Agenda Item 166 - Streetcar Report - Comments

R A Fontes - PO Box 144, Lake Oswego, OR 97034 - rfontes@q.com 2/22/17

The report is light on details.

Where's the data about its budget, sponsorships, fare-type breakdown, reported crime, etc., etc.?
Wasn't the whole point of the 2014 audit that PBOT/PSI need to be more transparent and forthcoming?

PBOT's filings with the National Transit Database (NTD) fills in some of the gaps.

(Please note that the attached NTD summaries are from fiscal 2015. 2016 data should be available this fall.)
We know that local officials have the data reported to the NTD; why not share it with Council and the public?
The NTD standardized reporting format enables comparisons with other agencies and transit modes.
Streetcar data shows it to be a more expensive transit mode than comparable buses.

PSI has dropped important governance, expenditure, and sponsorship information from its website.

The site used to have info about historic capital costs, annual budgets, far more details about sponsorships, etc.
TriMet's site provides info on annual/historic ridership and farebox recovery, monthly performance, budgets, etc.

There is no discussion of the potential effects of autonomous vehicles (AVs) on streetcar's future.

It's not just Portland; most local governments around the country are falling behind the curve on this one.

Right behind Death & Taxes: Four likely AV developments:

They are coming.

Ford expects to mass-produce Shared Autonomous Vehicles (SAVs) only for fleet use in 2021.
The federal government has issued guidelines for AV development.
In at least two European trials, the general public can ride minibus AVs in mixed traffic without backup drivers.

Many streetcar riders will switch to SAVs.

SAV trips promise to cheaper, faster, safer, and far more convenient than those using streetcars.

Buses will become even cheaper to operate relative to streetcars.

Driver costs are a much higher percentage of operating costs for buses than rail vehicles.

AVs will reduce the need for parking, especially paid parking.

Multiple university studies suggest that an SAV can replace about 10 privately owned cars.
SAVs should spend more time in motion instead of being parked compared with privately owned cars.
Privately owned AVs can park in the nearest free space or even just return to home rather than pay to park.
Providing for vehicle loading when few cars are parked will be a major challenge.

Streetcar is exceptionally vulnerable to disruption from SAVs

Streetcar trips are short, averaging about 6100 feet in 2015; SAV trips should almost always be cheaper for full-fare riders.
TriMet will have its own problems and cannot be expected to maintain its high level of support.
PBOT's parking revenue should diminish and could eventually disappear.

Recommendations:

Beef up streetcar's annual report.

Provide more information on streetcar's website.

If you want TriMet support, please bring fares/sponsorships ops costs share to 30% like TriMet.

Stop streetcar expansion until Council approves a plan for system survival in a world with SAVs.

Two thoughts:

Since AVs are expected to save tens of thousands of lives every year in this country alone, any public policy which delays, restricts, or taxes their use will cost lives and deny people mobility.

Without adding a single new resident or job, we can expect AVs to dramatically increase travel demand. This can be mitigated by sharing: sharing vehicles and sharing trips. Public policy must not discourage sharing or the use of fleet based AVs across internal borders of the state of Oregon.

http://www.portlandoregon.gov/
1120 SW 5th Street
Room 800
Portland, OR 97204

City of Portland

2015 Annual Agency Profile

Director, Portland Transportation: Ms. Leah Treat
503-823-5085

General Information

Urbanized Area Statistics - 2010 Census

24 Portland, OR-WA
524 **Square Miles**
1,849,898 **Population**
24 **Pop. Rank out of 498 UZAs**

Service Area Statistics

11 **Square Miles**
72,832 **Population**

Service Consumption

6,503,749 **Annual Passenger Miles (PMT)**
6,476,307 **Annual Unlinked Trips (UPT)**
21,339 **Average Weekday Unlinked Trips**
12,850 **Average Saturday Unlinked Trips**
9,112 **Average Sunday Unlinked Trips**

Service Supplied

390,017 **Annual Vehicle Revenue Miles (VRM)**
60,852 **Annual Vehicle Revenue Hours (VRH)**
14 **Vehicles Operated in Maximum Service (VOMS)**
19 **Vehicles Available for Maximum Service (VAMS)**

Database Information

NTDID: 00058
Reporter Type: Full Reporter

Financial Information

Sources of Operating Funds Expended

Fare Revenues	$1,427,034	8.9%
Local Funds	$14,539,010	91.1%
State Funds	$0	0.0%
Federal Assistance	$0	0.0%
Other Funds	$0	0.0%
Total Operating Funds Expended	$15,966,044	100.0%

