



Pension Plan for Bargaining Unit Employees of TriMet

July 1, 2015 GASB 67 and 68 Valuation

Prepared by:

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August 5, 2015

Ms. Dee Brookshire
Executive Director of Finance and Administration
TriMet
1800 SW 1st Avenue, Suite 300
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Dear Dee:

As requested, we performed an actuarial valuation of the Pension Plan for Bargaining Unit Employees of TriMet as of July 1, 2015, for the plan year ending June 30, 2016. Our findings are set forth in this actuary's report.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by TriMet. This information includes, but is not limited to, benefit provisions, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, and other factors for the Plan have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the Plan and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the Plan. The assumptions used for the valuation were selected by the Plan's Board of Trustees and TriMet, including the assumption for the long term expected return on plan assets of 7.00%. The Plan's Board of Trustees and TriMet have the final decision regarding the appropriateness of the assumptions.

This valuation report is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and

Ms. Dee Brookshire
August 5, 2015
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changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

Actuarial computations presented in this report are for purpose of fulfilling TriMet's financial accounting and reporting requirements under GASB 67 and 68. The calculations enclosed in this report have been made on a basis consistent with our understanding of the Plan, TriMet's funding policy and GASB 67 and 68. Determinations for purposes other than meeting financial reporting requirements may be significantly different than the results contained in this report. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security or meeting employer funding requirements.

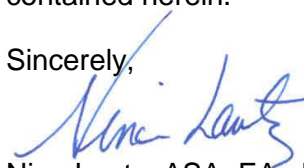
Milliman's work is prepared solely for the use and benefit of TriMet. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. No third party recipient of Milliman's work product should rely upon this report. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuary is independent of the plan sponsor. I am not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, I hereby certify that, to the best of my knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. I am a member of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Sincerely,



Nina Lantz, ASA, EA, MAAA
Principal and Consulting Actuary

NML:nml
encl.

**PENSION PLAN FOR BARGAINING UNIT
EMPLOYEES OF TRIMET**

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SECTION 1 Purpose and Summary

Purpose

This report presents the results of our actuarial valuation of the Plan as of July 1, 2015. The purpose of this report is to develop the actuarial disclosure information required by the Government Accounting Standards Board (GASB) Statements No. 67 and 68 as of June 30, 2015.

The assumptions used for the valuation were selected by the Plan's Board of Trustees and TriMet, including the assumption for the long term expected return on plan assets of 7.00%. Performing the valuation using other assumptions will yield different results.

The figures in this report are only intended for financial reporting under GASB 67 and 68. Funding calculations as of July 1, 2015 have not yet been completed, but may be based in part on the findings in this report.

Plan Benefits Valued

Plan provisions used were based on the plan document restated effective July 1, 2013, as amended by Amendment 1 and the Working and Wage Agreement between TriMet and ATU 757 in effect from December 1, 2012 through November 30, 2016. The provisions are summarized in Appendix A.

- Amendment 1 made technical changes relating to leased employees, IRC Section 415 limits and Qualified Domestic Relations Orders. This amendment did not impact the Plan's liabilities.

Actuarial Methods and Assumptions

Appendix B summarizes the assumptions and methods used for the valuation. Changes from the July 1, 2014 actuarial valuation are listed below.

- The inflation assumption was lowered from 3.00% to 2.75%.
- The assumption for future pay increases was lowered from 3.00% to 2.75% per year.
- Assumed pre- and post-retirement benefit increases were updated to reflect the change in the inflation assumption.
- The factors used to annualize benefits were updated to reflect the change in the inflation assumption.
- Anticipated administrative expenses were increased from \$275,000 to \$300,000 based on recent plan experience and future expectations.

The changes to the inflation and pay increase assumptions lowered total pension liability by about \$16.6 million.

Participant Statistics

The following is a summary of the more important figures developed in this valuation, together with comparable figures from the prior valuation report. The participant data that was supplied to us is summarized in more detail in Appendix C.

	July 1, 2015	July 1, 2014
Active Participants	1,706	1,817
Average Age	51.8	51.3
Average Years of Vesting Service	14.6	13.9
Management Transfers	64	60
Vested Terminations	133	140
Retirees, Disabled & Beneficiaries	1,611	1,518
Average Age	68.7	68.4
Average Monthly Benefit	\$1,632	\$1,619
Total Participants	3,514	3,535
Ratio of Inactives to Actives	99%	88%

GASB Summary

New accounting standards, GASB Statements No. 67 and 68, substantially revised the accounting requirements previously mandated under GASB Statements No. 25 and 27. GASB 67 governs financial reporting for public pension plans and is effective for plan fiscal years beginning after June 15, 2013. GASB 68 governs the accounting of pension plan obligations for public employers and is effective for employer fiscal years beginning after June 15, 2014. TriMet elected to apply both of the new GASB accounting standards effective beginning with the fiscal year ending June 30, 2014.

A summary of the key figures disclosed under the new GASB standards for fiscal years ending June 30, 2014 and June 30, 2015 are shown below.

	June 30, 2014	June 30, 2015
Total Pension Liability	\$618,228,084	\$ 625,232,678
Fiduciary Net Position	<u>448,378,984</u>	<u>465,814,951</u>
Net Pension Liability	\$169,849,100	\$ 159,417,727
Funded Percentage	72.53%	74.50%
Pension Expense	\$ 25,539,363	\$ 23,028,018
Discount Rate	7.00%	7.00%
Long-term Expected Return on Plan Assets	7.00%	7.00%

	June 30, 2014	June 30, 2015
Actuarially determined contribution	\$ 35,553,324	\$ 31,925,575
Actual employer contribution*	<u>47,261,301</u>	<u>36,200,926</u>
Contribution deficiency (excess)	\$ (11,707,977)	\$ (4,275,351)

* Excluding contributions for Medicare reimbursement payments.

The annual pension expense reflects changes in the net pension liability from the prior year to the current year, with limited smoothing for investment gains and losses, economic and demographic gains and losses and assumption changes.

Experience Gains and Losses

Experience gains and losses occur due to Plan experience that is different from the actuarial assumptions used to value the Plan's liabilities and assets. Since actual experience will never exactly match the Plan's assumptions, it is certain that the Plan will experience actuarial gains and losses each year. These gains and losses arise from three sources: investment experience (including expense experience), and demographic experience. During the 2014-2015 plan year, the total experience loss was approximately \$18.7 million.

Investment Experience

The investment rate of return on the fiduciary net position for the plan year ending June 30, 2015 was about 2.7%. Compared to the 7.0% return assumed for the 2014-2015 plan year, there was an investment loss of approximately \$19.3 million.

Expense Experience

There was an experience loss of about \$73,000 due to higher administrative expenses than the \$275,000 assumed during the 2014-2015 plan year.

Demographic Experience

Demographic gains and losses occur when the Plan's actual demographic experience differs from our valuation assumptions. The Plan experienced a net gain on the total pension liability of approximately \$540,000 from demographic experience different than assumed.

Cost-of-living adjustments (COLAs) during the 2014-2015 plan year were below the valuation assumption (3.0% for participants who retired before August 1, 2012 and 2.7% for participants who retired on or after August 1, 2012). The actual COLA was 1.50% and 1.35%, respectively. These lower than expected increases resulted in a gain of about \$5.0 million.

The remaining \$4.5 million in net losses was primarily due to fewer retiree, disabled, and beneficiary deaths than expected and net losses on new retirees due to timing of retirement, form of payment elections and unused sick leave conversions. The workforce continues to age and work past the age at which they are first eligible for unreduced retirement benefits (58). The average age of the active group has increased from 49.6 to 51.8 over the past 7 years. About 63% of the active population is age 50 and older.

Sensitivity of Results

The results presented in this report are dependent upon the actuarial assumptions being realized in the future. To the extent that actual Plan experience differs from the assumptions, future actuarial costs will differ from those presented in this report.

SECTION 2 Discussion of the Valuation

Implementation of GASB 67 and 68

GASB released new accounting standards for public pension plans and employers in June 2012. These standards, GASB Statements No. 67 and 68, substantially revised the accounting requirements previously mandated under GASB Statements No. 25 and 27. GASB 67 applies to financial reporting for public pension plans and is effective for plan fiscal years beginning after June 15, 2014. GASB 68 governs the accounting for pension plan obligations for public employers and is effective for employer fiscal years beginning after June 15, 2015. Earlier application is encouraged but not required.

