



2015 2nd Quarter Report

Quarterly Performance Report



High Quality Service through Continuous Improvement

2015 2nd Quarter Performance Report

TriMet Board Briefing August 12, 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 2nd Quarter as set by the Federal Transit Administration. While these objectives were met, there were declines in preventive maintenance completed on time from the 2nd Quarter of the prior year for Rail Equipment Maintenance, Maintenance of Way and Fare Equipment maintenance. This was due to considerable training schedules over the Quarter in those disciplines related to familiarization with the new Orange Line equipment and mandated Federal Railroad Administration training required for the shared crossings with heavy rail along the Orange Line alignment.*
- *Similarly, MAX Light Rail and fixed route bus both improved in miles traveled between service related repairs over the 2014 2nd Quarter, with MAX Light Rail posting a 15.1% gain and fixed route bus improving by 23.5%*

- *Overall Maintenance attendance was slightly down from the 2014 2nd Quarter by 0.8%, but increased over the 2015 1st Quarter by 1.3%. Maintenance attendance remains essentially steady over the period.*

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 2nd Quarter by 1.4%. MAX on time performance declined by 4.0% from the 2014 2nd Quarter. This decrease in MAX on time performance is mostly attributable to many new light rail operators and rail controllers who continue to learn and refine their skills while operating in real time revenue service. Also contributing to the declines were exceptionally warmer temperatures in the latter part of the Quarter, which generally requires trains to operate at lower speeds due to safety concerns with possible sagging of the overhead wire and potential track movement caused by excessive heat. We also experienced an issue with the overhead wire in June that caused damage to a handful of pantographs that set on top of the light rail vehicles. Isolating the problem was complex and time-consuming and resulted in service delays. Finally; the new Type 5 light rail vehicles each need to accumulate 1,000 miles of “burn-in” on the alignments prior to being placed into revenue service. This “burn-in” process occurs late into the evening but also during daily revenue service, which can cause regular service trains to get off schedule from time to time. “Burn-in” trains are not used for scheduled service, but are interspersed between revenue service trains. WES Commuter Rail on time performance declined by 1.3% from the prior year 2nd Quarter, going from 98.1% to 96.8%*
- *Transportation employee attendance declined by 1.2% from the 2014 2nd Quarter, moving from 91.9% to 90.7%, but improved by 0.6% over the 2015 1st Quarter.*
- *System-wide boarding rides per revenue hour decreased by 4.5 boarding rides from the 2014 2nd Quarter. This reflects slight declines in ridership in the Quarter and the impact of restoring frequent service in the September 2014 service change and again in the March 2015 service change, each of which added service hours and capacity to the system, so that ridership is now spread over more service hours. The additional service hours, however, will provide for continued system-wide growth in the near term.*

3. Operator Support

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

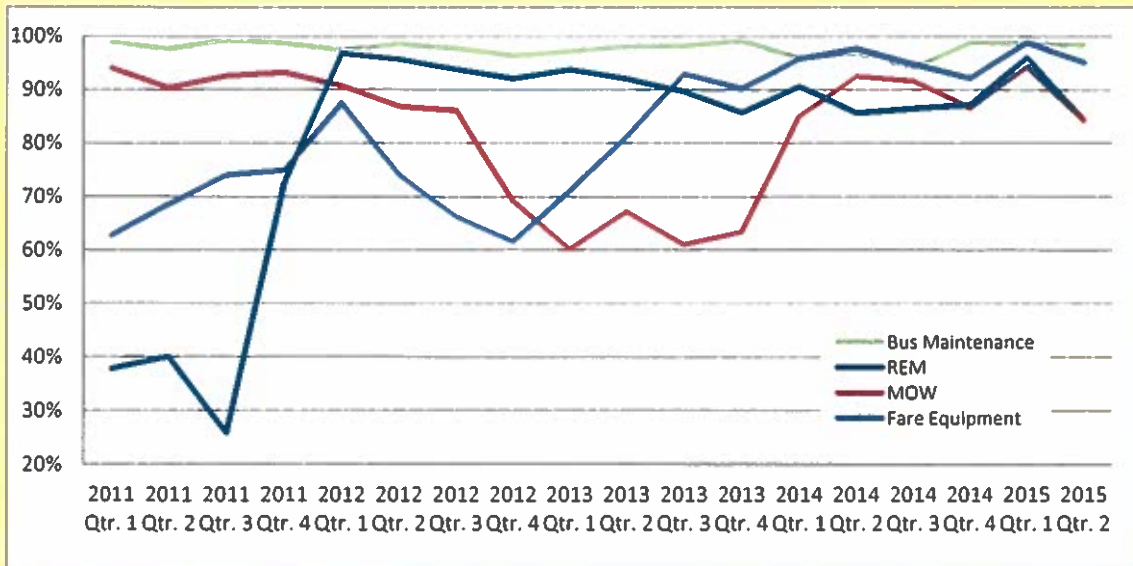
Key Performance Indicators: annual operator recertification training rate, collisions, complaints and commendations.

- ***Bus and MAX light rail operator annual training and recertification for Fiscal Year 2015 completed in March.***
- ***Bus collisions per 100,000 miles increased by 0.20 collisions in the 2015 2nd Quarter over the 2014 2nd Quarter. MAX light rail collisions per 100,000 miles traveled decreased by 0.54 collisions from the 2014 2nd Quarter, a 37.3% improvement.***
- ***Bus operator complaints per 100,000 boarding rides decreased from 17.5 in the 2014 2nd Quarter to 17.2 in the 2015 2nd Quarter. MAX operator complaints per 100,000 boarding rides increased by 0.90 complaints, going from 3.9 complaints per 100,000 boarding rides in the 2014 2nd Quarter to 4.8 in the 2015 2nd 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.***
- ***Commendations received for fixed route bus and MAX each increased over the 2014 2nd Quarter by 9.6% and 6.7% respectively.***

Preventative Maintenance Completed On Time

	<u>2015 Qtr. 2</u>	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 2</u>	<u>2015 - 2014</u> <u>Percent Pt. Change</u>
Bus Maintenance	98.4%	98.6%	95.9%	2.5%
REM	84.4%	96.0%	90.6%	-6.2%
MOW	84.3%	94.3%	85.0%	-0.7%
Fare Equipment	95.2%	98.8%	95.8%	-0.6%

