



High Quality Service through Continuous Improvement *2014 4th Quarter Performance Report*

TriMet Board Briefing March 25, 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 2014 4th Quarter. Significant improvement noted in Maintenance of Way, which had a 23.2% improvement over the 2013 4th Quarter.*
- *MAX Light Rail was down slightly from the 2013 4th Quarter in miles traveled between service related repairs but was improved over the 2014 3rd quarter. Bus declined from the 2013 4th Quarter by 11.0% in miles traveled between mechanical failures resulting in lost service. The decline in bus is largely due to the continuing "in-servicing" of new buses, which generally require a period of time for each new fleet to get the bugs out, so to speak, some of which require OEM warranty work.*
- *Maintenance attendance was slightly down from the 2013 4th 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.*

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 2013 4th Quarter by 1.2%. MAX and WES were slightly down from the 2013 4th Quarter, 3.2% and 3.3% respectively. A large number of rail operators are new to rail. As they gain experience operating in revenue service, the performance will improve. It should be noted that in the 2015 1st Quarter, MAX on time performance has improved as rail operators gain valuable “in-serve” experience. WES experienced a couple of significant service delays in the 2014 4th Quarter that slightly affected overall on time performance for the quarter.*
- *Transportation employee attendance declined by 0.8% from the 2013 4th Quarter. The decline is mostly attributable to higher than usual light rail operator sick leave in November and December.*
- *Bus and MAX boarding rides per revenue hour decreased from the 2013 4th Quarter, with bus posting a .04% loss and MAX and WES down by 2.5%, and 7.9% respectively. System-wide however, boarding rides were down by only 1.3 rides per revenue hour. Considering record low gasoline prices within this quarter, productivity remains at a high level overall.*

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.

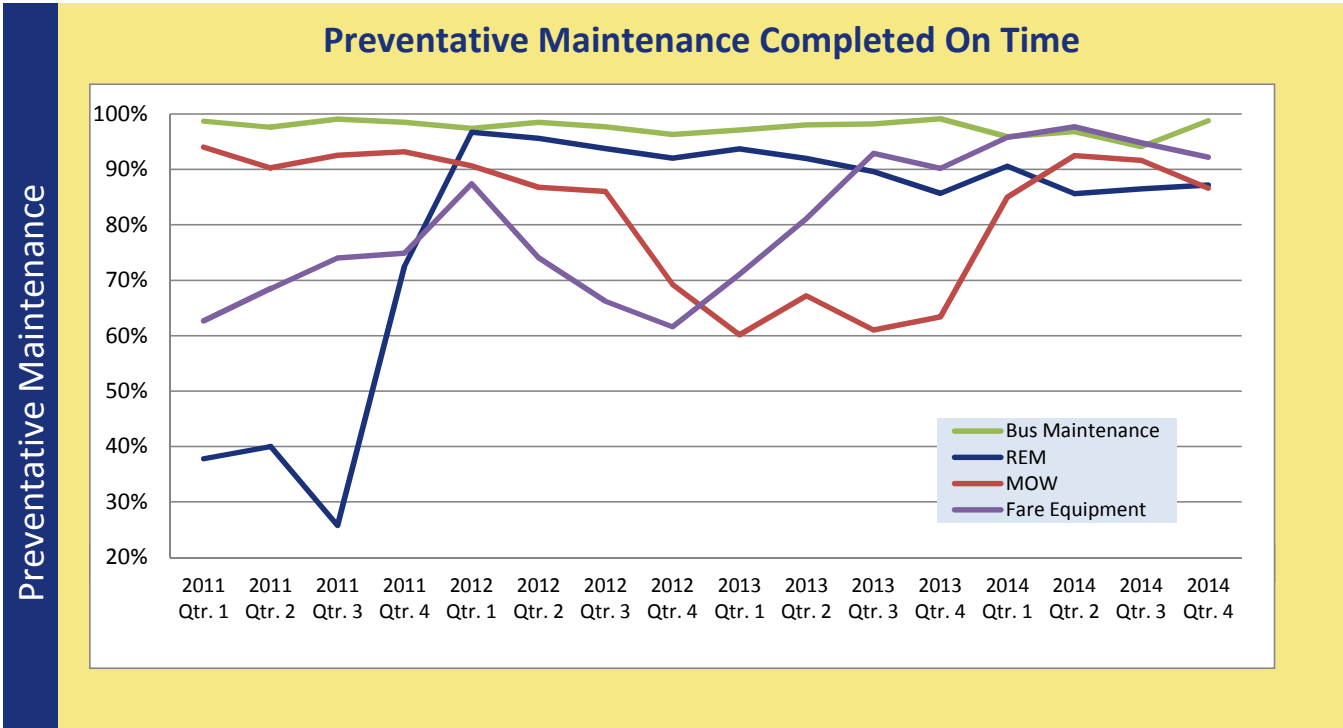
- *MAX light rail annual recertification in the 2014 4th quarter was well ahead of target and actually reached its objective in the 2015 1st Quarter. Bus operator annual recertification is advancing well and on target to achieve its objective as scheduled.*
- *Bus collisions per 100,000 miles increased by 0.50 collisions from 2.04 collisions in the 2013 4th Quarter to 2.54 in the 2014 4th Quarter. This reflects a large number of very new bus operators going into revenue service within this Quarter and a mild winter event in*

December. MAX collisions decreased from 1.31 collisions per 100,000 miles traveled in 2013 4th Quarter to 1.00 in 2014 4th Quarter.

- *Bus operator complaints per 100,000 boarding rides increased slightly from 18.4 in the 2013 4th Quarter to 19.6 in the 2014 4th Quarter, an increase of 1.2 complaints per 100,000 boarding rides. MAX operator complaints per 100,000 boarding rides increased very slightly from the 2013 4th Quarter by .03 complaints. Commendations for bus operators held mostly steady in the 2014 4th Quarter, but slightly down by .02 commendations per 100,000 boarding rides. MAX commendations per million boarding rides increased by 1.3% over the period.*