TriMet elected to apply both of the new GASB accounting standards effective beginning with the fiscal year ending June 30, 2014.

The GASB statements provide that in the first period that the statements are applied, changes made to comply with the new standards should be treated as an adjustment to prior periods and the financial statements presented for prior periods should be restated. Since TriMet's audited financial statements show three fiscal years of information, prior valuation results were restated to comply with the new standards beginning with the fiscal year ending June 30, 2011. A summary of the historical measurements is shown on Exhibit 7.

Discount Rate

Under GASB 67 and 68, the discount rate is a single rate that reflects the long-term expected rate of return on the fiduciary net position to the extent those assets plus future contributions in excess of normal costs are sufficient to pay projected benefits, and a 20-year tax-exempt, high quality general obligation municipal bond yield or index rate to the extent that assets and future contributions are not sufficient.

Further, the standards provide that professional judgment should be used in projecting contributions for this solvency projection. Contributions established by statute or contract or any formal, written policy related to contributions should be reflected. The most recent five years of contributions made by the employer should also be considered as a key indicator of future contributions. TriMet adopted a formal, written funding policy which should be considered in conjunction with their recent contribution practice for purposes of developing the discount rate.

Exhibit 1 describes the techniques and assumptions used for the depletion date projection. Exhibit 2 shows the projection of the fiduciary net position over the next 30 years assuming all assumptions are met and describes the discount rate. Exhibit 3 shows the discount rate as of June 30, 2014 and June 30, 2015.

Net Pension Liability

The net pension liability is measured as the total pension liability minus the fiduciary net position.

Total pension liability is determined using the entry age normal actuarial cost allocation method. In addition, GASB 67 and 68 require that the allocation of costs for accounting purposes be made as a level percentage of employees' projected pay, including future anticipated pay increases. The Plan's total pension liability reflects a 2.75% long-term annual salary increase assumption.

The fiduciary net position is equal to the market value of assets as of the valuation date.

Exhibit 3 shows the net pension liability as of June 30, 2014 and June 30, 2015. The changes in the net pension liability from June 30, 2014 to June 30, 2015 are shown on Exhibit 4. The 10-year schedule of changes in the net pension liability and related ratios are provided in Exhibit 7. This 10-year schedule is shown on a prospective basis from June 30, 2011 as allowed under GASB 67 and 68.

Sensitivity Analysis

Exhibit 4 shows what the net pension liability would be using a discount rate that is 1 percentage point lower and 1 percentage point higher than the rate used as of June 30, 2015.

Deferred Inflows and Outflows

Under GASB 68, gains and losses which are amortized over future years are referred to as deferred inflows (gains) and deferred outflows (losses).

- Investment gains and losses are recognized over a closed five year period.
- Economic and demographic gains and losses and changes in the total pension liability due to changes in assumptions are recognized over the closed period equal to the average expected remaining service lives of all covered active and inactive employees, determined as of the beginning of the measurement period.

The amortization period is calculated as the weighted average of expected remaining service lives assuming zero years for all inactive employees. Active employees include management transfers and inactive employees include terminated vested and disabled employees, retirees and beneficiaries.

The amortization period for the June 30, 2014 to June 30, 2015 measurement period was 5.4, based on the following statistics.

As of June 30, 2014	Expected Remaining Service Lives	Employee Count
Active employees	10.253	1,877
Inactive employees	0.000	1,658

Exhibit 5 shows the total deferred inflows and outflows of resources as of June 30, 2015 along with a schedule showing the amounts that will be recognized in future years. All outstanding deferred inflows and outflows as of June 30, 2015 are shown on Exhibit 6.

Pension Expense

The annual pension expense reflects changes in the net pension liability from the prior year to the current year, with limited smoothing for deferred items. Because GASB requires that a portion of the changes in the net pension liability due to gains and losses and assumption changes be reflected during the current fiscal year, the final pension expense for any year will not be known until after the fiscal year end. Exhibit 5 shows the pension expense for the fiscal year ending June 30, 2015.

Schedule of Employer Contributions

Exhibit 8 is a 10-year schedule of the actuarially determined contribution, contributions made in relation to the actuarially determined contribution and related ratios. It also summarizes the significant methods and assumptions that were used to develop the actuarially determined contribution.

Money-Weighted Rate of Return

Exhibit 9 is calculation of the money-weighted rate of return net of investment expenses for the fiscal year ending June 30, 2015 assuming monthly cash flows occur at the end of each month.

Long-Term Expected Rate of Return by Asset Class

Exhibit 10 provides the expected real rate of return for each asset class, excluding inflation. It is based on the capital market assumptions developed by Milliman's investment consulting practice as of December 31, 2014 and the Plan's investment policy adopted by the Plan's Board of Trustees and last amended February 23, 2015.

Notes and Required Supplementary Information

GASB 67 and 68 require additional information be presented in the notes to the financial statements and required supplementary information (RSI). The attached exhibits relate to the actuarial disclosures of the Plan. Additional information related to the Plan provisions, census data, and assumptions and methods used for the actuarial disclosures may be found in the respective actuarial valuation reports for the applicable plan years.

Exhibit 1

Depletion Date Projection

In order to determine if the Plan's fiduciary net position is projected to be sufficient to make projected benefit payments, we have prepared a depletion date projection using the following techniques and assumptions:

- Benefit payments are projected based on the Plan provisions summarized in Appendix A and the actuarial assumptions and methods described in Appendix B. Projected benefit payments are shown in Appendix D.
- Administrative expenses are assumed to be \$300,000 for the 2015-2016 fiscal year, increasing 3% per year for each year benefit payments increase, and decreasing 2% per year thereafter.
- TriMet is assumed to contribute the actuarially determined contribution each year. The funding policy used to determine the actuarially determined contribution is assumed to not change in the future.

On February 26, 2014, TriMet's Board of Directors approved Resolution 14-02-06, formally adopting a pension funding policy for the Plan. This policy provides for an actuarially determined contribution based on the following parameters:

- Use of the entry age normal, level percentage of payroll actuarial cost allocation method
- Five year smoothing of market value investment gains and losses, with the resulting smoothed asset value within 20% of market value
- Long-term average annual investment return on plan assets (to be reviewed and updated as appropriate at least every 2 years). The current rate of return assumption is 7.0%.
- Initial amortization period of 15 years, reducing one year annually until 5 years is reached.

Prior to the adoption of the funding policy, we are not aware of any formal, written funding policy. TriMet's contribution practice over the preceding five years had been to contribute the Annual Required Contribution (ARC) based on assumptions and methods compliant with GASB 25 and 27.

- The 15-year amortization period was effective July 1, 2014. The amortization period as of July 1, 2015 is 14 years.
- All cash flows are assumed to occur on average halfway through the year.
- The long-term expected rate of return on pension plan investments is 7.00%.
- The assumed tax-exempt, high-quality general obligation municipal bond index rate is 4.00%.

Future projections will yield different results as actual Plan experience becomes known.