Preventative Maintenance Completed On Time

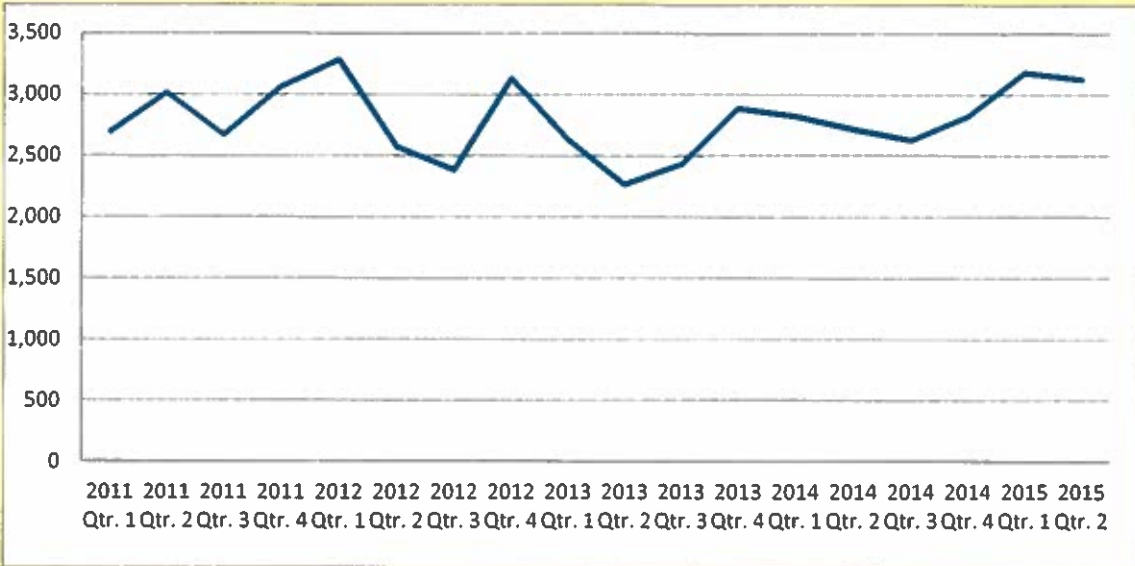


Preventative Maintenance

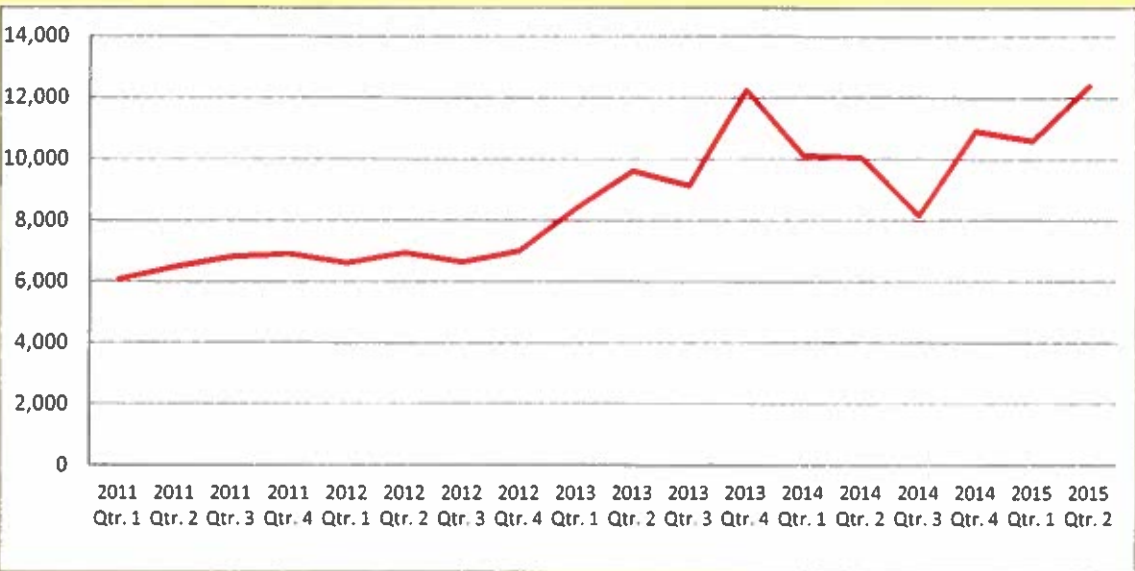
Mean Distance Between Failures (MDBF)

	<u>2015 Qtr. 2</u>	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 2</u>	<u>2015 - 2014 Percent Change</u>
MAX Light Rail	3,126	3,182	2,717	15.1%
Fixed Route Bus	12,394	10,590	10,036	23.5%