Preventative Maintenance Completed On Time

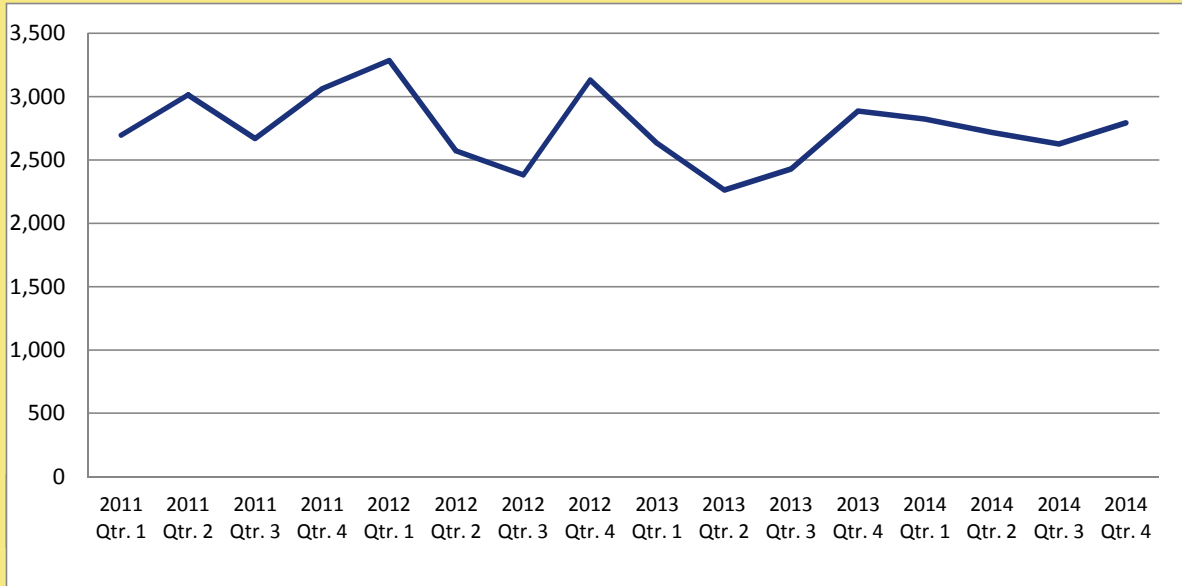
	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 3</u>	<u>2013 Qtr. 4</u>	<u>2014 - 2013</u> <u>Percent Pt. Change</u>
Bus Maintenance	98.8%	94.1%	99.1%	-0.3%
REM	87.2%	86.5%	85.7%	1.5%
MOW	86.6%	91.6%	63.4%	23.2%
Fare Equipment	92.2%	94.8%	90.2%	2.0%



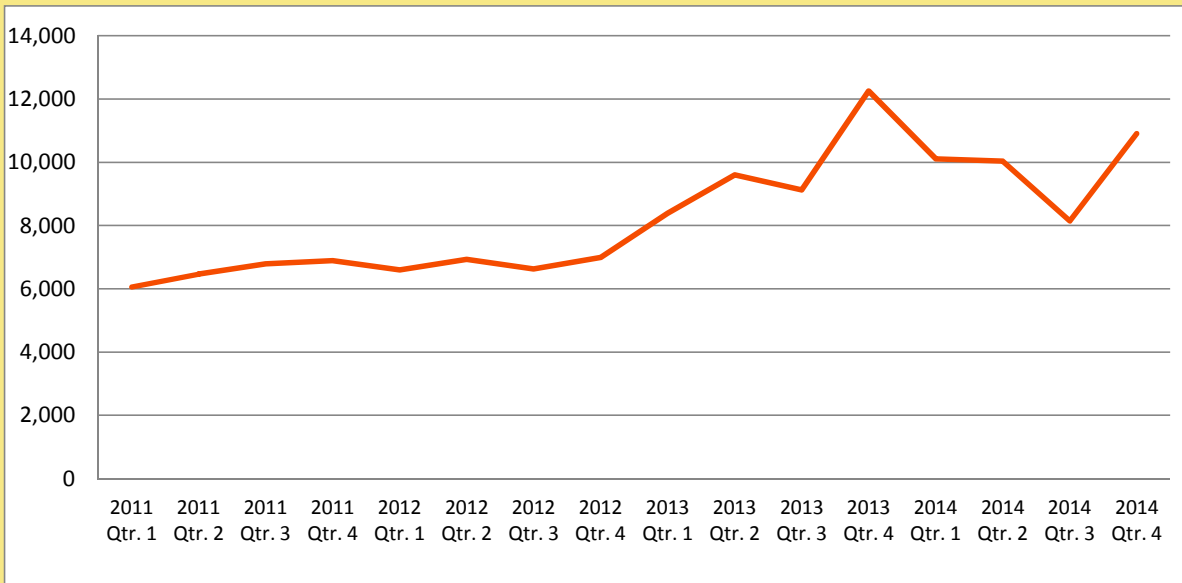
Mean Distance Between Failures (MDBF)

	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 3</u>	<u>2013 Qtr. 4</u>	<u>2014 - 2013 Percent Pt. Change</u>
MAX Light Rail	2,793	2,627	2,886	-3.2%
Fixed Route Bus	10,907	8,150	12,250	-11.0%

MAX Light Rail Car Miles / Service Related Repairs



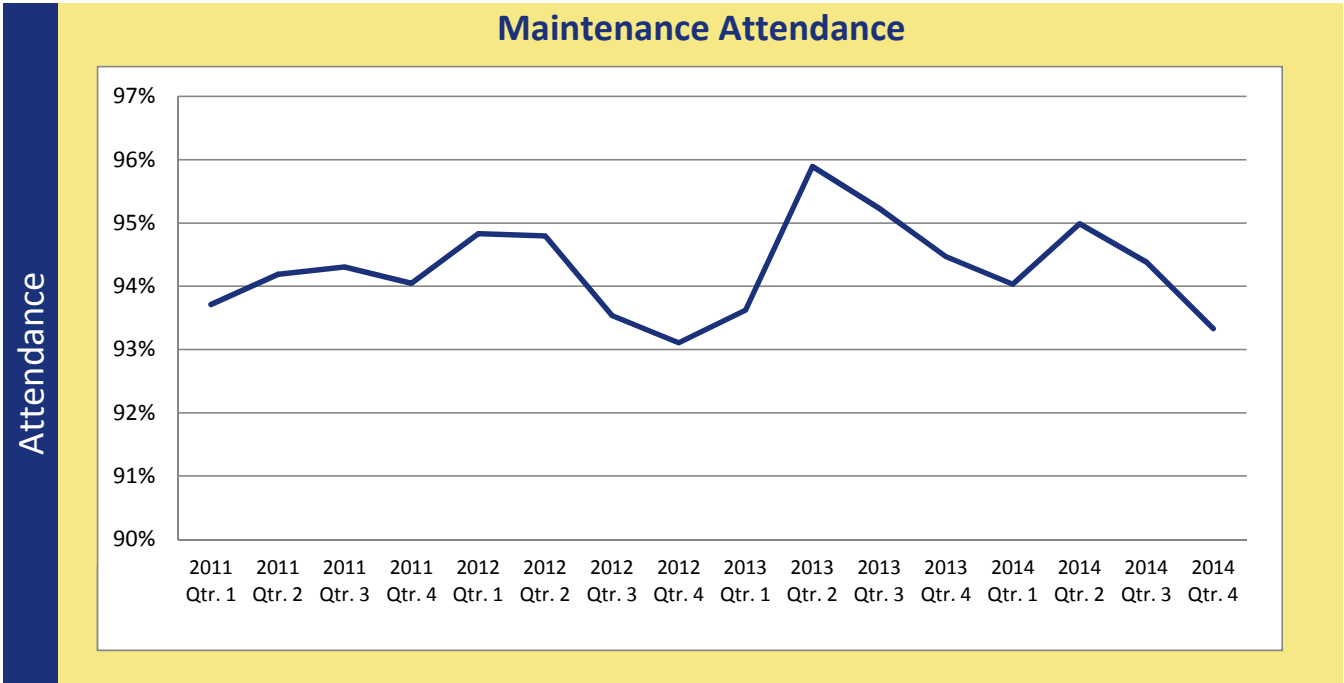
Fixed Route Bus Miles Between Mechanical Failures - Lost Service