Exhibit 2

Projection of Fiduciary Net Position and Discount Rate

Fiscal Year Beginning	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings	Projected Ending Fiduciary Net Position
7/1/2015	\$465,814,951	\$28,030,397	(\$32,797,698)	(\$300,000)	\$32,432,691	\$493,180,341
7/1/2016	493,180,341	27,306,788	(35,503,670)	(309,000)	34,229,953	518,904,412
7/1/2017	518,904,412	26,170,662	(38,069,814)	(318,270)	35,902,931	542,589,921
7/1/2018	542,589,921	25,454,219	(40,747,518)	(327,818)	37,443,802	564,412,606
7/1/2019	564,412,606	25,678,712	(43,326,119)	(337,653)	38,890,052	585,317,598
7/1/2020	585,317,598	25,473,173	(45,746,485)	(347,783)	40,262,700	604,959,203
7/1/2021	604,959,203	25,337,125	(47,992,751)	(358,216)	41,555,283	623,500,644
7/1/2022	623,500,644	25,197,505	(50,253,758)	(368,962)	42,770,213	640,845,642
7/1/2023	640,845,642	25,106,626	(52,366,846)	(380,031)	43,908,148	657,113,539
7/1/2024	657,113,539	25,066,029	(54,286,366)	(391,432)	44,979,065	672,480,835
7/1/2025	672,480,835	21,553,134	(56,000,565)	(403,175)	45,874,517	683,504,746
7/1/2026	683,504,746	18,579,422	(57,712,618)	(415,270)	46,484,547	690,440,827
7/1/2027	690,440,827	16,043,696	(59,154,540)	(427,728)	46,832,781	693,735,036
7/1/2028	693,735,036	13,895,543	(60,411,120)	(440,560)	46,945,784	693,724,683
7/1/2029	693,724,683	12,058,618	(61,481,464)	(453,777)	46,844,571	690,692,631
7/1/2030	690,692,631	10,491,436	(62,370,092)	(467,390)	46,547,359	684,893,944
7/1/2031	684,893,944	9,140,594	(63,240,369)	(481,412)	46,064,544	676,377,301
7/1/2032	676,377,301	7,975,459	(63,793,281)	(495,854)	45,408,768	665,472,393
7/1/2033	665,472,393	6,984,533	(64,071,229)	(510,730)	44,601,253	652,476,220
7/1/2034	652,476,220	6,133,935	(64,112,491)	(526,052)	43,660,306	637,631,918
7/1/2035	637,631,918	5,375,035	(63,971,839)	(515,531)	42,600,294	621,119,877
7/1/2036	621,119,877	4,709,130	(63,629,855)	(505,220)	41,433,661	603,127,593
7/1/2037	603,127,593	4,140,556	(63,048,258)	(495,116)	40,174,997	583,899,772
7/1/2038	583,899,772	3,640,377	(62,296,041)	(485,214)	38,838,062	563,596,956
7/1/2039	563,596,956	3,202,888	(61,354,378)	(475,510)	37,434,547	542,404,503
7/1/2040	542,404,503	2,825,615	(60,212,515)	(466,000)	35,977,710	520,529,313
7/1/2041	520,529,313	2,497,810	(58,911,981)	(456,680)	34,480,237	498,138,699
7/1/2042	498,138,699	2,210,145	(57,457,666)	(447,546)	32,953,351	475,396,983
7/1/2043	475,396,983	1,955,184	(55,932,754)	(438,595)	31,405,435	452,386,253
7/1/2044	452,386,253	1,732,277	(54,300,327)	(429,823)	29,843,485	429,231,865
7/1/2045	429,231,865	1,535,924	(52,551,557)	(421,227)	28,276,389	406,071,394
7/1/2046	406,071,394	1,364,517	(50,731,109)	(412,802)	26,712,186	383,004,186
7/1/2047	383,004,186	1,214,324	(48,868,745)	(404,546)	25,156,678	360,101,897
7/1/2048	360,101,897	1,083,652	(46,917,509)	(396,455)	23,616,438	337,488,023
7/1/2049	337,488,023	974,121	(44,879,350)	(388,526)	22,100,100	315,294,368
7/1/2050	315,294,368	883,223	(42,788,092)	(380,755)	20,615,640	293,624,384

Note: Years on and after July 1, 2051 and before July 1, 2085 have been omitted from this table.

Exhibit 2

Projection of Fiduciary Net Position and Discount Rate

Fiscal Year Beginning	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings	Projected Ending Fiduciary Net Position
7/1/2085	\$1,275,077	\$199,263	(\$421,985)	(\$187,740)	\$75,132	\$939,747
7/1/2086	939,747	193,933	(319,851)	(183,985)	55,119	684,963
7/1/2087	684,963	188,871	(240,046)	(180,305)	39,983	493,466
7/1/2088	493,466	184,059	(178,419)	(176,699)	28,657	351,064
7/1/2089	351,064	179,477	(131,355)	(173,165)	20,272	246,293
7/1/2090	246,293	175,108	(95,780)	(169,702)	14,131	170,050
7/1/2091	170,050	170,932	(69,162)	(166,308)	9,683	115,195
7/1/2092	115,195	166,936	(49,439)	(162,982)	6,499	76,209
7/1/2093	76,209	163,101	(34,976)	(159,722)	4,247	48,859
7/1/2094	48,859	159,417	(24,441)	(156,528)	2,679	29,986
7/1/2095	29,986	155,870	(16,860)	(153,397)	1,604	17,203
7/1/2096	17,203	152,448	(11,487)	(150,329)	882	8,717
7/1/2097	8,717	149,142	(7,691)	(147,322)	408	3,254
7/1/2098	3,254	145,940	(5,089)	(144,376)	106	(165)
7/1/2099	(165)	142,845	(3,317)	(141,488)	(79)	(2,204)
7/1/2100	(2,204)	139,925	(2,132)	(138,658)	(184)	(3,253)
7/1/2101	(3,253)	137,023	(1,340)	(135,885)	(235)	(3,690)
7/1/2102	(3,690)	134,165	(832)	(133,167)	(253)	(3,777)
7/1/2103	(3,777)	131,367	(501)	(130,504)	(252)	(3,667)
7/1/2104	(3,667)	128,634	(297)	(127,894)	(241)	(3,465)
7/1/2105	(3,465)	125,968	(170)	(125,336)	(227)	(3,230)
7/1/2106	(3,230)	123,369	(88)	(122,829)	(211)	(2,989)
7/1/2107	(2,989)	120,836	(42)	(120,372)	(195)	(2,762)
7/1/2108	(2,762)	118,367	(23)	(117,965)	(180)	(2,563)
7/1/2109	(2,563)	115,963	(10)	(115,606)	(167)	(2,383)
7/1/2110	(2,383)	113,608	(3)	(113,294)	(156)	(2,228)
7/1/2111	(2,228)	111,308	(1)	(111,028)	(146)	(2,095)
7/1/2112	(2,095)	109,058	0	(108,807)	(138)	(1,982)

Projection Results: The Plan's fiduciary net position is projected to become insolvent during the 2098-2099 plan year. Nearly all of the Plan's benefits are expected to have been paid out by this time. Assuming a municipal bond rate of 4.00% after this year, the single effective discount rate would be 6.999997%.

Discount Rate: The discount rate for purposes of calculating liabilities in this report is equal to the expected long-term expected rate of return on plan assets, 7.0%.

Exhibit 3

Net Pension Liability

Net Pension Liability	June 30, 2014	June 30, 2015
Total pension liability	\$ 618,228,084	\$ 625,232,678
Fiduciary net position	<u>448,378,984</u>	<u>465,814,951</u>
Net pension liability	\$ 169,849,100	\$ 159,417,727
Fiduciary net position as a % of total pension liability	72.53%	74.50%
Covered payroll	\$ 124,695,531	\$ 116,555,801
Net pension liability as a % of covered payroll	136.21%	136.77%

The total pension liability was determined by an actuarial valuation as of the valuation date, calculated based on the discount rate and actuarial assumptions below.

Discount Rate

The Plan's fiduciary net position plus anticipated future contributions in adherence with the funding policy is projected to become insolvent during the 2098-2099 plan year. Nearly all of the Plan's benefits are expected to have been paid out by this time. The single effective discount rate for purposes of calculating liabilities in this report is equal to the expected long-term expected rate of return on plan assets.

Discount rate	7.00%	7.00%
Long-term expected rate of return (net of investment expenses)	7.00%	7.00%

Other Key Actuarial Assumptions

Valuation date	July 1, 2014	July 1, 2015
Measurement date	June 30, 2014	June 30, 2015
Inflation (also used for salary increase assumption)	3.00%	2.75%
Cost-of-Living Adjustments		
Benefit Multiplier and Disability Benefits	Inflation	Inflation
If retired prior to August 1, 2012	Inflation	Inflation
If retired on or after August 1, 2012	90% of Inflation	90% of Inflation
Mortality	RP-2000 Combined Healthy Mortality Table with Blue Collar Adjustment for males and females, projected to 2010 using Scale AA	RP-2000 Combined Healthy Mortality Table with Blue Collar Adjustment for males and females, projected to 2010 using Scale AA
Actuarial cost method	Entry Age Normal as Level % of Pay	Entry Age Normal as Level % of Pay

Exhibit 4

Changes in Net Pension Liability (June 30, 2014 to June 30, 2015)

Changes in Net Pension Liability	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances as of June 30, 2014	\$618,228,084	\$448,378,984	\$169,849,100
Changes for the year:			
Service cost	11,756,232		11,756,232
Interest on total pension liability	43,025,200		43,025,200
Effect of plan changes	0		0
Effect of economic/demographic (gains) or losses	(541,183)		(541,183)
Effect of assumptions changes or inputs	(16,558,463)		(16,558,463)
Benefit payments*	(30,677,192)	(30,677,192)	0
Administrative expenses		(363,267)	363,267
Member contributions		0	0
Net investment income		12,275,500	(12,275,500)
Employer contributions*		36,200,926	(36,200,926)
 Balances as of June 30, 2015	 \$625,232,678	 \$465,814,951	 \$159,417,727

* Medicare reimbursements are excluded in the benefit payment and employer contribution amounts above.