MAX Light Rail Car Miles / Service Related Repairs



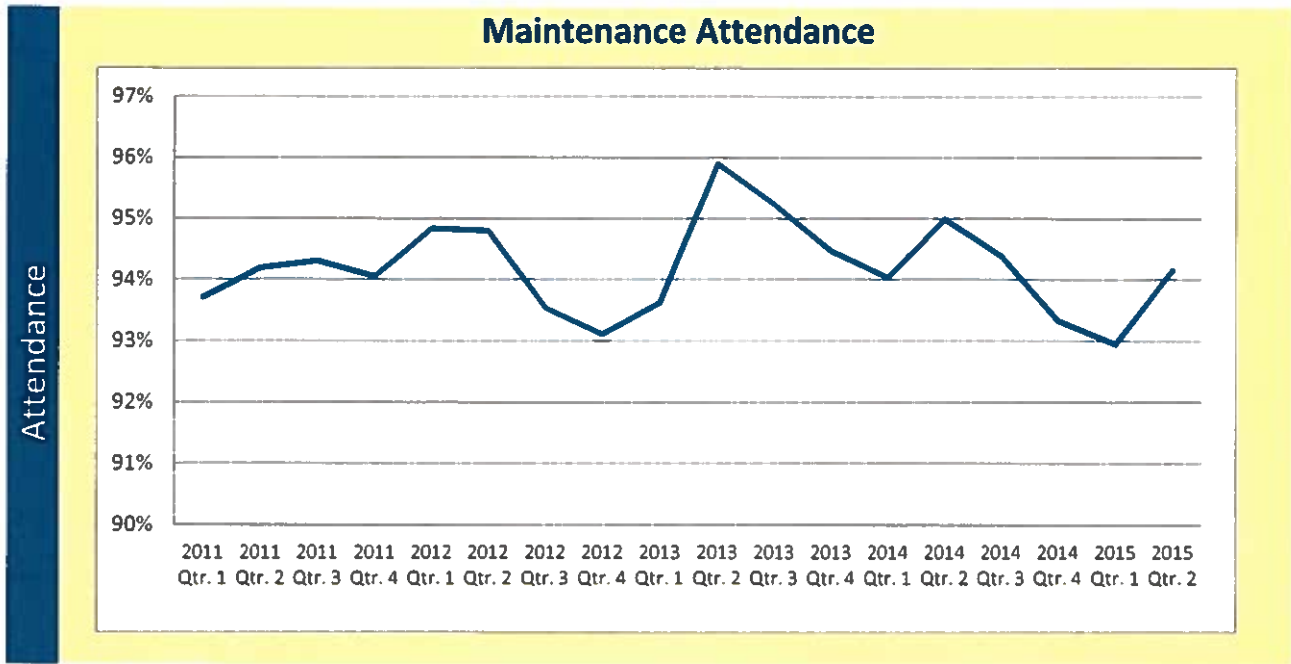
Fixed Route Bus Miles Between Mechanical Failures - Lost Service



Mean Distance Between Failures (MDBF)

Maintenance Employee Attendance

	<u>2015 Qtr. 2</u>	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 2</u>	<u>2015 - 2014</u> <u>Percent Pt. Change</u>
Maintenance	94.2%	92.9%	95.0%	-0.8%



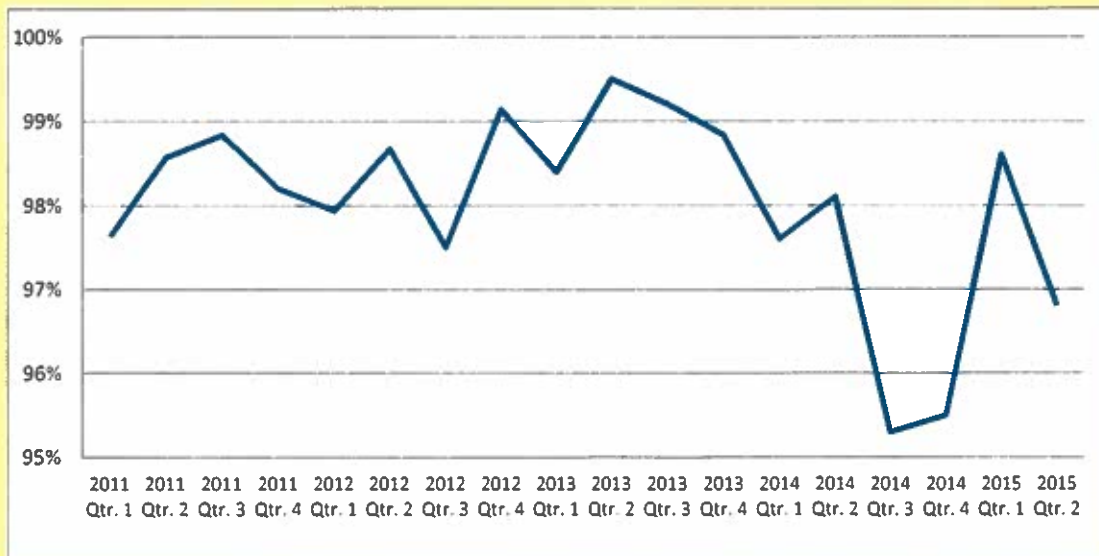
On Time Performance

	<u>2015 Qtr. 2</u>	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 2</u>	<u>2015 - 2014</u> <u>Percent Pt. Change</u>
Fixed Route Bus	80.8%	83.1%	79.4%	1.4%
MAX Light Rail	80.1%	81.7%	84.1%	-4.0%
WES Commuter Rail	96.8%	98.6%	98.1%	-1.3%

