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November 2015

Salem Housing Authority/2747
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated 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.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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November 2015
Salem Housing Authority/2747

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Salem Housing Authority -- #2747

November 2015

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Executive Summary

Milliman has prepared this report for Salem Housing Authority to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Salem Housing Authority.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Salem Housing Authority

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	14.36%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	4.24%	4.24%	4.24%
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**19.61%**	**13.35%**	**18.15%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**20.11%**	**13.78%**	**18.58%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 80%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	15.50%	15.50%
Minimum 2017-2019 Rate	12.40%	9.30%
Maximum 2017-2019 Rate	18.60%	21.70%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$8,872,284	$12,178,813	$3,306,529	73%	$2,575,374	128%
12/31/2010	9,319,449	12,223,232	2,903,783	76%	2,702,281	107%
12/31/2011	9,559,472	12,177,434	2,617,962	79%	2,434,177	108%
12/31/2012	10,563,890	12,164,784	1,600,894	87%	2,346,011	68%
12/31/2013	11,707,116	12,604,785	897,669	93%	2,063,886	43%
12/31/2014	12,030,592	14,947,652	2,917,060	80%	2,160,512	135%

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Salem Housing Authority

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	$2,917,060	$897,669
Allocated pooled OPSRP UAL	246,994	145,929
Side account	0	0
Net unfunded pension actuarial accrued liability	3,164,054	1,043,598
Combined valuation payroll	2,160,512	2,063,886
Net pension UAL as a percentage of payroll	146%	51%
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$17,173	$28,566

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$178,593	$164,205
Tier 1/Tier 2 valuation payroll	1,243,473	1,346,336
Tier 1/Tier 2 pension normal cost rate	14.36%	12.20%
Tier 1/ Tier 2 Actuarial accrued liability	$14,947,652	$12,604,785
Actuarial asset value	12,030,592	11,707,116
Tier 1/Tier 2 Unfunded actuarial accrued liability	2,917,060	897,669
Tier 1/ Tier 2 Funded status	80%	93%
Combined valuation payroll	$2,160,512	$2,063,886
Tier 1/Tier 2 UAL as a percentage of payroll	135%	43%
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	4.24%	3.30%
Tier 1/Tier 2 active members [1]	21	23
Tier 1/Tier 2 dormant members	15	16
Tier 1/Tier 2 retirees and beneficiaries	46	43

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	2,160,512	2,063,886
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$1,499,732	$1,504,314
2. Employer reserves	5,557,429	5,209,655
3. Benefits in force reserve	4,973,431	4,993,148
4. Total market value of assets *(1. + 2. + 3.)*	**$12,030,592**	**$11,707,116**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$11,707,116
2. Regular employer contributions	235,033
3. Benefit payments and expense	(821,399)
4. Adjustments [1]	88,403
5. Interest credited	821,439
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$12,030,592**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$0
Tier 1 General Service	70,618	75,793
Tier 2 Police & Fire	0	0
Tier 2 General Service	107,975	88,412
Total	**$178,593**	**$164,205**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$150,683	$178,593	$27,910

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$0	$0
▪ Tier 1 General Service	1,919,831	2,100,785
▪ Tier 2 Police & Fire	0	0
▪ Tier 2 General Service	1,867,252	1,465,480
▪ **Total Active Members**	**$3,787,083**	**$3,566,265**
Dormant Members	1,512,236	989,741
Retired Members and Beneficiaries	9,648,333	8,048,779
Total Actuarial Accrued Liability	**$14,947,652**	**$12,604,785**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$13,190,849	$14,947,652	$1,756,803

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$14,947,652	$12,604,785
2. Actuarial value of assets	12,030,592	11,707,116
3. Unfunded accrued liability *(1. – 2.)*	2,917,060	897,669
4. Funded percentage *(2. ÷ 1.)*	80%	93%
5. Combined valuation payroll	$2,160,512	$2,063,886
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	135%	43%

