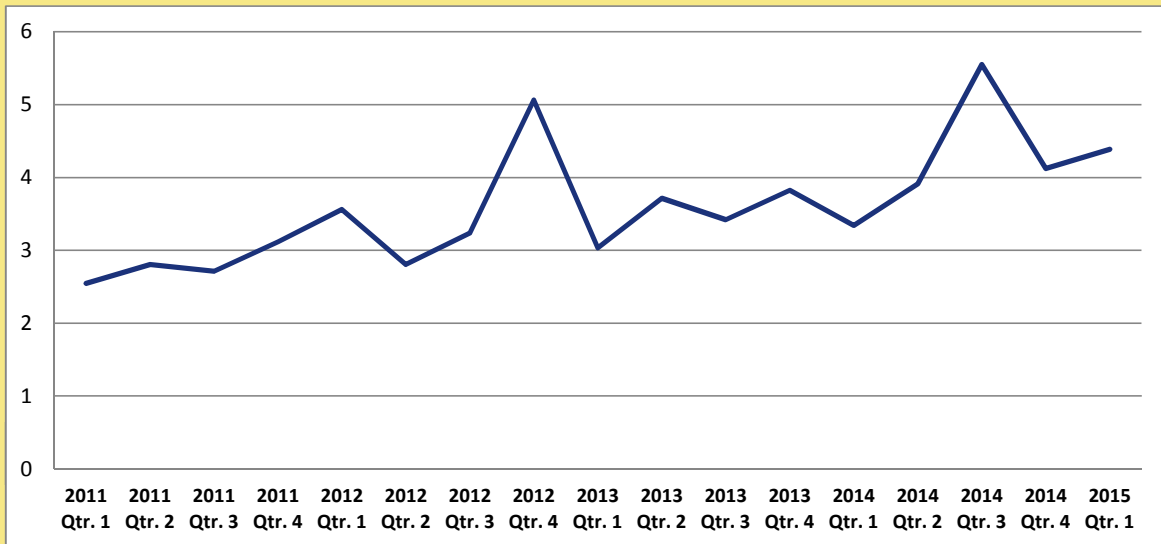


Fixed Route Bus

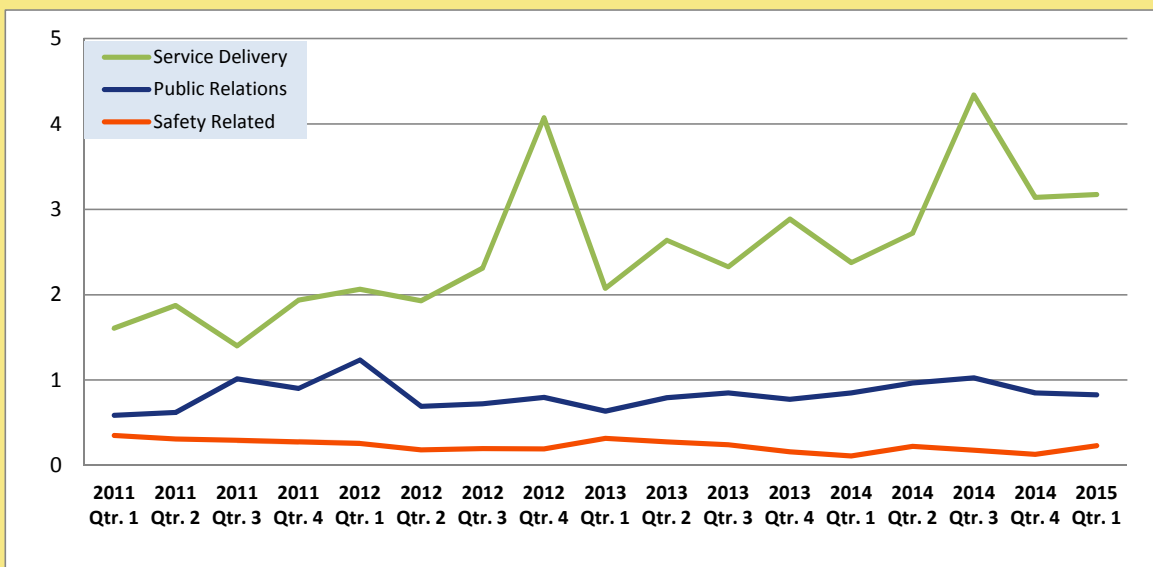
MAX Light Rail Complaints Per 100,000 Boarding Rides

	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 1</u>	<u>2015 - 2014</u> <u>Percent Change</u>
Total	4.4	4.1	3.3	31.4%
Service Delivery	3.2	3.1	2.4	33.5%
Public Relations	0.8	0.9	0.9	-2.9%
Safety Related	0.2	0.1	0.1	109.3%