Mean Distance Between Failures (MDBF)

Maintenance Employee Attendance

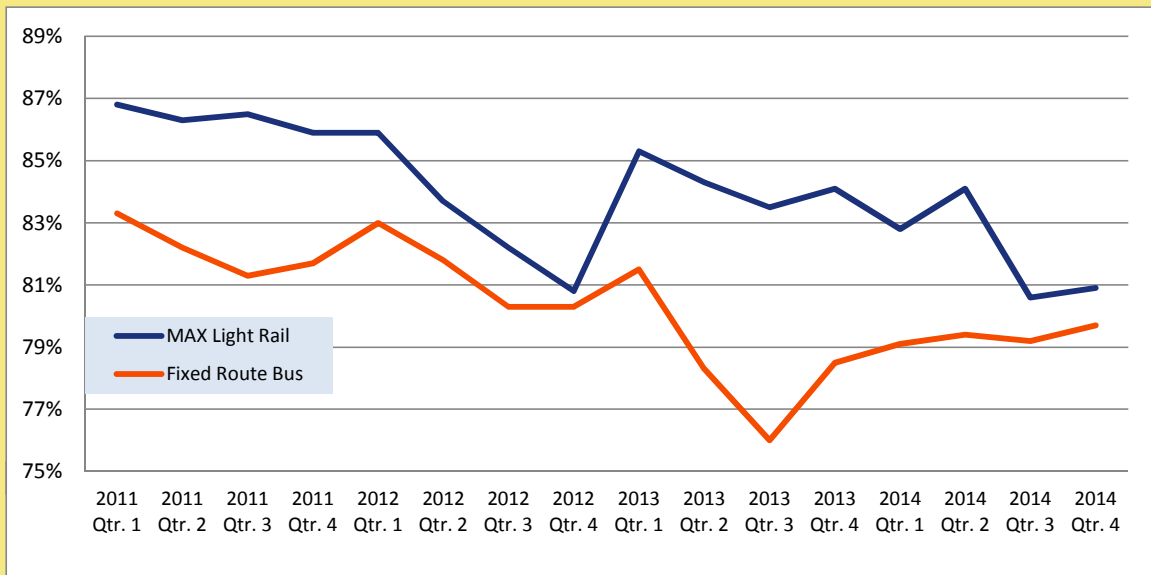
	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 3</u>	<u>2013 Qtr. 4</u>	<u>2014 - 2013</u> <u>Percent Pt. Change</u>
Maintenance	93.3%	94.4%	94.5%	-1.1%



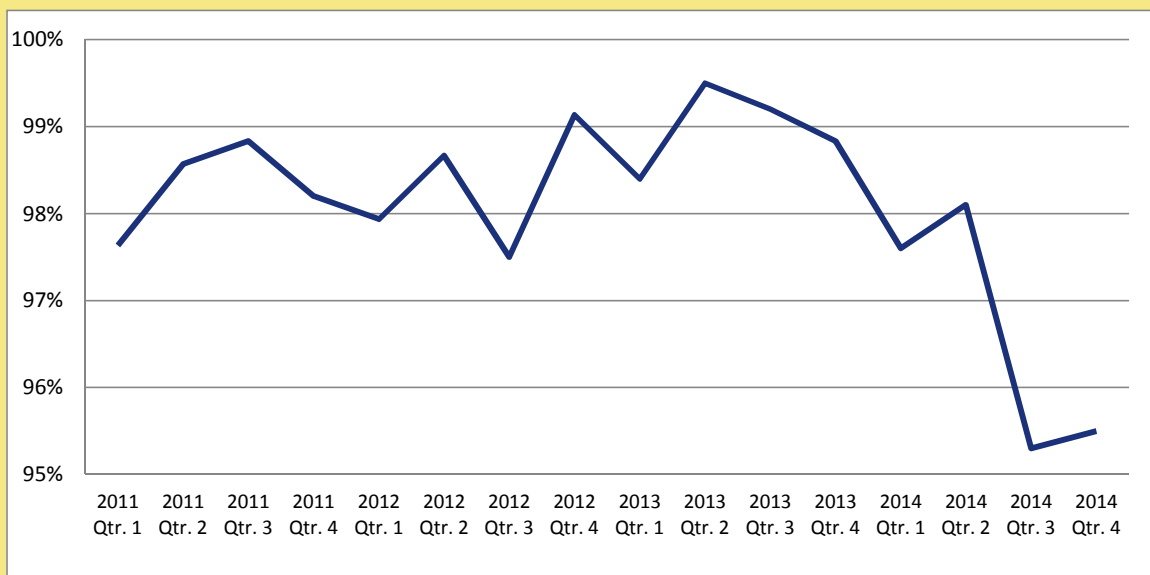
On Time Performance

	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 3</u>	<u>2013 Qtr. 4</u>	<u>2014 - 2013</u> <u>Percent Pt. Change</u>
Fixed Route Bus	79.7%	79.2%	78.5%	1.2%
MAX Light Rail	80.9%	80.6%	84.1%	-3.2%
WES Commuter Rail	95.5%	95.3%	98.8%	-3.3%