Bus and MAX Light Rail OTP



WES Commuter Rail OTP

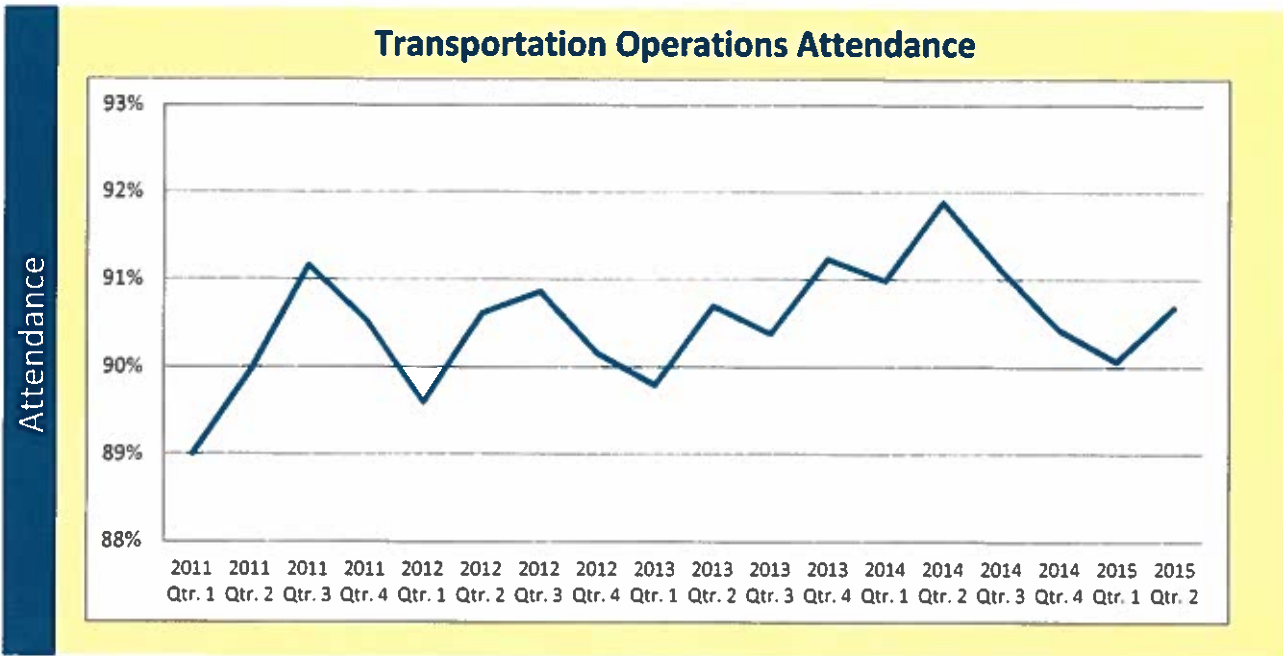


On Time Performance

Transportation Operations Employee Attendance

	<u>2015 Qtr. 2</u>	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 2</u>	<u>2015 - 2014</u> <u>Percent Pt. Change</u>
TransOps	90.7%	90.1%	91.9%	-1.2%

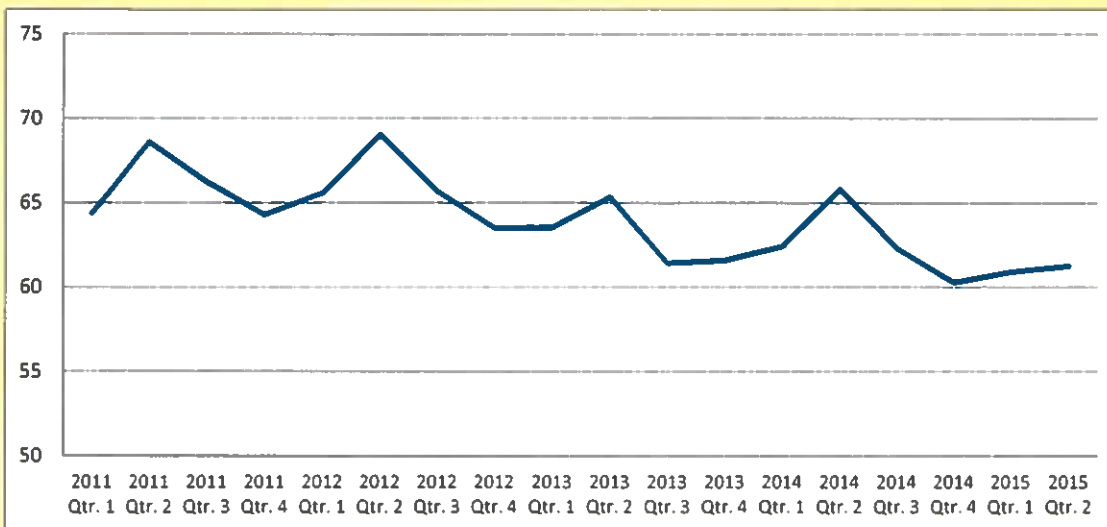
Transportation Operations Attendance



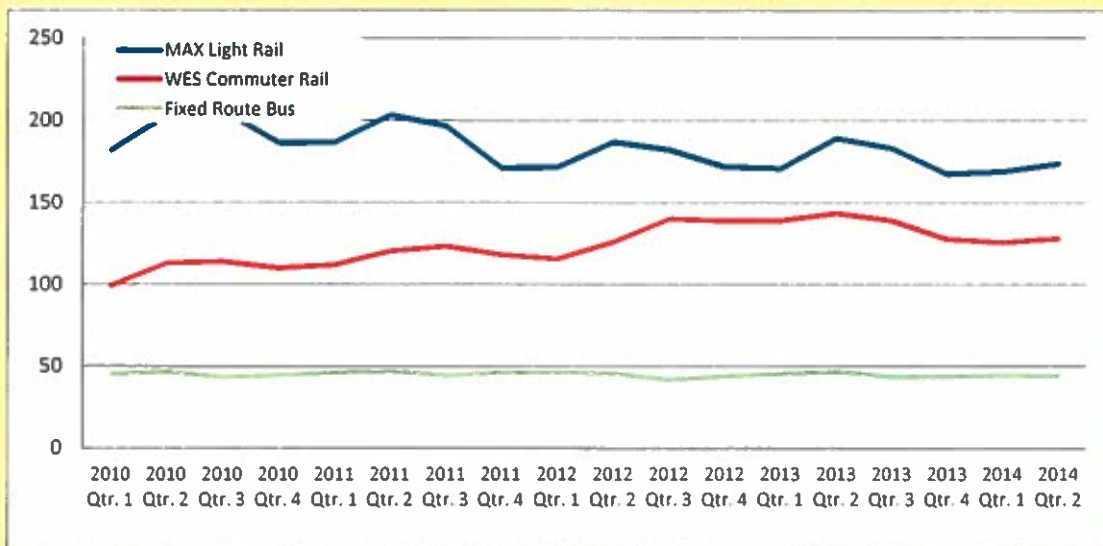
Boarding Rides Per Revenue Hour

	<u>2015 Qtr. 2</u>	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 2</u>	<u>2015 - 2014 Percent Change</u>
Total	61.3	60.9	65.8	-6.9%
Fixed Route Bus	44.0	44.2	46.5	-5.4%
MAX Light Rail	173.4	168.7	188.8	-8.2%
WES Commuter Rail	127.9	125.5	143.2	-10.7%