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	$897,669	$64,973	$66,889	$899,585	$67,385
December 31, 2014	N/A	N/A	N/A	$2,017,475	$145,982
Total				**$2,917,060**	**$213,367**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$12,604,785
b. Normal cost at December 31, 2013	164,205
c. Benefit payments during 2014	(815,073)
d. Interest at 7.75% to December 31, 2014	951,650
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	12,905,567
f. Change in actuarial accrued liability due to assumption, method, and plan changes	1,756,803
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	14,662,370
2. Actuarial accrued liability at December 31, 2014	14,947,652
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	(285,282)
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	11,707,116
b. Contributions for 2014[1]	235,033
c. Benefit payments and expenses during 2014	(821,399)
d. Interest at 7.75% to December 31, 2014	884,580
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	12,005,330
5. Actuarial value of assets at December 31, 2014	12,030,592
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	25,262
7. Total actuarial gain/(loss) *(3. + 6.)*	**($260,020)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**$897,669**
2. Expected increase	2,568
3. Liability (gain)/loss	285,282
4. Asset (gain)/loss	(25,262)
5. Change due to changes in assumptions, methods, and plan provisions	1,756,803
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**$2,917,060**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$0	$0	0.00%
Tier 1 General Service	70,618	389,457	18.13%	75,793	508,934	14.89%
Tier 2 Police & Fire	0	0	0.00%	0	0	0.00%
Tier 2 General Service	107,975	854,016	12.64%	88,412	837,402	10.56%
Total	**$178,593**	**$1,243,473**	**14.36%**	**$164,205**	**$1,346,336**	**12.20%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	$2,917,060	$897,669
2. Next year's Tier 1/Tier 2 UAL payment	213,367	64,973
3. Combined valuation payroll	2,160,512	2,063,886
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	9.88%	3.15%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	14.36%	12.20%
b. Tier 1/Tier 2 UAL rate	9.88%	3.15%
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	24.39%	15.50%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	15.50%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	15.50%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	3.10%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.10%
	c. Funded percentage	80%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.10%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	12.40%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	18.60%
7.	Advisory July 1, 2017 total pension rate, before adjustment	24.39%
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	(5.79%)
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	9.88%
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	4.09%
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	18.60%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	14.36%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	14.36%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	18.60%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	14.36%	12.20%
b. Tier 1/Tier 2 UAL rate	4.09%	3.15%
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c., minimum of 5.50%)*	18.60%	15.50%

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$389,457	$0	$389,457
Tier 2	854,016	0	854,016
Tier 1/Tier 2 valuation payroll	1,243,473	0	1,243,473
OPSRP valuation payroll	917,039	0	917,039
Combined valuation payroll	**$2,160,512**	**$0**	**$2,160,512**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	6	15	18	39	8	15	15	38
Police & Fire	0	0	0	0	0	0	0	0
Total	6	15	18	39	8	15	15	38
Active Members with previous service segments with the employer								
General Service	5	6	N/A	11	5	6	N/A	11
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	5	6	N/A	11	5	6	N/A	11
Dormant Members								
General Service	5	10	4	19	5	11	4	20
Police & Fire	0	0	0	0	0	0	0	0
Total	5	10	4	19	5	11	4	20
Retired Members and Beneficiaries								
General Service	45	1	1	47	40	3	1	44
Police & Fire	0	0	0	0	0	0	0	0
Total	45	1	1	47	40	3	1	44
Grand Total Number of Members	**61**	**32**	**23**	**116**	**58**	**35**	**20**	**113**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39			3	1						**4**
40-44			3	1						**4**
45-49			2							**2**
50-54			2							**2**
55-59			1	1	1					**3**
60-64			1		1	2				**4**
65-69			1	1						**2**
70-74										
75+										
Total	**0**	**0**	**13**	**4**	**2**	**2**	**0**	**0**	**0**	**21**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34	1	9
35-39	2	405
40-44		
45-49	1	638
50-54	1	1,824
55-59	4	1,479
60-64	4	930
65-69	2	824
70-74		
75+		
Total	15	971

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54	1	1,215
55-59	3	1,074
60-64	10	1,146
65-69	19	1,572
70-74	7	1,071
75-79	4	1,502
80-84	2	2,215
85-89		
90-94		
95-99		
100+		
Total	46	1,385

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.
- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.
- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.
- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.
- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called "actuarial present value," the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer's accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer's accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer's accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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November 2015

Salmon Harbor-Douglas County/2675
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