Sources of Capital Funds Expended

Fare Revenues	$0	0.0%
Local Funds	$5,194,705	78.0%
State Funds	$1,381,871	20.7%
Federal Assistance	$83,533	1.3%
Other Funds	$0	0.0%
Total Capital Funds Expended	$6,660,109	100.0%

Operating Funding Sources

Capital Funding Sources

Modal Characteristics

Modal Overview

Mode	Vehicles Operated in Maximum Service: Directly Operated	Vehicles Operated in Maximum Service: Purchased Transportation	Uses of Capital Funds: Revenue Vehicles	Uses of Capital Funds: Systems and Guideways	Uses of Capital Funds: Facilities and Stations	Uses of Capital Funds: Other	Uses of Capital Funds: Total
Aerial Tramway	-	2	$0	$0	$0	$0	$0
Street Car Rail	-	12 [2]	$2,152,613	$4,497,717	$9,779	$0	$6,660,109
Total	-	14	$2,152,613	$4,497,717	$9,779	$0	$6,660,109

Summary of Operating Expenses (OE)

Salary, Wages, Benefits	$3,361,438	21.1%
Materials and Supplies	$1,150,296	7.2%
Purchased Transportation	$10,786,260	67.6%
Other Operating Expenses	$660,077	4.1%
Total Operating Expenses	$15,958,071	100.0%
Reconciling OE Cash Expenditures	$7,975	
Purchased Transportation (Reported Separately)	$0	

Operation Characteristics

Mode	Operating Expenses	Fare Revenues	Uses of Capital Funds	Annual Passenger Miles	Annual Unlinked Trips	Annual Vehicle Revenue Miles	Annual Vehicle Revenue Hours	Fixed Guideway Directional Route Miles	Vehicles Available for Maximum Service	Vehicles Operated in Maximum Service	Percent Spare Vehicles	Average Fleet Age in Years[1]
Aerial Tramway	$2,423,274	$604,065	$0	1,184,634	1,850,990	31,194	3,360	1.3	2	2	0.0%	9.0
Street Car Rail	$13,534,797 [2]	$498,003 [2]	$6,660,109	5,319,115	4,625,317	358,823	57,492	14.8	17	12 [2]	29.4%	8.1
Total	$15,958,071	$1,102,068	$6,660,109	6,503,749	6,476,307	390,017	60,852	16.1	19	14	26.3%	

Performance Measures

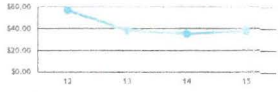
Service Efficiency

Mode	Operating Expenses per Vehicle Revenue Mile	Operating Expenses per Vehicle Revenue Hour
Aerial Tramway	$77.68	$721.21
Street Car Rail	$37.72	$235.42
Total	$40.92	$262.24

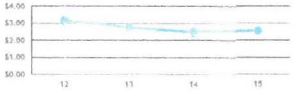
Service Effectiveness

Mode	Operating Expenses per Passenger Mile	Operating Expenses per Unlinked Passenger Trip	Unlinked Trips per Vehicle Revenue Mile	Unlinked Trips per Vehicle Revenue Hour
Aerial Tramway	$2.05	$1.31	59.3	550.9
Street Car Rail	$2.54	$2.93	12.9	80.5
Total	$2.45	$2.46	16.6	106.4

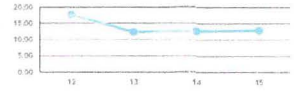
Operating Expense per Vehicle Revenue Mile: Street Car Rail



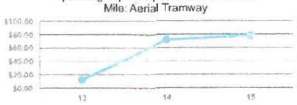
Operating Expense per Passenger Mile: Street Car Rail



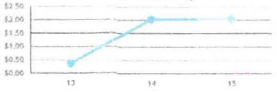
Unlinked Passenger Trip per Vehicle Revenue Mile: Street Car Rail



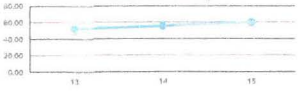
Operating Expense per Vehicle Revenue Mile: Aerial Tramway



Operating Expense per Passenger Mile: Aerial Tramway



Unlinked Passenger Trip per Vehicle Revenue Mile: Aerial Tramway



Notes:

[1]Demand Response - Taxi (DT) and non-dedicated fleets do not report fleet age data.
[2]Includes data for a contract with another reporter.
*This agency has a purchased transportation relationship in which they buy service from Tri-County Metropolitan Transportation District of Oregon (NTDID: 00008), and in which the data are captured in this report for mode SR/PT.