Total Fixed Route Rides Per Revenue Hour



Rides Per Revenue Hour By Mode

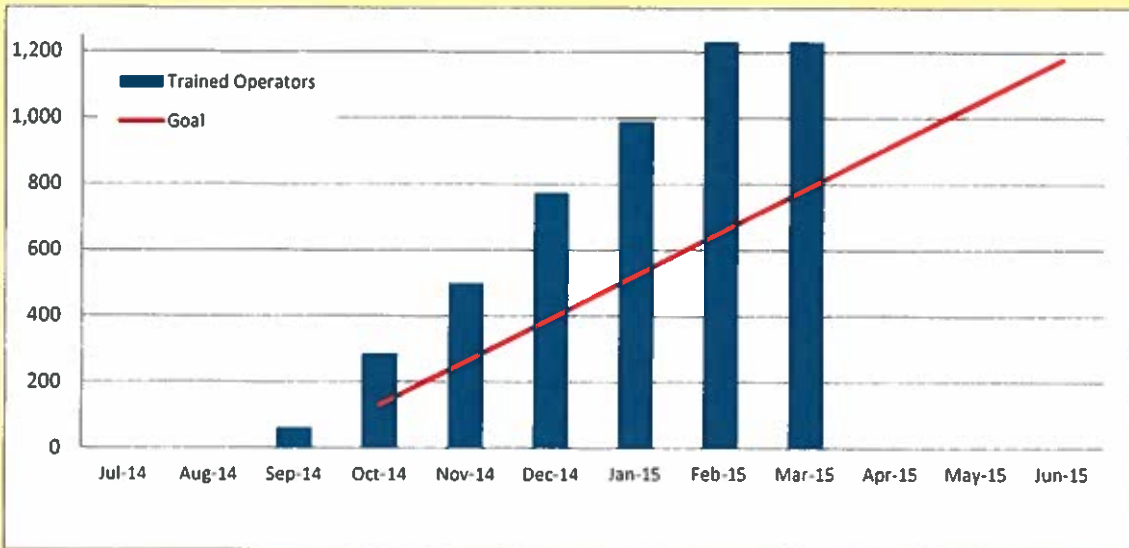


TriMet Boarding Rides Per Revenue Hour

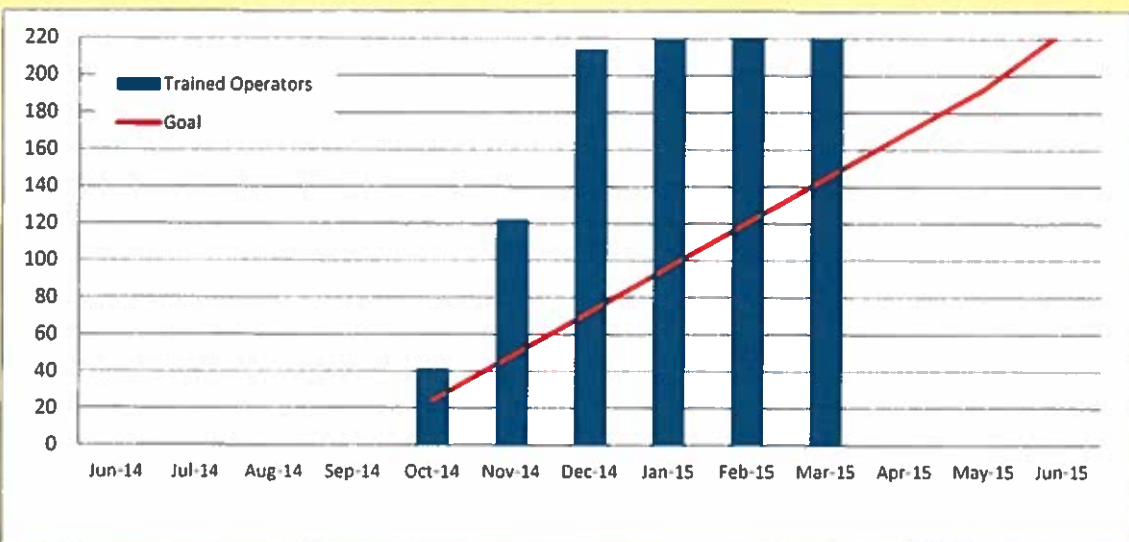
Annual Operator Recertification Training