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In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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November 2015
Salmon Harbor-Douglas County/2675

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Salmon Harbor-Douglas County -- #2675

November 2015

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Executive Summary

Milliman has prepared this report for Salmon Harbor-Douglas County to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Salmon Harbor-Douglas County.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Salmon Harbor-Douglas County

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	14.92%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	(3.51%)	(3.51%)	(3.51%)
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**12.42%**	**5.60%**	**10.40%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**12.92%**	**6.03%**	**10.83%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 94%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	8.41%	8.41%
Minimum 2017-2019 Rate	5.41%	2.41%
Maximum 2017-2019 Rate	11.41%	14.41%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$1,233,172	$1,251,589	$18,417	99%	$488,950	4%
12/31/2010	1,383,010	1,389,813	6,803	100%	503,210	1%
12/31/2011	1,432,878	1,451,916	19,038	99%	508,435	4%
12/31/2012	1,345,487	1,136,722	(208,765)	118%	382,708	(55%)
12/31/2013	1,410,640	1,283,678	(126,962)	110%	358,232	(35%)
12/31/2014	1,450,594	1,549,890	99,296	94%	396,567	25%

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Salmon Harbor-Douglas County

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	$99,296	($126,962)
Allocated pooled OPSRP UAL	45,336	25,329
Side account	0	0
Net unfunded pension actuarial accrued liability	144,632	(101,633)
Combined valuation payroll	396,567	358,232
Net pension UAL as a percentage of payroll	36%	(28%)
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$3,152	$4,958

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$36,515	$28,292
Tier 1/Tier 2 valuation payroll	244,766	218,292
Tier 1/Tier 2 pension normal cost rate	14.92%	12.96%
Tier 1/ Tier 2 Actuarial accrued liability	$1,549,890	$1,283,678
Actuarial asset value	1,450,594	1,410,640
Tier 1/Tier 2 Unfunded actuarial accrued liability	99,296	(126,962)
Tier 1/ Tier 2 Funded status	94%	110%
Combined valuation payroll	$396,567	$358,232
Tier 1/Tier 2 UAL as a percentage of payroll	25%	(35%)
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	(3.51%)	(4.55%)
Tier 1/Tier 2 active members [1]	5	5
Tier 1/Tier 2 dormant members	1	1
Tier 1/Tier 2 retirees and beneficiaries	8	8

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	396,567	358,232
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$98,936	$92,365
2. Employer reserves	864,060	793,658
3. Benefits in force reserve	487,598	524,617
4. Total market value of assets *(1. + 2. + 3.)*	**$1,450,594**	**$1,410,640**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$1,410,640
2. Regular employer contributions	11,630
3. Benefit payments and expense	(80,530)
4. Adjustments [1]	9,975
5. Interest credited	98,880
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$1,450,594**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$0
Tier 1 General Service	9,447	6,895
Tier 2 Police & Fire	0	0
Tier 2 General Service	27,068	21,397
Total	**$36,515**	**$28,292**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$30,705	$36,515	$5,810

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$0	$0
▪ Tier 1 General Service	238,302	156,711
▪ Tier 2 Police & Fire	0	0
▪ Tier 2 General Service	364,044	279,796
▪ **Total Active Members**	**$602,346**	**$436,507**
Dormant Members	1,616	1,507
Retired Members and Beneficiaries	945,928	845,664
Total Actuarial Accrued Liability	**$1,549,890**	**$1,283,678**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$1,382,335	$1,549,890	$167,555

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$1,549,890	$1,283,678
2. Actuarial value of assets	1,450,594	1,410,640
3. Unfunded accrued liability *(1. – 2.)*	99,296	(126,962)
4. Funded percentage *(2. ÷ 1.)*	94%	110%
5. Combined valuation payroll	$396,567	$358,232
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	25%	(35%)