Sensitivity Analysis

The following presents the net pension liability of the Plan, calculated using the discount rate of 7.0%, as well as what the Plan's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.0%) or 1 percentage point higher (8.0%) than the current rate.

	1% Decrease 6.0%	Current Discount Rate 7.0%	1% Increase 8.0%
Total pension liability	\$698,307,003	\$625,232,678	\$563,417,572
Fiduciary net position	<u>465,814,951</u>	<u>465,814,951</u>	<u>465,814,951</u>
Net pension liability	\$232,492,052	\$159,417,727	\$ 97,602,621

Exhibit 5 Pension Expense

Pension Expense	<u>July 1, 2014 to June 30, 2015</u>
Service cost	\$11,756,232
Interest on total pension liability	43,025,200
Effect of plan changes	0
Administrative expenses	363,267
Member contributions	0
Expected investment return net of investment expenses	(31,545,012)
Recognition of Deferred (Inflows)/Outflows of Resources	
Recognition of economic/demographic (gains) or losses	(2,199,670)
Recognition of assumption changes or inputs	4,532,687
Recognition of investment (gains) or losses	<u>(2,904,686)</u>
Pension Expense	\$23,028,018

As of June 30, 2015, the deferred inflows and outflows of resources are as follows:

Deferred Inflows / Outflows of Resources	<u>Deferred Inflows of Resources*</u>	<u>Deferred Outflows of Resources*</u>
Differences between expected and actual experience	\$ (12,202,707)	\$ 2,760,892
Changes of assumptions or inputs	(13,492,081)	27,114,569
Net difference between projected and actual earnings	(29,465,380)	19,740,069
Contributions made subsequent to measurement date	<u>0</u>	<u>0</u>
Total	\$ (55,160,168)	\$ 49,615,530

* *Deferred outflows of resources are presented as positive amounts. Deferred inflows of resources are presented as negative amounts.*

Other amounts currently reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended June 30:	Annual Recognition*
2016	\$ (571,670)
2017	(4,896,131)
2018	(2,116,321)
2019	3,306,125
2020	(1,266,641)
Thereafter	0

* *Note that future deferred inflows and outflows of resources may impact these numbers.*

Exhibit 6

Schedule of Deferred Inflows and Outflows of Resources

	Original Amount	Date Established	Original Recognition Period*	Amount Recognized in Expense 06/30/2015	Balance of Deferred Inflows 06/30/2015	Balance of Deferred Outflows 06/30/2015
Investment (gains) or losses	\$ 19,269,512	06/30/2015	5.0	\$ 3,853,902	\$ 0	\$ 15,415,610
	(36,496,410)	06/30/2014	5.0	(7,299,282)	(21,897,846)	0
	(18,918,832)	06/30/2013	5.0	(3,783,766)	(7,567,534)	0
	21,622,299	06/30/2012	5.0	4,324,460	0	4,324,459
				\$ (2,904,686)	\$ (29,465,380)	\$ 19,740,069
Economic/demographic (gains) or losses	\$ (541,183)	06/30/2015	5.4	\$ (100,219)	\$ (440,964)	\$ 0
	(11,294,241)	06/30/2014	5.8	(1,947,283)	(7,399,675)	0
	(8,583,422)	06/30/2013	6.1	(1,407,118)	(4,362,068)	0
	7,780,692	06/30/2012	6.2	1,254,950	0	2,760,892
				\$ (2,199,670)	\$ (12,202,707)	\$ 2,760,892
Assumption changes or inputs	\$(16,558,463)	06/30/2015	5.4	\$ (3,066,382)	\$(13,492,081)	\$ 0
	29,476,059	06/30/2014	5.8	5,082,079	0	19,311,901
	15,353,638	06/30/2013	6.1	2,516,990	0	7,802,668
	0	06/30/2012	6.2	0	0	0
				\$ 4,532,687	\$ (13,492,081)	\$ 27,114,569

* Investment (gains)/losses are recognized in pension expense over a period of five years; economic/demographic (gains)/losses and assumption changes or inputs are recognized over the weighted average of expected remaining service lives for all active and inactive participants.

Exhibit 7

Schedule of Changes in Total Pension Liability, Fiduciary Net Position and Related Ratios

	Fiscal Year Ending June 30,									
	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Total Pension Liability										
Service cost	\$11,756,232	\$11,406,016	\$11,122,166	\$11,030,625	\$0	\$0	\$0	\$0	\$0	\$0
Interest on total pension liability	43,025,200	42,869,939	41,827,133	40,065,267	0	0	0	0	0	0
Effect of plan changes	0	0	0	(10,616,209)	0	0	0	0	0	0
Effect of assumption changes or inputs	(16,558,463)	29,476,059	15,353,638	0	0	0	0	0	0	0
Effect of economic/demographic (gains) or losses	(541,183)	(11,294,241)	(8,583,422)	7,780,692	0	0	0	0	0	0
Benefit payments*	(30,677,192)	(28,845,723)	(27,372,519)	(23,863,800)	0	0	0	0	0	0
Net change in total pension liability	7,004,594	43,612,050	32,346,996	24,396,575	0	0	0	0	0	0
Total pension liability, beginning	618,228,084	574,616,034	542,269,038	517,872,463	0	0	0	0	0	0
Total pension liability, ending (a)	\$625,232,678	\$618,228,084	\$574,616,034	\$542,269,038	\$517,872,463	0	0	0	0	0
Fiduciary Net Position										
Employer contributions*	\$36,200,926	\$47,261,301	\$70,379,741	\$18,823,691	\$0	\$0	\$0	\$0	\$0	\$0
Member contributions	0	0	0	0	0	0	0	0	0	0
Investment income net of investment expenses	12,275,500	64,460,966	42,348,566	792,478	0	0	0	0	0	0
Benefit payments*	(30,677,192)	(28,845,723)	(27,372,519)	(23,863,800)	0	0	0	0	0	0
Administrative expenses	(363,267)	(486,934)	(222,824)	(289,032)	0	0	0	0	0	0
Net change in plan fiduciary net position	17,435,967	82,389,610	85,132,964	(4,536,663)	0	0	0	0	0	0
Fiduciary net position, beginning	448,378,984	365,989,374	280,856,410	285,393,073	0	0	0	0	0	0
Fiduciary net position, ending (b)	\$465,814,951	\$448,378,984	\$365,989,374	\$280,856,410	\$285,393,073	0	0	0	0	0
Net pension liability, ending = (a) - (b)	\$159,417,727	\$169,849,100	\$208,626,660	\$261,412,628	\$232,479,390	\$0	\$0	\$0	\$0	\$0
Fiduciary net position as a % of total pension liability	74.50%	72.53%	63.69%	51.79%	55.11%	N/A	N/A	N/A	N/A	N/A
Covered payroll	\$116,555,801	\$124,695,531	\$125,143,307	\$125,142,143	\$119,165,798	\$0	\$0	\$0	\$0	\$0
Net pension liability as a % of covered payroll	136.77%	136.21%	166.71%	208.89%	195.09%	N/A	N/A	N/A	N/A	N/A

* Medicare reimbursements are excluded in the benefit payment and employer contribution amounts above.

This schedule is presented to illustrate the requirement to show information for 10 years. However, recalculations of prior years are not required, and if prior years are not calculated in accordance with the current GASB standards, they should not be reported.