	<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

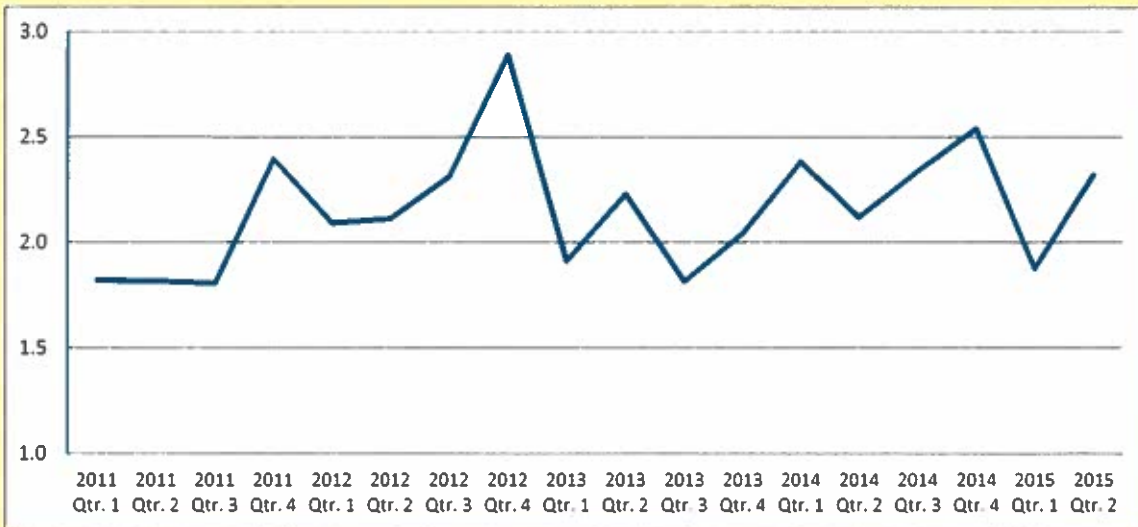


Operator Recertification Training

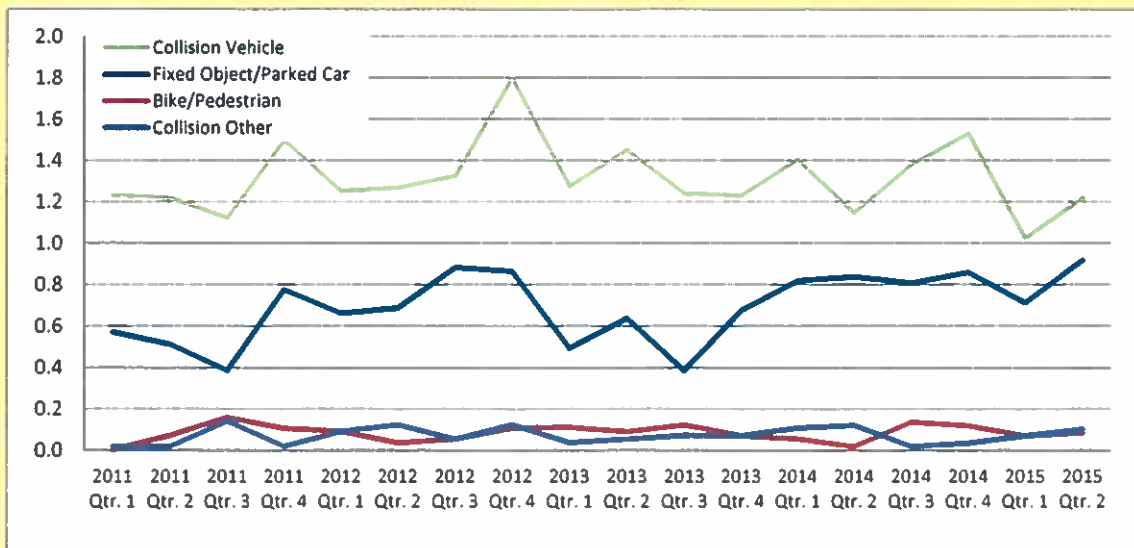
Fixed Route Bus Collisions Per 100,000 Miles

	<u>2015 Qtr. 2</u>	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 2</u>	<u>2015 - 2014 Percent Change</u>
Total	2.32	1.87	2.12	9.5%
Collision Vehicle	1.22	1.02	1.14	6.4%
Fixed Object/Parked Car	0.92	0.71	0.84	9.6%
Bike/Pedestrian	0.08	0.07	0.02	388.4%
Collision Other	0.10	0.07	0.12	-16.3%

Total Bus Collisions Per 100,000 Miles



Bus Collision Types Per 100,000 Boarding Rides

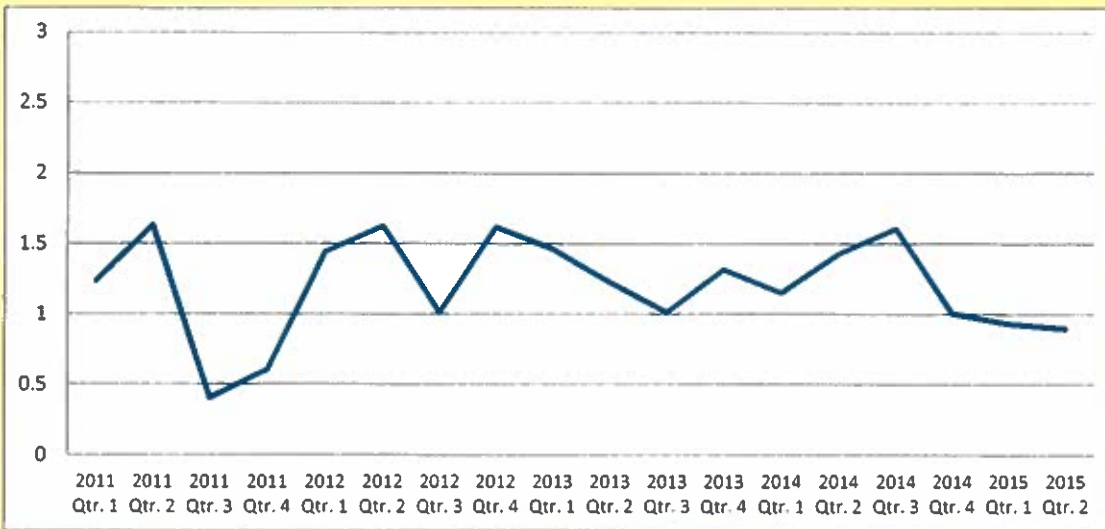


Fixed Route Bus

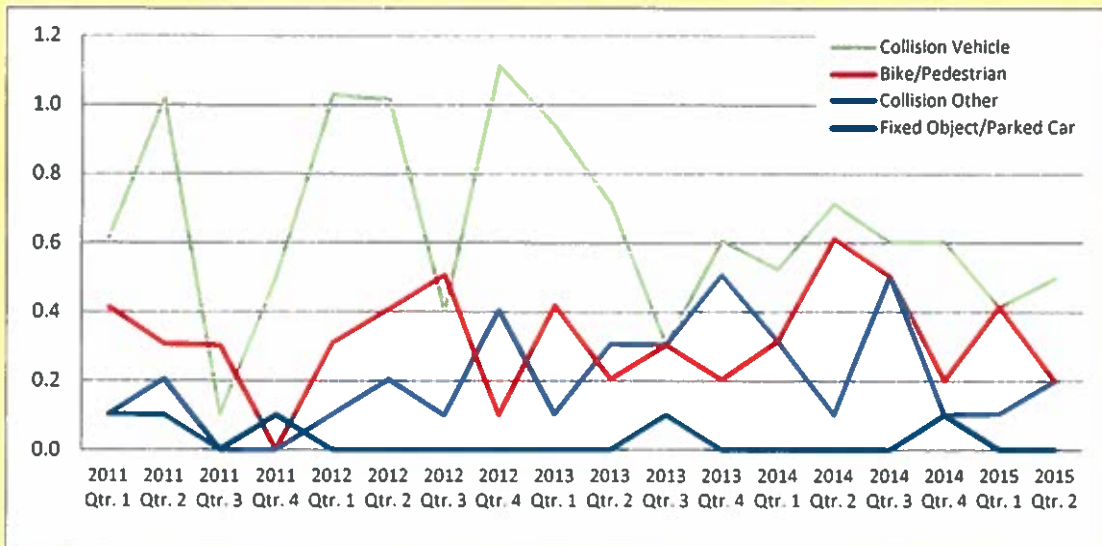
MAX Light Rail Collisions Per 100,000 Miles