Total Operator Complaints Per 100,000 Boarding Rides



Type of Operator Complaints Per 100,000 Boarding Rides

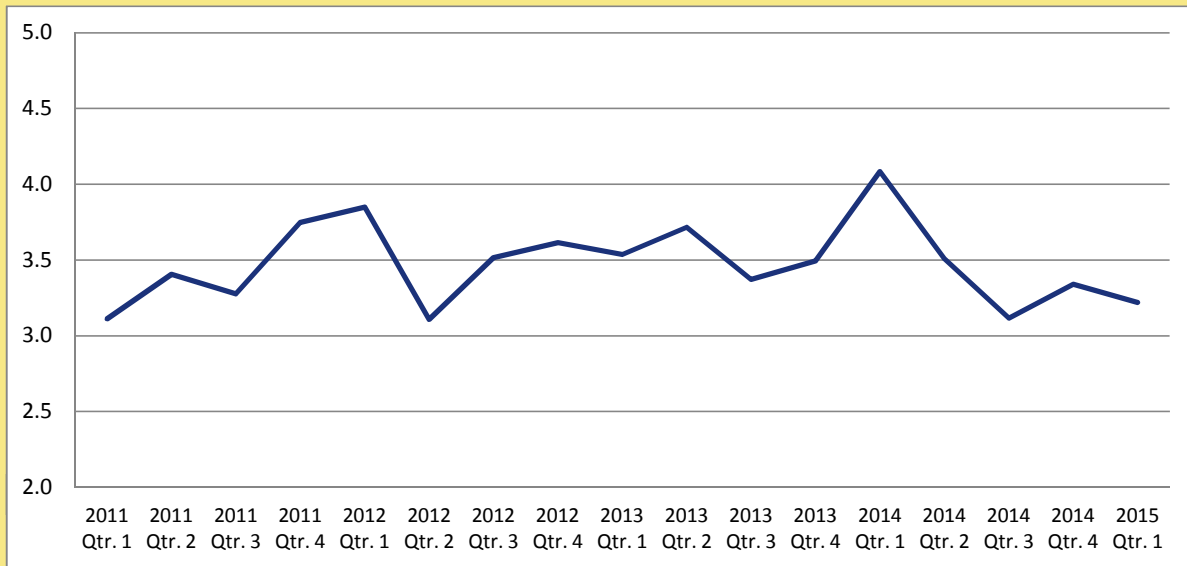


MAX Light Rail

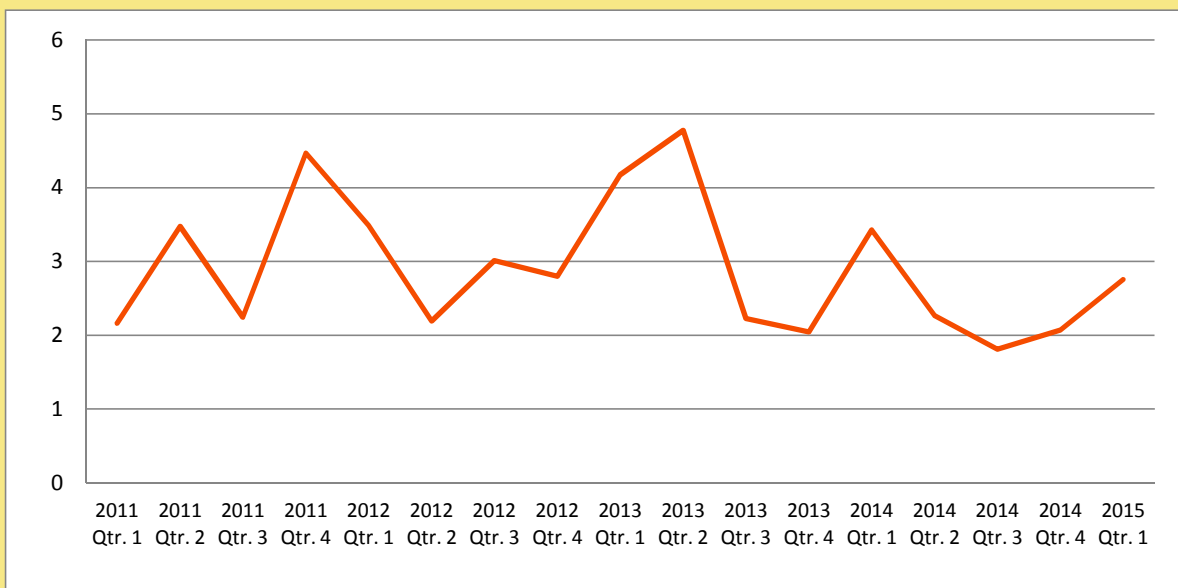
Fixed Route Bus and MAX Light Rail Commendations

	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 1</u>	<u>2015 - 2014 Percent Change</u>
Fixed Route Bus Per 100,000 Boardings	3.2	3.3	4.1	-21.2%
MAX Light Rail Per Million Boardings	2.8	2.1	3.4	-19.6%

Total Bus Operator Commendations Per 100,000 Boarding Rides



Total MAX Light Rail Commendations Per Million Boarding Rides



TriMet Bus and MAX Commendations