Exhibit 8

Schedule of Employer Contributions (Dollar Amounts in Thousands)

	Fiscal Year Ending June 30,									
	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Actuarially determined contribution	\$ 31,926	\$ 35,553	\$ 34,638	\$ 32,224	\$ 34,028	\$ 28,051	\$ 26,154	\$ 26,177	\$ 25,511	\$ 24,464
Actual employer contribution*	36,201	47,261	70,379	18,824	47,428	28,051	26,154	26,177	25,511	24,075
Contribution deficiency (excess)	(4,275)	(11,708)	(35,741)	13,400	(13,400)	0	0	0	0	389
Covered payroll	116,556	124,696	125,143	125,142	119,166	121,124	123,784	116,418	111,877	106,705
Contribution as a % of covered payroll	31.06%	37.90%	56.24%	15.04%	39.80%	23.16%	21.13%	22.49%	22.80%	22.56%
Valuation Date	7/1/2014	7/1/2012	7/1/2011	7/1/2010	7/1/2009	7/1/2008	7/1/2007	7/1/2006	7/1/2005	7/1/2004
Investment Rate of Return Assumption	7.00%	7.75%	7.75%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%

* Medicare reimbursements are excluded in the actual employer contribution amounts above.

Notes to Schedule

Valuation Date	Effective July 1, 2014: Actuarially determined contribution (ADC) calculated using the valuation for the current fiscal year Effective July 1, 2006: ADC calculated as of the July 1 the year prior to fiscal year in which contributions are reported
Methods and assumptions used to determine contribution rates	
Actuarial Cost Method	Effective July 1, 2014: Individual entry age normal, level percent of pay Effective July 1, 2004: Individual entry age normal, level dollar
Amortization Method	Effective July 1, 2014: Closed 15-year amortization, level percent of pay, decreasing by 1 each year until 5 is reached Effective July 1, 2006: Open 20-year amortization, level dollar Effective July 1, 2005: Open 21-year amortization, level dollar Effective July 1, 2004: Open 22-year amortization, level dollar
Asset Valuation Method	Market value gains and losses smoothed over 5 years, with result not less than 80% or greater than 120% of market value
Healthy Mortality	Effective July 1, 2010: RP-2000 Combined Healthy Mortality with Blue Collar Adjustment, projected to 2010 using Scale AA Effective July 1, 2004: RP-2000 Combined Healthy Mortality with Blue Collar Adjustment
Inflation and Pay Increases	Effective July 1, 2015: 2.75% Effective July 1, 2004: 3.00%
Cost of Living Adjustments	Effective July 1, 2004
Benefit Multiplier and Disability Benefits	Inflation
If retired prior to August 1, 2012	Inflation
If retired on or after August 1, 2012	90% of inflation (valuation dates on and after July 1, 2012), 100% of inflation (valuation dates prior to July 1, 2012)

Exhibit 9

Money-Weighted Rate of Return (Fiscal Year Ending June 30, 2015)

The money-weighted rate of return is the internal rate of return on plan assets based on the amounts and timing of actual cash flows. External cash flows (contributions, benefit payments and administrative expenses) are determined on a monthly basis and are assumed to occur at the end of each month. External cash inflows are netted with external cash outflows, resulting in a net external cash flow in each month. The money-weighted rate of return is calculated net of investment expenses. For these calculations, Medicare reimbursements have been excluded from both contributions and benefit payments.

	Net External Cash Flows	Periods Invested	Period Weight	Net External Cash Flows With Interest
Beginning Value - July 1, 2014	\$448,349,531	12.00	1.00	\$460,576,007
Monthly net external cash flows:				
July	506,178	11.00	0.92	518,863
August	445,279	10.00	0.83	455,334
September	436,431	9.00	0.75	445,327
October	489,678	8.00	0.67	498,585
November	429,852	7.00	0.58	436,612
December	469,502	6.00	0.50	475,861
January	441,296	5.00	0.42	446,311
February	441,725	4.00	0.33	445,664
March	447,981	3.00	0.25	451,004
April	400,302	2.00	0.17	402,137
May	355,781	1.00	0.08	356,548
June	306,698	0.00	0.00	306,698
Ending Value - June 30, 2015	465,814,951			465,814,951
Money-Weighted Rate of Return	2.73%			

Schedule of Investment Returns

Fiscal Year Ending June 30,	Money-Weighted Rate of Return Net of Investment Expenses
2015	2.73%
2014	17.28%
2013	N/A
2012	N/A
2011	N/A
2010	N/A
2009	N/A
2008	N/A
2007	N/A
2006	N/A
2005	N/A

Exhibit 10

Long-Term Expected Rate of Return by Asset Class

The best-estimate range for the long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation. The capital market assumptions shown are one-year arithmetic averages, excluding inflation, developed by Milliman's investment consulting practice as of December 31, 2014. The Plan's investment policy adopted by the Plan's Board of Trustees was last amended February 23, 2015.

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
Fixed Income	10%	2.1%
U.S. Large-Mid Cap Equities	27%	5.5%
U.S. Small Cap Equities	3%	6.4%
Non-US Equities	22%	6.3%
Tactical Asset Allocation*	8%	4.2%
Absolute Return	15%	2.6%
Private Real Estate	10%	4.2%
Private Equity	3%	9.3%
Private Credit**	2%	4.5%

* Tactical Asset Allocation Strategies were assumed to be split 60% in Global Equity and 40% in Investment Grade Fixed Income.

** Private Credit was assumed to have similar expected returns, volatility, and correlations as High Yield Bonds.

Appendix A

Plan Provisions



This report was prepared solely for TriMet for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

Plan Provisions

Plan provisions used were based on the plan document restated effective July 1, 2013, as amended by Amendment 1 and the Working and Wage Agreement between TriMet and ATU 757 in effect from December 1, 2012 through November 30, 2016.

Name

Pension Plan for Bargaining Unit Employees of TriMet.

Effective Date

The Plan was originally adopted in 1979 and was last restated effective July 1, 2013.

Eligibility

All ATU 757 bargaining unit employees of TriMet (TriMet Union employees) hired before August 1, 2012. TriMet Union employees who transfer to a management position continue to earn service for vesting purposes and retirement eligibility. However, no additional benefits are earned for continuous service as a management employee.

TriMet Union employees hired on or after August 1, 2012 are not eligible to participate in this Plan.

Continuous Service

All periods of service during which the employee is a member of the bargaining unit represented by ATU 757, working either as a full-time employee or mini-run operator, is entitled to payment for services rendered to TriMet and is eligible to participate in this Plan. Continuous service includes service while serving as an officer of the ATU 757.

Continuous service is measured using elapsed time. Each twelve month period of continuous service equals one year of continuous service and partial years are based on the number of days worked divided by 365.25.

Vesting Service

All continuous service plus any period of service (not already counted as continuous service) when an employee is entitled to payment for services rendered to TriMet, excluding service preceding a permanent break in service.

Normal Retirement

(a) Eligibility

For participants who earn at least 10 years of vesting service, the Normal Retirement Age is determined from the following schedule:

<u>Severance from Service Date</u>	<u>Normal Retirement Age</u>
December 1, 1994 to November 30, 1998	62
December 1, 1998 to November 30, 2000	61
December 1, 2000 to November 30, 2002	60
December 1, 2002 to November 30, 2004	59
On or after December 1, 2004	58

(b) Benefit

The normal retirement benefit for participants retiring or terminating after February 1, 1992 is determined by multiplying continuous service times the benefit rate in effect on the date of retirement or termination of employment, whichever is earlier. Mini-run operators receive 75% of the benefit rate shown below.

<u>Effective Beginning</u>	<u>Benefit Rate</u>	<u>Effective Beginning</u>	<u>Benefit Rate</u>
February 1, 1992	\$ 42.00	September 1, 2004	\$ 62.45
September 1, 1992	43.26	September 1, 2005	64.33
September 1, 1993	44.13	September 1, 2006	66.26
September 1, 1994	44.57	September 1, 2007	68.25
September 1, 1995	47.02	September 1, 2008	70.84
September 1, 1996	48.43	September 1, 2009	72.96
September 1, 1997	50.27	February 1, 2010	72.96
September 1, 1998	51.93	February 1, 2011	75.52
September 1, 1999	53.49	February 1, 2012	78.97
September 1, 2000	55.49	February 1, 2013	78.97
September 1, 2001	57.15	February 1, 2014	78.97
September 1, 2002	58.87	February 1, 2015	81.34
September 1, 2003	60.64		

Beginning December 1, 2009, benefit rates are adjusted on February 1 each year by the amount of any specified general wage adjustment under the Working and Wage Agreement during the preceding twelve months.

A benefit derived from unused sick leave is added to the above benefit as described in (c) below.

(c) Unused Sick Leave

Vested participants who terminate after becoming eligible for early retirement will have unused accumulated sick leave up to the maximum accumulated sick leave converted to a monthly benefit at a rate of \$.25 per hour for each hour of unused accrued sick leave.