	<u>2015 Qtr. 2</u>	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 2</u>	<u>2015 - 2014 Percent Change</u>
Total	0.89	0.93	1.43	-37.3%
Collision Vehicle	0.50	0.41	0.71	-30.3%
Fixed Object/Parked Car	-	-	-	0.0%
Bike/Pedestrian	0.20	0.41	0.61	-67.5%
Collision Other	0.20	0.10	0.10	95.1%

MAX Light Rail Collisions Per 100,000 Miles



MAX Collision Types Per 100,000 Boarding Rides

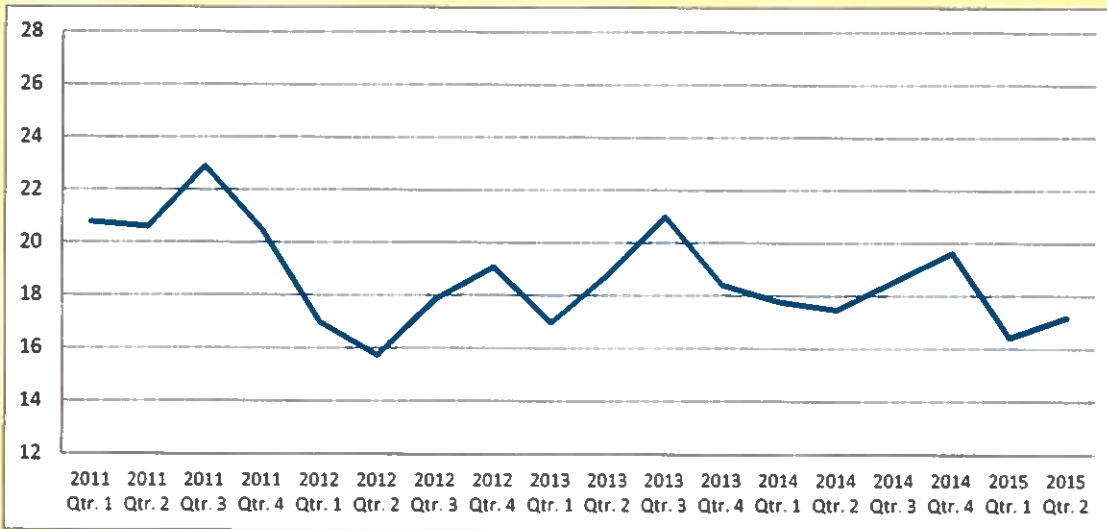


MAX Light Rail

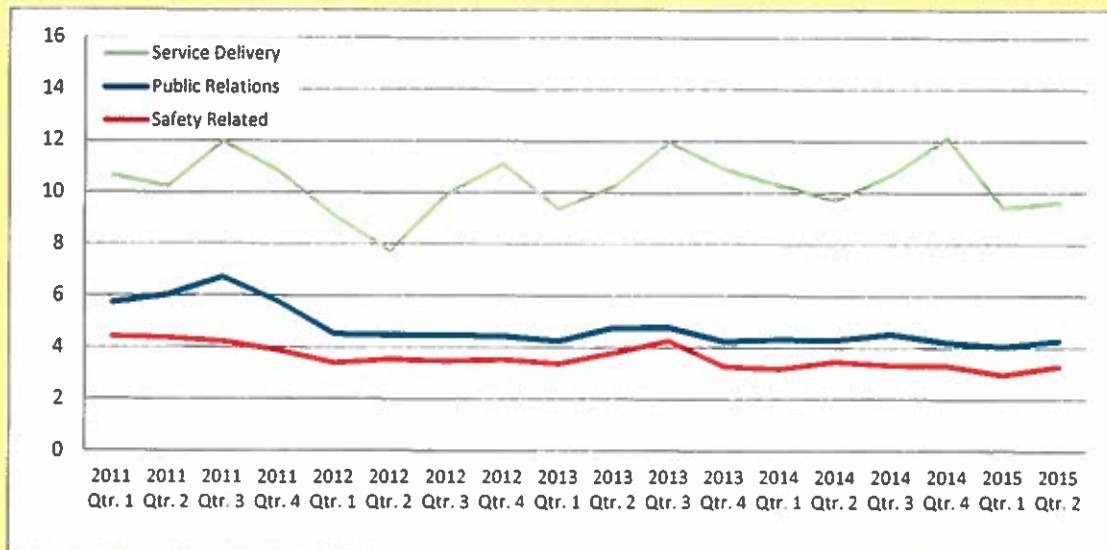
Fixed Route Bus Complaints Per 100,000 Boarding Rides

	<u>2015 Qtr. 2</u>	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 2</u>	<u>2015 - 2014 Percent Change</u>
Total	17.2	16.4	17.5	-1.6%
Service Delivery	9.6	9.4	9.7	-0.8%
Public Relations	4.3	4.0	4.3	-0.4%
Safety Related	3.3	3.0	3.5	-5.4%