Tri-County Metropolitan Transportation District of Oregon

2015 Annual Agency Profile

http://www.trimet.org/
1800 SW 1st Avenue, Suite 300
Portland, OR 97201

General Manager: Mr. Neil McFarlane
503-962-2134

General Information

Urbanized Area Statistics - 2010 Census

24 Portland, OR-WA
524 **Square Miles**
1,849,898 **Population**
24 **Pop. Rank out of 498 UZAs**

Other UZAs Served

0 Oregon Non-UZA

Service Area Statistics

534 **Square Miles**
1,560,803 **Population**

Service Consumption

508,129,877 **Annual Passenger Miles (PMT)**
101,380,984 **Annual Unlinked Trips (UPT)**
323,289 **Average Weekday Unlinked Trips[a]**
196,604 **Average Saturday Unlinked Trips[a]**
147,793 **Average Sunday Unlinked Trips[a]**

Service Supplied

35,557,741 **Annual Vehicle Revenue Miles (VRM)**
2,805,798 **Annual Vehicle Revenue Hours (VRH)**
918 **Vehicles Operated in Maximum Service (VOMS)**
1,107 **Vehicles Available for Maximum Service (VAMS)**

Database Information

NTDID: 00008
Reporter Type: Full Reporter

Financial Information

Sources of Operating Funds Expended

Fare Revenues	$123,219,141	29.6%
Local Funds	$219,113,373	52.7%
State Funds	$782,926	0.2%
Federal Assistance	$48,373,793	11.6%
Other Funds	$24,420,554	5.9%
Total Operating Funds Expended	$415,909,787	100.0%

Sources of Capital Funds Expended

Fare Revenues	$0	0.0%
Local Funds	$27,134,353	10.9%
State Funds	$116,908,067	46.9%
Federal Assistance	$105,296,840	42.2%
Other Funds	$0	0.0%
Total Capital Funds Expended	$249,339,260	100.0%

Operating Funding Sources

Capital Funding Sources

Modal Characteristics

Modal Overview

Mode	Vehicles Operated in Maximum Service: Directly Operated	Vehicles Operated in Maximum Service: Purchased Transportation	Uses of Capital Funds: Revenue Vehicles	Uses of Capital Funds: Systems and Guideways	Uses of Capital Funds: Facilities and Stations	Uses of Capital Funds: Other	Uses of Capital Funds: Total
Bus	534	-	$39,332,061	$3,353,910	$1,732,079	$2,498,129	$46,916,179
Demand Response	-	219	$2,343,531	$455,624	$0	$779,287	$3,578,442
Demand Response - Taxi	-	57	$0	$0	$0	$0	$0
Hybrid Rail	-	4	$920	$100,385	$0	$419,616	$520,921
Light Rail	104	-	$39,130,448	$132,882,454	$23,114,508	$3,196,310	$198,323,720
Total	638	280	$80,806,960	$136,792,373	$24,846,587	$6,893,342	$249,339,262

Summary of Operating Expenses (OE)

Salary, Wages, Benefits	$311,826,549	79.6%
Materials and Supplies	$37,343,738	9.5%
Purchased Transportation	$27,339,931	7.0%
Other Operating Expenses	$15,097,195	3.9%
Total Operating Expenses	$391,607,413	100.0%
Reconciling OE Cash Expenditures	$15,638,914	
Purchased Transportation (Reported Separately)	$8,663,460 [c]	

Operation Characteristics

Mode	Operating Expenses	Fare Revenues	Uses of Capital Funds	Annual Passenger Miles	Annual Unlinked Trips	Annual Vehicle Revenue Miles	Annual Vehicle Revenue Hours	Fixed Guideway Directional Route Miles	Vehicles Available for Maximum Service	Vehicles Operated in Maximum Service	Percent Spare Vehicles	Average Fleet Age in Years[b]
Bus	$236,793,871	$68,567,921	$46,916,179	287,005,998	62,114,041	20,177,176	1,752,236	3.3	643	534	17.0%	9.5
Demand Response	$32,550,155	$6,737,573	$3,578,442	8,714,793	923,407	6,321,642	470,444	0.0	268	219	18.3%	4.7
Demand Response - Taxi	$4,123,042	$867,326	$0	1,285,943	118,870	1,060,073	40,643	0.0	57	57	0.0%	
Hybrid Rail	$6,668,314	$522,503	$520,921	3,991,627	476,811	162,199	7,470	29.2	6	4	33.3%	25.2
Light Rail	$111,472,031	$46,025,815	$198,323,720	207,131,516	37,747,855	7,836,651	535,005	104.3	133	104	21.8%	18.0
Total	$391,607,413	$122,721,138	$249,339,262	508,129,877	101,380,984	35,557,741	2,805,798	136.8	1,107	918	17.1%	