Bus and MAX Light Rail OTP



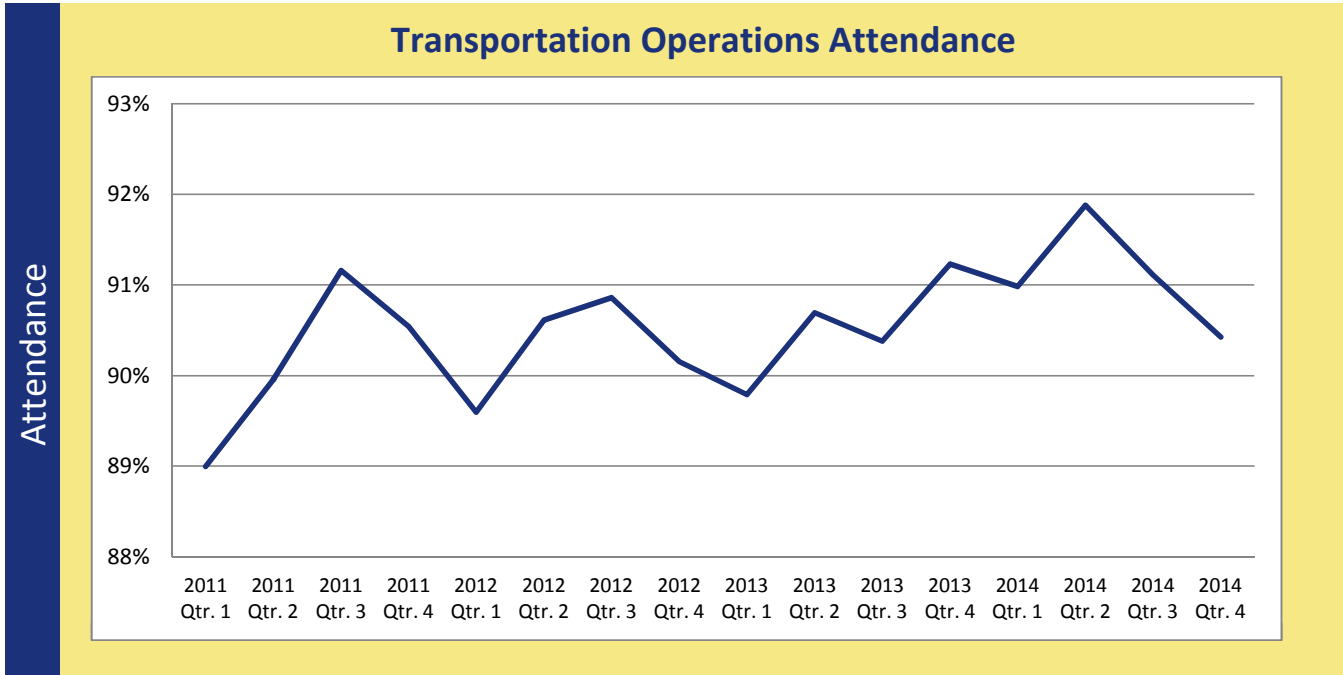
WES Commuter Rail OTP



On Time Performance

Transportation Operations Employee Attendance

	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 3</u>	<u>2013 Qtr. 4</u>	<u>2014 - 2013</u> <u>Percent Pt. Change</u>
TransOps	90.4%	91.1%	91.2%	-0.8%

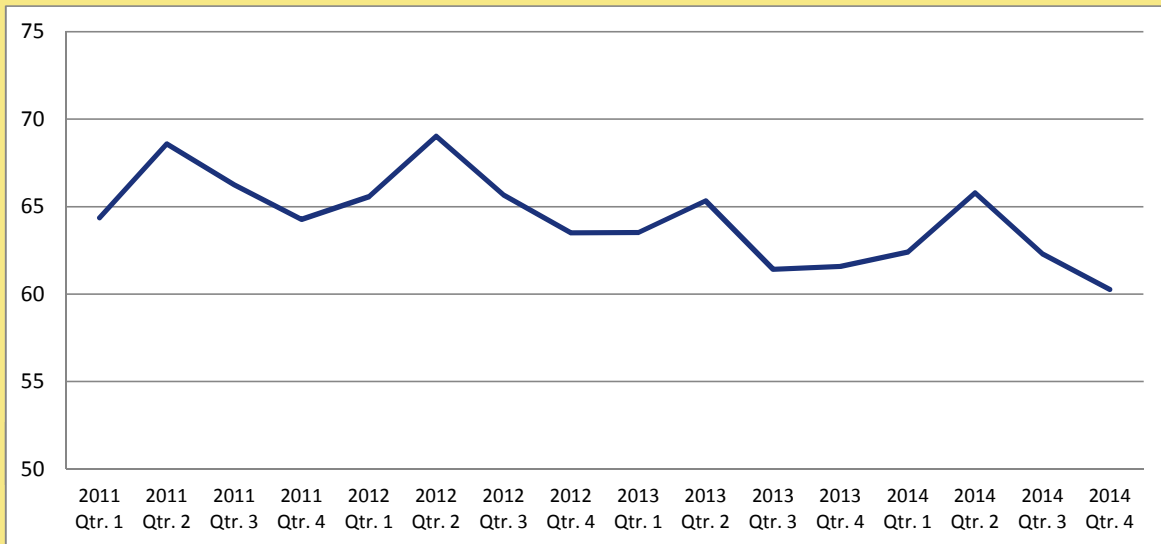


Boarding Rides Per Revenue Hour

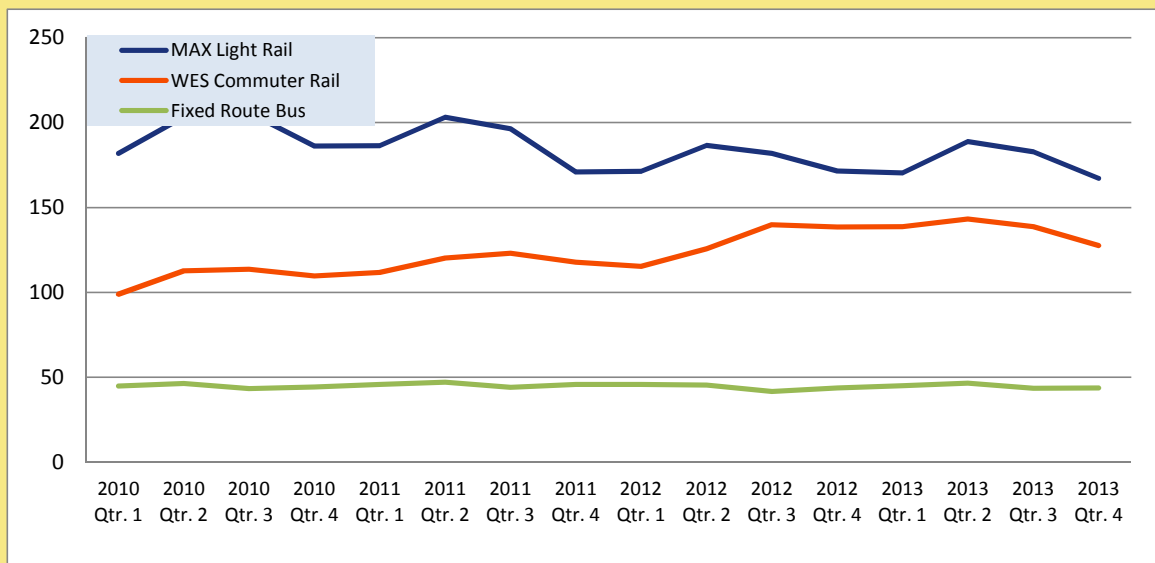
	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 3</u>	<u>2013 Qtr. 4</u>	<u>2014 - 2013</u> <u>Percent Change</u>
Total	60.3	62.3	61.6	-2.1%
Fixed Route Bus	43.6	43.6	43.8	-0.4%
MAX Light Rail	167.1	182.7	171.4	-2.5%
WES Commuter Rail	127.5	138.7	138.5	-7.9%