<u>Effective</u>	<u>Maximum Accumulated Sick Leave</u>
December 1, 1998	1,400 hours
December 1, 2003	1,450 hours
December 1, 2004	1,500 hours
December 1, 2005	1,550 hours
December 1, 2006	1,600 hours
December 1, 2007	1,650 hours
December 1, 2008	1,700 hours

Early Retirement

(a) Eligibility

A participant may retire prior to his normal retirement date if he has 10 years of vesting service and is at least 55 years of age.

30 & Out: From December 1, 2003 to December 1, 2009, an active participant may retire with unreduced benefits after he has earned 30 years of Continuous Service, regardless of age.



(b) Benefit

The monthly basic benefit is calculated as described in item 6 above. The benefit will be reduced according to the following table:

Age at Retirement / Effective	Percent Reduction from Normal Retirement Age				
	62	61	60	59	58
	12/01/1994 through 11/30/1998	12/01/1998 through 11/30/2000	12/01/2000 through 11/30/2002	12/01/2002 through 11/30/2004	12/01/2004 to Current
62	0.00%	0.00%	0.00%	0.00%	0.00%
61	10.12	0.00	0.00	0.00	0.00
60	19.06	9.95	0.00	0.00	0.00
59	26.98	18.76	9.78	0.00	0.00
58	34.01	26.59	18.48	9.63	0.00
57	40.28	33.56	26.22	18.21	9.49
56	45.87	39.78	33.13	25.87	17.97
55	50.87	45.34	39.31	32.72	25.55

Forms of Payment

- (a) Single Life Annuity
- (b) 66 2/3% Joint and Survivor Annuity

Disability Benefit

(a) Eligibility

An active participant who becomes disabled after 10 years of continuous service may receive a disability benefit if he becomes permanently disabled from performing the participant's occupation while employed with TriMet prior to reaching Social Security retirement age (62). Disability benefits are paid from the Plan until the participant reaches age 62.

(b) Benefit

A benefit payable during the period of disability is determined from the table below. If the participant is entitled to disability benefits under Social Security, the benefits shown below are doubled.

Effective	10 Years of Continuous Service	15 Years of Continuous Service	20 Years of Continuous Service
February 1, 1992	\$388.60	\$468.38	\$544.07
February 1, 1993	400.26	482.43	560.39
February 1, 1994	408.27	492.08	571.60
February 1, 1995	434.80	524.06	608.75
February 1, 1996	441.76	532.45	618.49
February 1, 1997	457.22	551.08	640.14
February 1, 1998	472.31	569.27	661.26
February 1, 1999	481.76	580.66	674.49
February 1, 2000	502.72	605.92	703.83
February 1, 2001	519.71	626.40	727.62
February 1, 2002	533.90	643.50	747.48
February 1, 2003	545.01	656.88	763.03



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Effective	10 Years of Continuous Service	15 Years of Continuous Service	20 Years of Continuous Service
February 1, 2004	569.92	686.90	797.90
February 1, 2005	586.50	706.89	821.12
February 1, 2006	602.28	725.91	843.21
February 1, 2007	620.47	747.83	868.67
February 1, 2008	643.37	775.42	900.72
February 1, 2009	669.62	807.06	937.47
February 1, 2010	674.51	812.95	944.31
February 1, 2011	698.19	841.49	977.46
February 1, 2012	730.10	879.95	1,022.13
May 1, 2013	745.43	898.43	1,043.59
May 1, 2014	755.64	910.74	1,057.89
May 1, 2015	766.98	924.40	1,073.76

Disability benefits increase at the same time and percentage as post-retirement benefit increases for participants who retired before August 1, 2012.

The disabled participant’s retirement benefit at age 62 is calculated using service that includes continuous service during disability as if the participant remained in active employment from the date of disability to age 62, and the benefit rate in effect at age 62.

Vesting

A participant who terminates employment with at least ten years of vesting service as of the date of termination will be 100% vested.

Contributions

Contributions are made to the Trust Fund by TriMet. There are no participant contributions. The Working and Wage Agreement between the ATU and TriMet establishes a minimum amortization period of 40 years. The necessary amount will be determined in accordance with accepted actuarial principles.

Pre-retirement Death Benefit

(a) Married Employee or Domestic Partner

If a vested participant, the participant’s spouse or domestic partner will receive 50% of the accrued benefit. The benefit is paid to the spouse when the spouse attains age 62 (or, if later, the date of the participant’s death). The payment to the domestic partner must commence no later than the December 31 of the calendar year following the participant’s death. If the domestic partner is younger than age 62, the benefit is actuarially reduced to reflect the age of the domestic partner on the date of benefit commencement.

(b) Disability

If a participant receiving disability benefits dies on or after age 55 but prior to age 62, the surviving spouse or domestic partner may elect to receive either the benefits in (a) above or the survivor portion of the 66 2/3% joint and survivor annuity.



Post-Retirement Benefit Increases

Prior to August 1, 2012, post-retirement benefits were increased each February 1 by the aggregate amount of any specified general wage adjustment under the Working and Wage Agreement during the preceding twelve months.

Effective August 1, 2012, post-retirement benefits are increased each May 1 during the period of the agreement as follows:

- For participants who retired before August 1, 2012, the post-retirement benefit increase is 100% of the percentage increase in the U.S. Urban Wage Earners and Clerical Workers Consumer Price Index (CPI-W) (annual average) for the previous calendar year. Annual increases will not be more than 7% per year.
- For participants who retire on or after August 1, 2012, the post-retirement benefit increase is 90% of the percentage increase in the U.S. Urban Wage Earners and Clerical Workers Consumer Price Index (CPI-W) (annual average) for the previous calendar year. Annual increases will not be more than 7% per year.

Plan Amendments since the Prior Valuation

Amendment 1 made technical changes relating to leased employees, IRC Section 415 limits and Qualified Domestic Relations Orders.

Appendix B

Actuarial Assumptions and Cost Methods



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Actuarial Assumptions and Cost Method

This section of the report describes the actuarial procedures and assumptions used in this valuation. These procedures and assumptions have been chosen on the basis of recent experience of the Plan, published actuarial tables and on current and future expectations. Please see the Plan's 2013 Experience Study dated February 14, 2014, and letter regarding the assumptions for the 2015 Actuarial Valuation dated May 12, 2015 for additional detail regarding the development of these assumptions.

The assumptions are intended to estimate the future experience of the participants of the Plan and of the Plan itself in areas which affect the projected benefit flow and anticipated investment earnings. Any variations in future experience from that expected from these assumptions will result in corresponding changes in the estimated costs of the Plan's benefits.

Records and Data

The data used in the valuation consist of employee data and financial information furnished by TriMet. All data for valuation purposes was accepted without audit.

Adjustment for Incomplete Data

If necessary, active participant records missing hire date are assumed to have a hire age equal to the average hire age of the active participants with complete data. Records missing spouse gender assume the spouse is the opposite sex of the participant. Records missing spouse date of birth assume females are two years younger than their spouses.

Actuarial Cost Method (Effective July 1, 2014)

The accruing costs of all benefits are measured by the individual entry age normal actuarial cost method. The normal cost expressed as a level percentage of payroll.

Under this method, the total actuarial present value of projected benefits is allocated over the service for each active participant from their date of entry into the Plan until their assumed date of exit from the Plan, as a level percent of payroll. This level percent times payroll is referred to as the normal cost, and is calculated for each active participant. It is calculated by dividing each participant's total actuarial present value of projected benefits at entry age by the actuarial present value of projected salaries at entry age and multiplying this percentage by the participant's anticipated salary for the current plan year. The normal cost equals \$0 for non-active participants. The sum of the individual normal costs is the normal cost for the Plan.

The Plan's total pension liability is equal to the total actuarial present value of projected benefits less the actuarial present value of future normal costs. Net pension liability is equal to total pension liability minus the Plan's fiduciary net position.

Fiduciary Net Position (effective July 1, 2014)

The Plan's fiduciary net position is equal to the fair market value of the Plan's assets, as provided by TriMet.

Long-term Expected Return on Plan Assets (effective July 1, 2014)

7.00% per annum compounded annually, net of investment management and custodial fees.

Inflation (effective July 1, 2015)

2.75% per annum compounded annually.