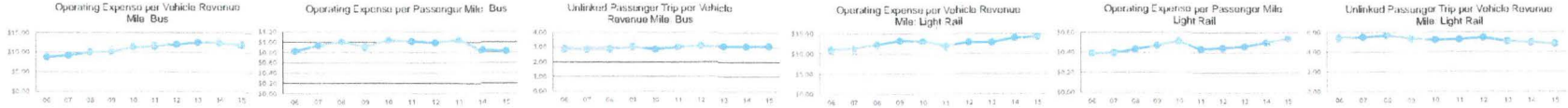
Performance Measures

Service Efficiency

Mode	Operating Expenses per Vehicle Revenue Mile	Operating Expenses per Vehicle Revenue Hour
Bus	$11.74	$135.14
Demand Response	$5.15	$69.19
Demand Response - Taxi	$3.89	$101.45
Hybrid Rail	$41.11	$892.68
Light Rail	$14.22	$208.36
Total	$11.01	$139.57

Service Effectiveness

Mode	Operating Expenses per Passenger Mile	Operating Expenses per Unlinked Passenger Trip	Unlinked Trips per Vehicle Revenue Mile	Unlinked Trips per Vehicle Revenue Hour
Bus	$0.83	$3.81	3.1	35.4
Demand Response	$3.74	$35.25	0.1	2.0
Demand Response - Taxi	$3.21	$34.69	0.1	2.9
Hybrid Rail	$1.67	$13.99	2.9	83.8
Light Rail	$0.54	$2.95	4.8	70.6
Total	$0.77	$3.86	2.9	36.1



Notes: [a]Average Unlinked Trips not available for Demand Response Taxi
[b]Demand Response - Taxi ("DT") and non-dedicated fleets do not report fleet age data
[c]This agency has a purchased transportation relationship in which they sell service to City of Portland (NTDID: 00058), and in which the data are captured in another report for mode SR/PT.

Performance Measures

Service Efficiency

Mode	Operating Expenses per Vehicle Revenue Mile	Operating Expenses per Vehicle Revenue Hour
Aerial Tramway	$77.68	$721.21
Alaska Railroad	$40.83	$1,114.27
Bus	$11.24	$132.70
Bus Rapid Transit	$15.25	$138.93
Cable Car	$214.78	$435.94
Commuter Bus	$8.12	$206.38
Commuter Rail	$16.76	$536.66
Demand Response	$4.86	$71.04
Demand Response - Taxi	$3.72	$55.90
Ferryboat	$176.36	$1,576.86
Heavy Rail	$13.24	$267.40
Hybrid Rail	$28.26	$676.99
Inclined Plane	$83.49	$200.25
Light Rail	$17.35	$273.34
Monorail/Automated	$16.90	$166.70
Publico	$2.05	$21.94
Street Car Rail	$25.78	$183.25
Trolleybus	$24.79	$167.31
Vanpool	$0.70	$27.83
Total	$10.52	$158.56

Service Effectiveness

Mode	Operating Expenses per Passenger Mile	Operating Expenses per Unlinked Passenger Trip	Unlinked Trips per Vehicle Revenue Mile	Unlinked Trips per Vehicle Revenue Hour
Aerial Tramway	$2.05	$1.31	59.3	550.9
Alaska Railroad	$1.98	$242.81	0.2	4.6
Bus	$1.07	$4.03	2.8	32.9
Bus Rapid Transit	$0.82	$2.34	6.5	59.3
Cable Car	$6.97	$8.74	24.6	49.9
Commuter Bus	$0.61	$10.58	0.8	19.5
Commuter Rail	$0.49	$11.68	1.4	45.9
Demand Response	$3.98	$36.89	0.1	1.9
Demand Response - Taxi	$3.20	$26.19	0.1	2.1
Ferryboat	$1.40	$9.03	19.5	174.7
Heavy Rail	$0.49	$2.32	5.7	115.3
Hybrid Rail	$0.92	$11.69	2.4	57.9
Inclined Plane	$6.26	$2.56	32.6	78.1
Light Rail	$0.75	$3.83	4.5	71.4
Monorail/Automated	$2.50	$3.41	5.0	48.9
Publico	$0.38	$1.49	1.4	14.7
Street Car Rail	$1.41	$2.95	8.7	62.1
Trolleybus	$1.79	$2.93	8.5	57.2
Vanpool	$0.12	$4.28	0.2	6.5
Total	$0.76	$4.13	2.5	38.4