TriMet Boarding Rides Per Revenue Hour

Total Fixed Route Rides Per Revenue Hour



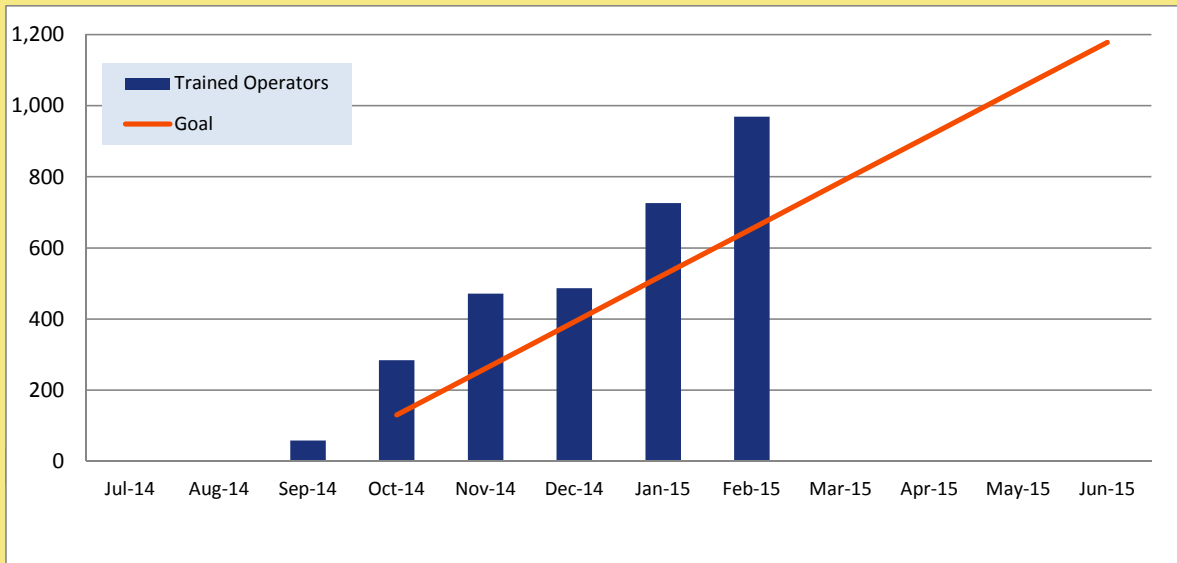
Rides Per Revenue Hour By Mode



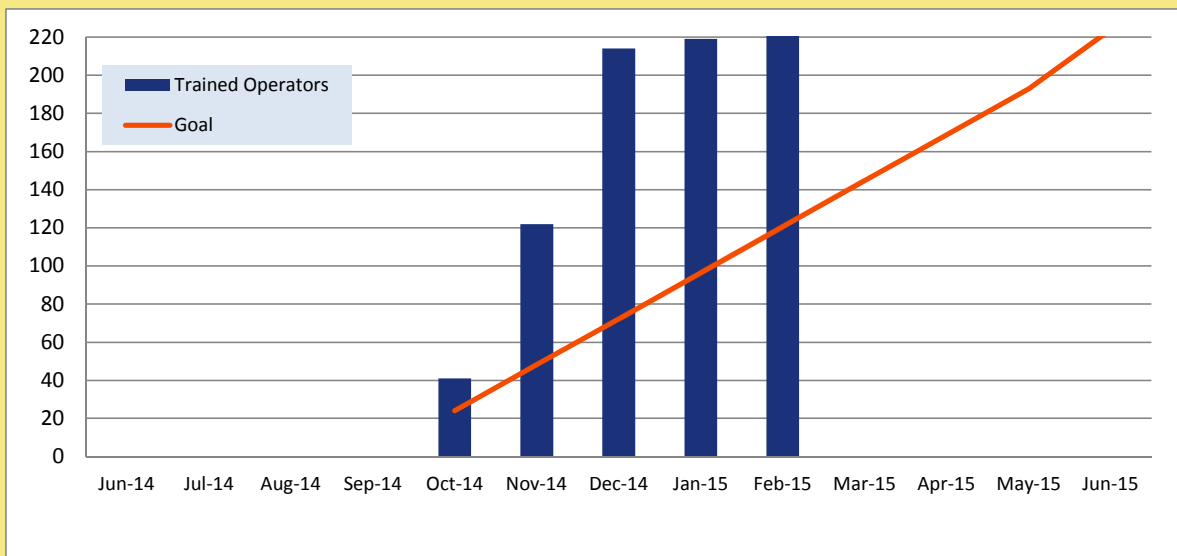
Annual Operator Recertification Training

	<u>Dec-14</u>	<u>Jan-15</u>	<u>Feb-15</u>	<u>Fiscal Year</u>
Bus Trained	487	726	969	
Cumulative Goal	393	524	654	1,178
MAX Trained	214	219	224	
Cumulative Goal	72	96	224	217