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Administrative Expenses (effective July 1, 2015)

Annual administrative expenses of \$300,000 payable midyear are assumed.

Annualized Pay (effective July 1, 2014)

Rates of pay for each active Union participant and salaries for each Management Transfer are provided by TriMet. Annual pay for active Union participants are calculated by multiplying the pay rate by 2,080 hours (40 hours per week) for full time participants and 1,560 hours (30 hours per week) for mini-run participants.

Pay Increases (effective July 1, 2015)

Annualized pay is assumed to increase 2.75% per year.

Pre- and Post-Retirement Benefit Increases

The benefit multiplier and temporary disability benefits for active participants who terminate, retire or become disabled after the valuation date are assumed to increase with inflation (2.75%).

For terminations, disabilities and retirements assumed to occur in the 2015-2016 plan year, the benefit rates used in the valuation are as shown below.

	<u>2015 – 2016</u>
Benefit Multiplier	\$ 83.58
Disability Benefit	
10 Years of Continuous Service	\$ 788.07
15 Years of Continuous Service	949.82
20 Years of Continuous Service	1,103.29

Benefits for participants who retired prior to August 1, 2012 are assumed to increase 2.75% per year into the future.

Benefits for participants who retire on or after August 1, 2012 are assumed to increase 2.475% (90% of 2.75%) per year into the future.

Mortality

Healthy Lives Mortality (effective July 1, 2010)

RP-2000 Combined Healthy Mortality Table with Blue Collar Adjustment for males and females, projected to 2010 using Scale AA. This assumption includes a margin for future mortality improvement based on recent Plan experience.

Disabled Lives Mortality (effective July 1, 2014)

Males: Annual rates of mortality are based on 75% of the Post-1994 Disability Mortality developed by the IRS (in IRS Revenue Ruling 96-7) for participants who become eligible for Social Security disability benefits, plus 25% of the RP-2000 Combined Healthy Mortality Table with Blue Collar Adjustment for males.

Females: Annual rates of mortality are based on 75% of the Post-1994 Disability Mortality developed by the IRS (in IRS Revenue Ruling 96-7) for participants who become eligible for Social Security

disability benefits, plus 25% of the RP-2000 Combined Healthy Mortality Table with Blue Collar Adjustment for females.

This assumption includes a margin for future mortality improvement based on recent Plan experience.

Future Service Credits

Active and disabled participants are assumed to earn one year of vesting service and one year of continuous service credit each year into the future. Management transfers are assumed to earn one year vesting service and no continuous service each year in the future.

Mini-Run to Full Time (effective July 1, 2014)

Active mini-run participants are assumed to transfer to full time based on the following schedule:

<u>Years of Vesting Service</u>	<u>Annual Rate</u>
Less than 4	40%
4 or more	5%

Form of Benefit (effective July 1, 2014)

All non-retired participants with a spouse or domestic partner are assumed to elect the following form of payment at retirement:

<u>Probability</u>	<u>Form of Payment</u>
33 1/3%	Single Life Annuity
66 2/3%	66 2/3% Joint & Survivor Annuity

Retired participants are valued according to the benefit form elected at retirement.

Retirement from Active Status (effective July 1, 2014)

All active participants and management transfers are assumed to retire by age 70. A certain percentage of active participants are assumed to elect retirement beginning at age 55. The rates of retirement are as follows:

<u>Age</u>	<u>Annual Rate</u>	<u>Age</u>	<u>Annual Rate</u>
55 - 56	4.0%	63	20.0%
57	7.5	64	25.0
58 - 60	11.0	65	30.0
61	20.0	66 - 69	40.0
62	35.0	70	100.0

Retirement from Inactive Status

Terminated vested participants are assumed to retire at their earliest unreduced retirement age. Disabled participants are assumed to retire at age 62.



Disablement (effective July 1, 2014)

70% of the 1985 Pension Disability Table – Class 3 – Unisex (for nonhazardous light manual workers). Sample rates of disablement used in this valuation are illustrated below.

<u>Age</u>	Number of Participants Becoming Disabled During the Year (per 1,000 Actives)
30	2
35	3
40	4
45	6
50	9
55	15
60	22

It is assumed that 75% of disabled participants will become eligible for Social Security disability benefits.

Tabular disability benefits are assumed to be paid to age 62. At age 62, the benefit is converted to a retirement benefit based on the participant’s projected service and projected benefit level at age 62.

Disabled participants who have not yet retired are assumed to have fully accrued their projected age 62 retirement benefit at the date of their disability.

Withdrawal (effective July 1, 2014)

Participants are assumed to leave active employment for reasons other than retirement, disability and death. Sample withdrawal rates are shown below:

<u>Years of Vesting Service</u>	Number of Participants Withdrawing During the Year (per 1,000 Actives)	
	<u>Males</u>	<u>Females</u>
Less than 1	50	140
1-6	25	30
7-9	15	30
10 and more	5	10



Unused Sick Leave Benefits (effective July 1, 2014)

Active participants are assumed to accumulate a percentage of the maximum accumulated sick leave hours in effect at retirement, based on the following schedule:

<u>Years of Vesting Service</u>	<u>Sick Hours Percentage</u>
Less than 10	0%
10	20%
11 – 15	25%
16 – 18	35%
19 – 20	40%
21 – 23	50%
24 and more	55%

Active Management Transfers are not assumed to return to the Union Plan following their transfer date and are not assumed to receive the unused sick leave benefit. (effective July 1, 2012)

The schedule of maximum accumulated sick leave hours is shown in Appendix A.

Spouse’s Age (effective July 1, 2014)

Females are assumed to be two years younger than their spouses or domestic partners.

Probability of Marriage/Domestic Partner (effective July 1, 2014)

66 2/3% of participants are assumed to be married or have a domestic partner.

Annualization of Benefits (effective July 1, 2015)

Benefits for participants who retired prior to August 1, 2012 are annualized using a factor of 12.055 to incorporate the anticipated 2.75% post-retirement benefit increase occurring May 1.

Benefits for participants who retire on or after August 1, 2012 annualized using a factor of 12.0495 to incorporate 90% of the anticipated 2.75% retiree post-retirement benefit increase occurring May 1.

Changes in Actuarial Methods and Assumptions

The inflation assumption was lowered from 3.00% to 2.75% to reflect updated economic expectations.

The assumption for future pay increases was lowered from 3.00% to 2.75% per year to reflect updated economic expectations.

Assumed pre- and post-retirement benefit increases were updated to reflect the change in the inflation assumption.

The factors used to annualize benefits were updated to reflect the change in the inflation assumption.

Anticipated administrative expenses were increased from \$275,000 to \$300,000 based on recent plan experience and future expectations.



Appendix C

Participant Information



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Participant Information

The current actuarial valuation was based upon the participant data provided by TriMet.

The following table shows the number of participants included in the current actuarial valuation and the comparable numbers from the previous valuation.

	<u>July 1, 2015</u>	<u>July 1, 2014</u>	<u>Change</u>
Active			
Vested Participants	1,055	1,120	-5.8%
Non-Vested Participants	651	697	-6.6%
Management Transfers*	<u>64</u>	<u>60</u>	<u>6.7%</u>
TOTAL ACTIVE	1,770	1,877	-5.7%
Inactive			
Retirees & Beneficiaries**	1,611	1,518	6.1%
Vested Terminations***	<u>133</u>	<u>140</u>	<u>-5.0%</u>
TOTAL INACTIVE	1,744	1,658	5.2%
TOTAL PARTICIPANTS	3,514	3,535	-0.6%

More detailed information on current plan participants is shown on the following pages.

* *These participants no longer accrue continuous service under the Plan but continue to accrue service for vesting purposes.*

** *Includes participants receiving a disability benefit.*

*** *Includes deferred beneficiaries.*

The following is a summary of the significant data for the participants included in this valuation, together with comparable figures from the last two years.