Total Operator Complaints Per 100,000 Boarding Rides



Type of Operator Complaints Per 100,000 Boarding Rides

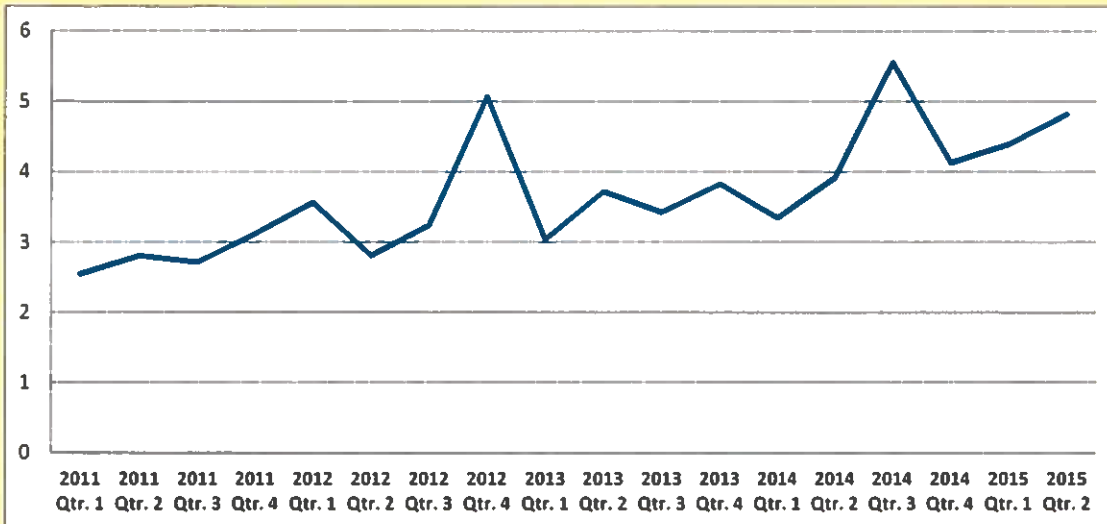


Fixed Route Bus

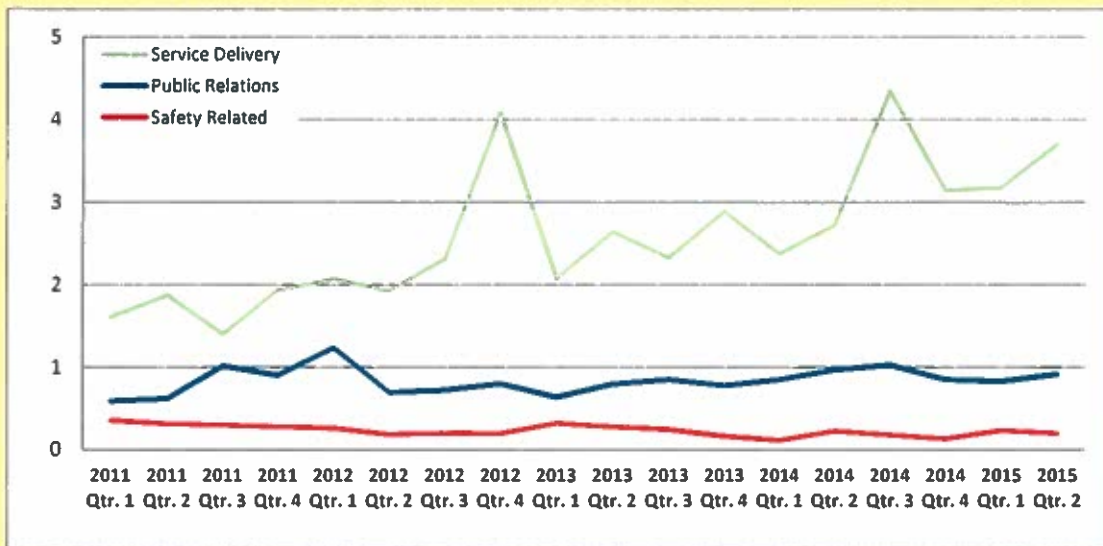
MAX Light Rail Complaints Per 100,000 Boarding Rides

	<u>2015 Qtr. 2</u>	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 2</u>	<u>2015 - 2014 Percent Change</u>
Total	4.8	4.4	3.9	23.0%
Service Delivery	3.7	3.2	2.7	36.0%
Public Relations	0.9	0.8	1.0	-5.3%
Safety Related	0.2	0.2	0.2	-11.9%

Total Operator Complaints Per 100,000 Boarding Rides



Type of Operator Complaints Per 100,000 Boarding Rides



MAX Light Rail

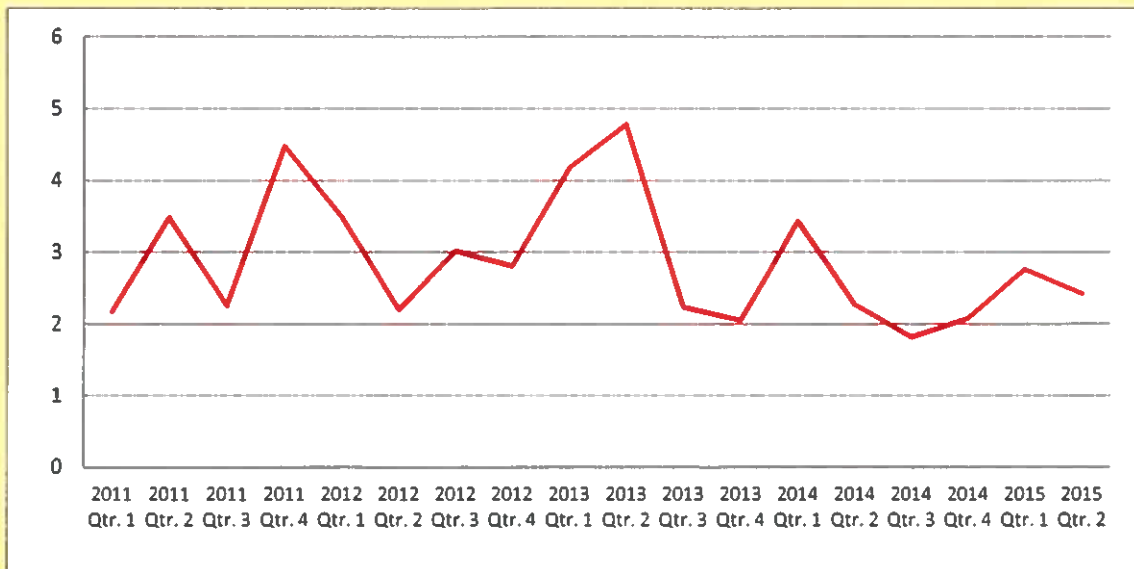
Fixed Route Bus and MAX Light Rail Commendations

	<u>2015 Qtr. 2</u>	<u>2015 Qtr. 1</u>	<u>2014 Qtr. 2</u>	<u>2015 - 2014 Percent Change</u>
Fixed Route Bus Per 100,000 Boardings	3.8	3.2	3.5	9.6%
MAX Light Rail Per Million Boardings	2.4	2.8	2.3	6.7%

Total Bus Operator Commendations Per 100,000 Boarding Rides



Total MAX Light Rail Commendations Per Million Boarding Rides



TriMet Bus and MAX Commendations