Bus Operator Annual Recertification - Actual to Goal



MAX Light Rail Annual Recertification - Actual to Goal

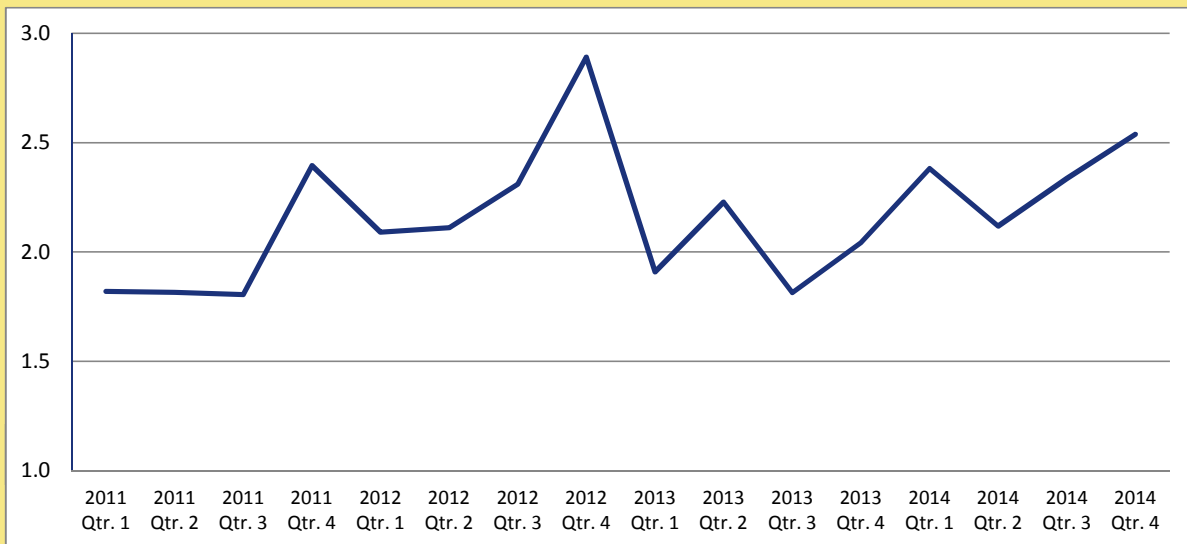


Operator Recertification Training

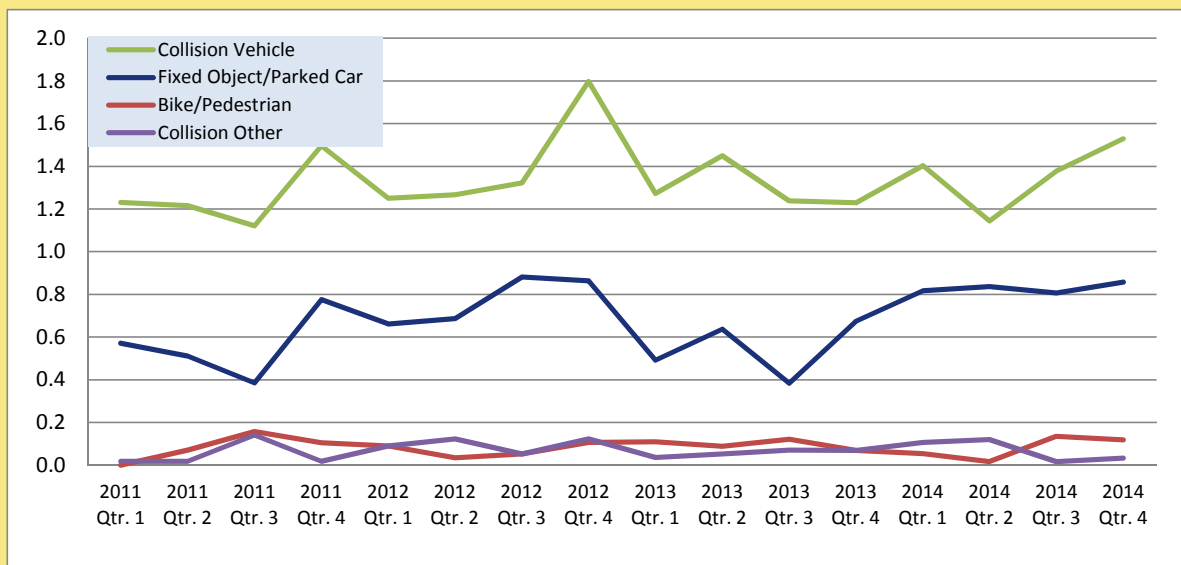
Fixed Route Bus Collisions Per 100,000 Miles

	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 3</u>	<u>2013 Qtr. 4</u>	<u>2014 - 2013 Percent Change</u>
Total	2.54	2.34	2.04	24.3%
Collision Vehicle	1.53	1.38	1.23	24.5%
Fixed Object/Parked Car	0.86	0.81	0.67	27.0%
Bike/Pedestrian	0.12	0.13	0.07	70.0%
Collision Other	0.03	0.02	0.07	-51.4%

Total Bus Collisions Per 100,000 Miles



Bus Collision Types Per 100,000 Boarding Rides

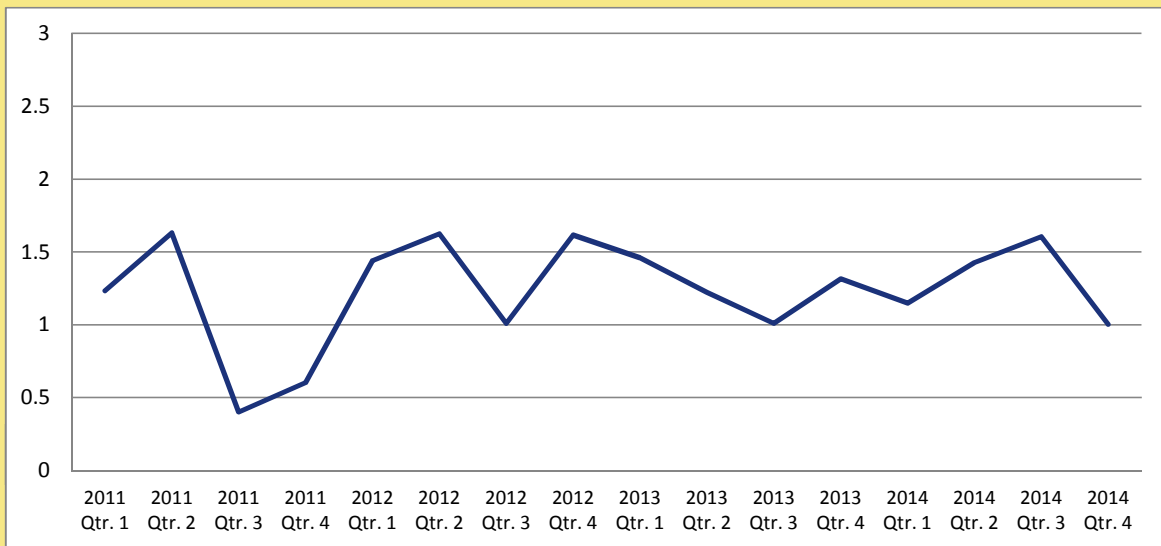


Fixed Route Bus

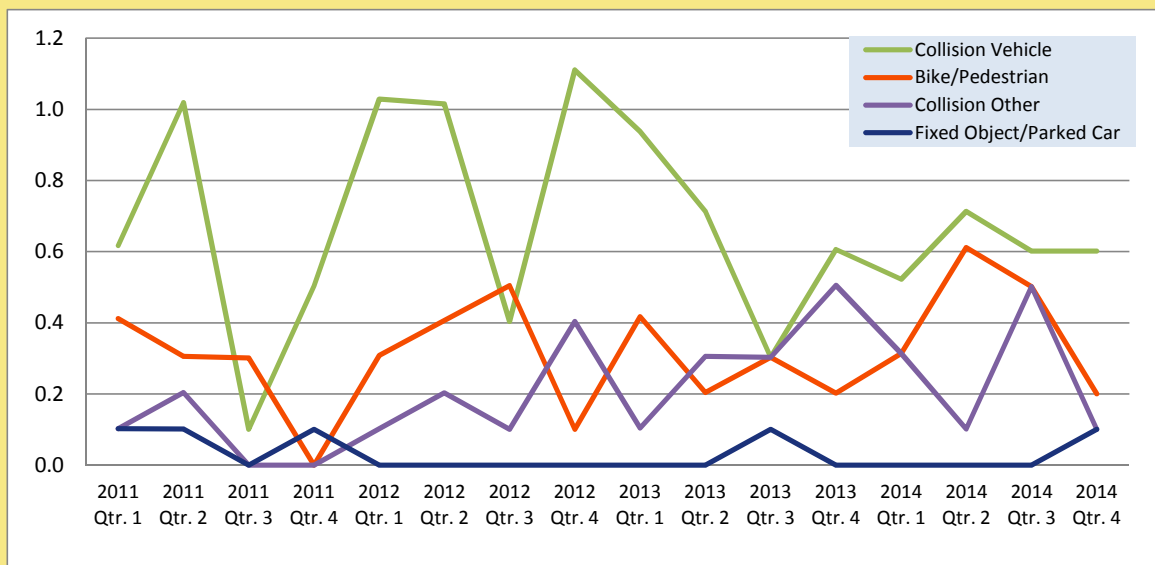
MAX Light Rail Collisions Per 100,000 Miles

	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 3</u>	<u>2013 Qtr. 4</u>	<u>2014 - 2013</u> <u>Percent Change</u>
Total	1.00	1.61	1.31	-23.7%
Collision Vehicle	0.60	0.60	0.61	-0.8%
Fixed Object/Parked Car	0.10	-	-	0.0%
Bike/Pedestrian	0.20	0.61	0.20	-0.8%
Collision Other	0.10	0.50	0.51	-80.2%