	July 1, 2015	July 1, 2014	July 1, 2013
Active Full-Time Participants			
Number	1580	1,674	1,759
Average Age	51.6	51.1	50.7
Average Years of Continuous Service	14.8	14.2	13.6
Active Mini-Run Participants			
Number	126	143	179
Average Age	53.9	53.2	52.3
Average Years of Continuous Service	12.0	11.0	9.7
Management Transfers			
Number	64	60	61
Average Age	53.6	52.8	53.0
Vested Terminations (including deferred beneficiaries)			
Number	133	140	149
Average Age	53.1	53.2	53.4
Average Monthly Benefit payable at the Participant's applicable Normal Retirement Age	\$ 763	\$ 725	\$ 681
Retirees and Beneficiaries (including disabled)			
Number in pay status	1611	1,518	1,431
Average Age	68.7	68.4	68.0
Average Monthly Benefit	\$ 1,632	\$ 1,619	\$ 1,605

Active Participants

Summary by Age and Years of Continuous Service as of July 1, 2015

YEARS OF CONTINUOUS SERVICE

<u>AGE</u>	<u>UNDER 1</u>	<u>1 TO 4</u>	<u>5 TO 9</u>	<u>10 TO 14</u>	<u>15 TO 19</u>	<u>20 TO 24</u>
Under 25	0	1	0	0	0	0
25 to 29	0	20	5	0	0	0
30 to 34	0	36	34	3	0	0
35 to 39	0	27	52	22	10	0
40 to 44	0	33	61	23	42	6
45 to 49	0	25	72	46	77	34
50 to 54	0	32	75	57	73	55
55 to 59	0	26	66	48	85	55
60 to 64	0	10	50	45	68	40
65 & Up	0	2	24	23	27	19
Totals	0	212	439	267	382	209

YEARS OF CONTINUOUS SERVICE

<u>AGE</u>	<u>25 TO 29</u>	<u>30 TO 34</u>	<u>35 TO 39</u>	<u>40 AND OVER</u>	<u>ALL YEARS</u>
Under 25	0	0	0	0	1
25 to 29	0	0	0	0	25
30 to 34	0	0	0	0	73
35 to 39	0	0	0	0	111
40 to 44	0	0	0	0	165
45 to 49	4	0	0	0	258
50 to 54	24	8	0	0	324
55 to 59	44	23	6	0	353
60 to 64	30	21	12	0	276
65 & Up	5	11	5	4	120
Totals	107	63	23	4	1,706
Active Participants without Complete Data					0
Grand Total					1,706



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Active Management Transfers

Summary by Age and Years of Continuous Service as of July 1, 2015

YEARS OF CONTINUOUS SERVICE

<u>AGE</u>	<u>UNDER 1</u>	<u>1 TO 4</u>	<u>5 TO 9</u>	<u>10 TO 14</u>	<u>15 TO 19</u>	<u>20 TO 24</u>
Under 25	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0
30 to 34	0	0	1	0	0	0
35 to 39	0	0	2	1	1	0
40 to 44	0	0	0	2	1	0
45 to 49	0	0	1	0	1	3
50 to 54	0	0	2	2	3	8
55 to 59	0	0	0	1	3	1
60 to 64	0	0	1	0	2	3
65 & Up	0	0	0	0	0	0
Totals	0	0	7	6	11	15

YEARS OF CONTINUOUS SERVICE

<u>AGE</u>	<u>25 TO 29</u>	<u>30 TO 34</u>	<u>35 TO 39</u>	<u>40 AND OVER</u>	<u>ALL YEARS</u>
Under 25	0	0	0	0	0
25 to 29	0	0	0	0	0
30 to 34	0	0	0	0	1
35 to 39	0	0	0	0	4
40 to 44	0	0	0	0	3
45 to 49	1	0	0	0	6
50 to 54	5	0	0	0	20
55 to 59	3	3	3	0	14
60 to 64	3	1	3	1	14
65 & Up	0	0	1	1	2
Totals	12	4	7	2	64



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**Retirees and Beneficiaries
(July 1, 2015)**

Service Retirees

Age	Number	Total
		Monthly Benefit
Under 55	3	\$ 3,863
55 to 59	56	77,613
60 to 64	240	383,753
65 to 69	420	726,536
70 to 74	275	452,642
75 to 79	157	274,551
80 to 84	59	87,839
85 & Up	<u>40</u>	<u>79,215</u>
Total	1,250	\$ 2,086,012

Disability

Age	Number	Total
		Monthly Benefit
Under 55	33	\$ 56,458
55 to 59	42	76,086
60 to 64	48	87,446
65 to 69	34	72,933
70 to 74	21	43,279
75 to 79	0	0
80 to 84	0	0
85 & Up	<u>0</u>	<u>0</u>
Total	178	\$ 336,202

Survivors & Beneficiaries

Age	Number	Total
		Monthly Benefit
Under 55	4	\$ 5,624
55 to 59	15	18,679
60 to 64	24	25,237
65 to 69	32	34,166
70 to 74	40	44,132
75 to 79	27	27,654
80 to 84	21	21,225
85 & Up	<u>20</u>	<u>29,774</u>
Total	183	\$ 206,491



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**New Retirees and Disabilities
(July 1, 2015)**

Service Retirees*		
Age at Retirement	Number	Total Monthly Benefit
Under 55	0	\$ 0
55	1	536
56	1	2,134
57	1	797
58	6	12,506
59	6	8,991
60	7	8,221
61	3	3,749
62	25	38,544
63	11	15,394
64	6	9,252
65	7	12,910
66	11	14,637
67	2	4,236
68	2	3,506
69	1	925
70 & Up	<u>4</u>	<u>6,562</u>
Total	94	\$ 142,900

*Excludes beneficiaries and QDROs

Disability		
Age at Disability	Number	Total Monthly Benefit
Under 50	2	\$ 2,616
50	0	0
51	2	1,998
52	0	0
53	0	0
54	0	0
55	1	2,148
56	1	1,534
57	0	0
58	4	5,736
59	1	1,074
60	0	0
61	0	0
62	<u>0</u>	<u>0</u>
Total	11	\$ 15,106



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Vested Terminated Participants*
(July 1, 2015)

Age	Number	Total Monthly Benefit**
Under 40	2	\$ 1,082
40 to 44	13	13,468
45 to 49	17	17,481
50 to 54	44	43,278
55 to 59	43	36,511
60 & Up	<u>14</u>	<u>6,775</u>
Total	133	\$ 118,595

* *Includes deferred beneficiaries.*

** *Amounts shown are payable at the Participant's applicable Normal Retirement Age.*

Appendix D

Estimated Benefit Payments



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Projected Benefit Payments*
July 1, 2015

Fiscal Year Beginning July 1,	Benefit Payment	Fiscal Year Beginning July 1,	Benefit Payment	Fiscal Year Beginning July 1,	Benefit Payment
2015	\$32,797,698	2048	\$46,917,509	2081	\$1,151,480
2016	35,503,670	2049	44,879,350	2082	910,757
2017	38,069,814	2050	42,788,092	2083	712,431
2018	40,747,518	2051	40,676,777	2084	551,207
2019	43,326,119	2052	38,534,027	2085	421,985
2020	45,746,485	2053	36,380,617	2086	319,851
2021	47,992,751	2054	34,228,602	2087	240,046
2022	50,253,758	2055	32,101,389	2088	178,419
2023	52,366,846	2056	30,004,818	2089	131,355
2024	54,286,366	2057	27,947,631	2090	95,780
2025	56,000,565	2058	25,945,606	2091	69,162
2026	57,712,618	2059	24,006,386	2092	49,439
2027	59,154,540	2060	22,132,880	2093	34,976
2028	60,411,120	2061	20,333,790	2094	24,441
2029	61,481,464	2062	18,611,929	2095	16,860
2030	62,370,092	2063	16,970,746	2096	11,487
2031	63,240,369	2064	15,411,447	2097	7,691
2032	63,793,281	2065	13,935,314	2098	5,089
2033	64,071,229	2066	12,543,568	2099	3,317
2034	64,112,491	2067	11,236,862	2100	2,132
2035	63,971,839	2068	10,015,757	2101	1,340
2036	63,629,855	2069	8,879,415	2102	832
2037	63,048,258	2070	7,826,775	2103	501
2038	62,296,041	2071	6,856,046	2104	297
2039	61,354,378	2072	5,965,218	2105	170
2040	60,212,515	2073	5,152,325	2106	88
2041	58,911,981	2074	4,415,333	2107	42
2042	57,457,666	2075	3,752,032	2108	23
2043	55,932,754	2076	3,160,064	2109	10
2044	54,300,327	2077	2,636,560	2110	3
2045	52,551,557	2078	2,177,806	2111	1
2046	50,731,109	2079	1,780,152		
2047	48,868,745	2080	1,439,624		

* This is a closed group projection of benefit payments based on the plan participants as of the valuation date.



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