MAX Light Rail Collisions Per 100,000 Miles



MAX Collision Types Per 100,000 Boarding Rides

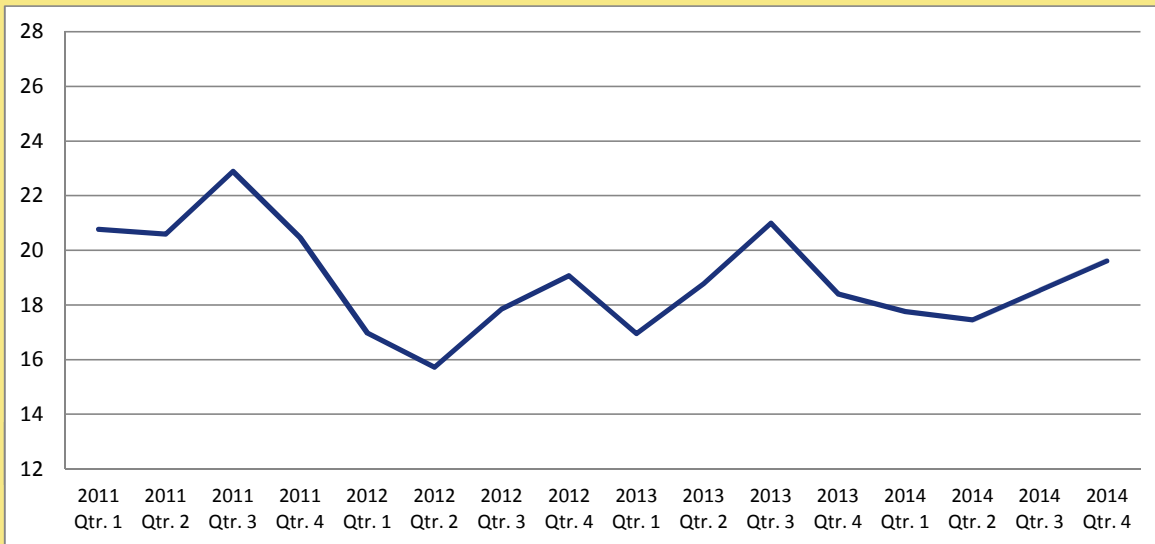


MAX Light Rail

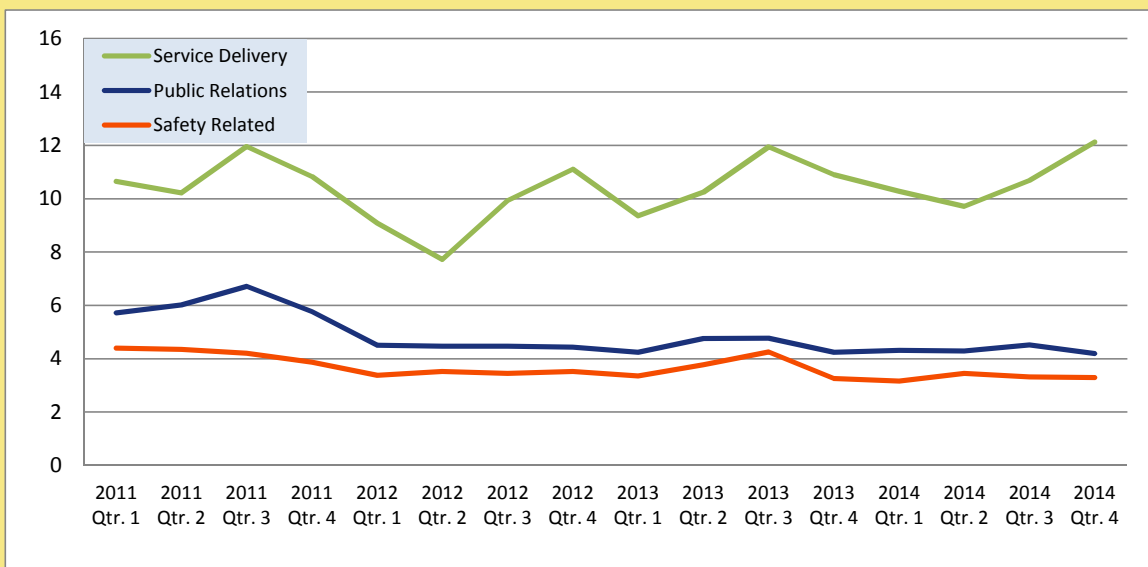
Fixed Route Bus Complaints Per 100,000 Boarding Rides

	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 3</u>	<u>2013 Qtr. 4</u>	<u>2014 - 2013</u> <u>Percent Change</u>
Total	19.6	18.5	18.4	6.5%
Service Delivery	12.1	10.7	10.9	11.3%
Public Relations	4.2	4.5	4.2	-1.2%
Safety Related	3.3	3.3	3.3	0.9%

Total Operator Complaints Per 100,000 Boarding Rides



Type of Operator Complaints Per 100,000 Boarding Rides

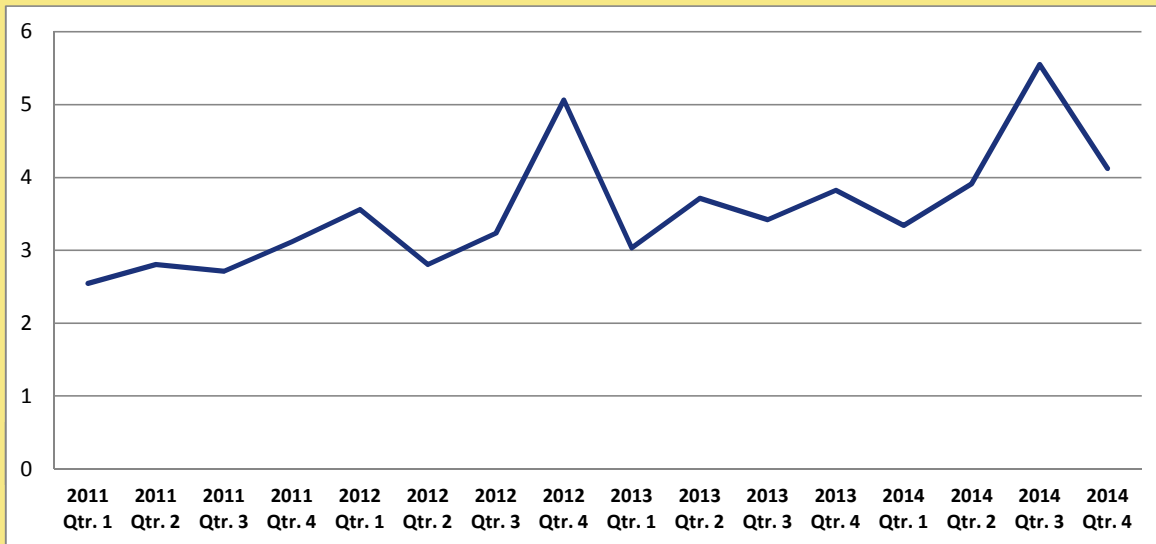


Fixed Route Bus

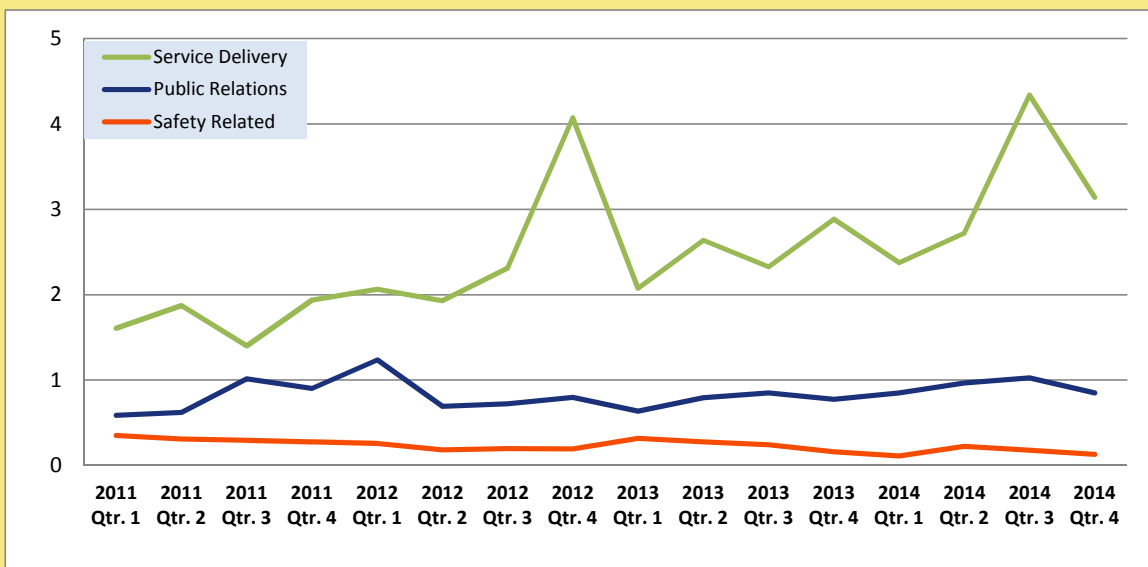
MAX Light Rail Complaints Per 100,000 Boarding Rides

	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 3</u>	<u>2013 Qtr. 4</u>	<u>2014 - 2013</u> <u>Percent Change</u>
Total	4.1	5.5	3.8	7.9%
Service Delivery	3.1	4.3	2.9	8.9%
Public Relations	0.9	1.0	0.8	9.7%
Safety Related	0.1	0.2	0.2	-19.0%

Total Operator Complaints Per 100,000 Boarding Rides



Type of Operator Complaints Per 100,000 Boarding Rides

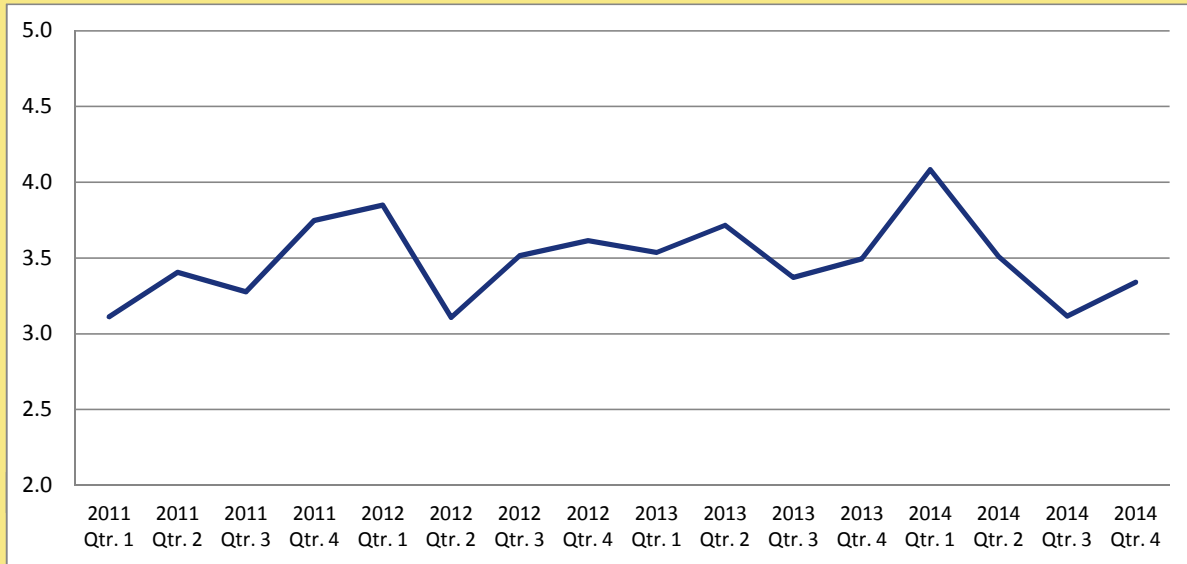


MAX Light Rail

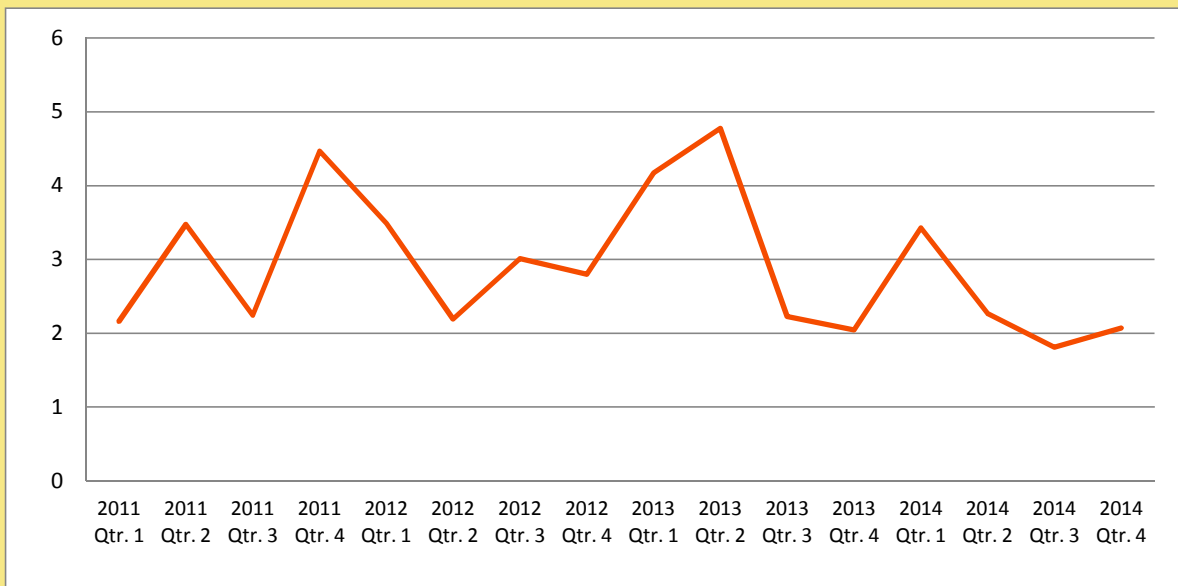
Fixed Route Bus and MAX Light Rail Commendations

	<u>2014 Qtr. 4</u>	<u>2014 Qtr. 3</u>	<u>2013 Qtr. 4</u>	<u>2014 - 2013 Percent Change</u>
Fixed Route Bus Per 100,000 Boardings	3.3	3.1	3.5	-4.4%
MAX Light Rail Per Million Boardings	2.1	1.8	2.0	1.3%

Total Bus Operator Commendations Per 100,000 Boarding Rides



Total MAX Light Rail Commendations Per Million Boarding Rides



TriMet Bus and MAX Commendations