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	($126,962)	($9,189)	($9,460)	($127,233)	($9,531)
December 31, 2014	N/A	N/A	N/A	$226,529	$16,391
Total				**$99,296**	**$6,860**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$1,283,678
b. Normal cost at December 31, 2013	28,292
c. Benefit payments during 2014	(79,910)
d. Interest at 7.75% to December 31, 2014	97,485
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	1,329,545
f. Change in actuarial accrued liability due to assumption, method, and plan changes	167,555
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	1,497,100
2. Actuarial accrued liability at December 31, 2014	1,549,890
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	(52,790)
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	1,410,640
b. Contributions for 2014[1]	11,630
c. Benefit payments and expenses during 2014	(80,530)
d. Interest at 7.75% to December 31, 2014	106,655
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	1,448,394
5. Actuarial value of assets at December 31, 2014	1,450,594
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	2,200
7. Total actuarial gain/(loss) *(3. + 6.)*	**($50,590)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**($126,962)**
2. Expected increase	8,113
3. Liability (gain)/loss	52,790
4. Asset (gain)/loss	(2,200)
5. Change due to changes in assumptions, methods, and plan provisions	167,555
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**$99,296**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$0	$0	0.00%
Tier 1 General Service	9,447	75,970	12.44%	6,895	60,851	11.33%
Tier 2 Police & Fire	0	0	0.00%	0	0	0.00%
Tier 2 General Service	27,068	168,796	16.04%	21,397	157,441	13.59%
Total	**$36,515**	**$244,766**	**14.92%**	**$28,292**	**$218,292**	**12.96%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	$99,296	($126,962)
2. Next year's Tier 1/Tier 2 UAL payment	6,860	(9,189)
3. Combined valuation payroll	396,567	358,232
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	1.73%	(2.57%)

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	14.92%	12.96%
b. Tier 1/Tier 2 UAL rate	1.73%	(2.57%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	16.80%	10.54%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	8.41%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	8.41%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	1.68%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
	c. Funded percentage	94%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	5.41%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	11.41%
7.	Advisory July 1, 2017 total pension rate, before adjustment	16.80%
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	(5.39%)
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	1.73%
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	(3.66%)
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	11.41%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	14.92%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	14.92%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	11.41%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	14.92%	12.96%
b. Tier 1/Tier 2 UAL rate	(3.66%)	(4.70%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c., minimum of 5.50%)*	11.41%	8.41%

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$75,970	$0	$75,970
Tier 2	168,796	0	168,796
Tier 1/Tier 2 valuation payroll	244,766	0	244,766
OPSRP valuation payroll	151,801	0	151,801
Combined valuation payroll	**$396,567**	**$0**	**$396,567**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	1	4	6	11	1	4	6	11
Police & Fire	0	0	0	0	0	0	0	0
Total	1	4	6	11	1	4	6	11
Active Members with previous service segments with the employer								
General Service	0	0	N/A	0	0	0	N/A	0
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	0	0	N/A	0	0	0	N/A	0
Dormant Members								
General Service	0	1	2	3	0	1	3	4
Police & Fire	0	0	0	0	0	0	0	0
Total	0	1	2	3	0	1	3	4
Retired Members and Beneficiaries								
General Service	7	1	0	8	7	1	0	8
Police & Fire	0	0	0	0	0	0	0	0
Total	7	1	0	8	7	1	0	8
Grand Total Number of Members	**8**	**6**	**8**	**22**	**8**	**6**	**9**	**23**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39			1							**1**
40-44			1							**1**
45-49				1						**1**
50-54										
55-59										
60-64										
65-69			1	1						**2**
70-74										
75+										
Total	**0**	**0**	**3**	**2**	**0**	**0**	**0**	**0**	**0**	**5**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44		
45-49		
50-54		
55-59		
60-64		
65-69	1	135
70-74		
75+		
Total	1	135

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59		
60-64	2	1,592
65-69	3	537
70-74	1	84
75-79	1	251
80-84	1	1,651
85-89		
90-94		
95-99		
100+		
Total	8	847

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.
- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.
- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.
- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.
- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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Milliman
111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
503 227 0634

November 2015

Siletz Rural Fire Protection District/2885
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

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In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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November 2015
Siletz Rural Fire Protection District/2885

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Siletz Rural Fire Protection District -- #2885

November 2015

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Executive Summary

Milliman has prepared this report for Siletz Rural Fire Protection District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Siletz Rural Fire Protection District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Siletz Rural Fire Protection District

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	17.01%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	0.15%	0.15%	0.15%
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**18.17%**	**9.26%**	**14.06%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**18.67%**	**9.69%**	**14.49%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 100%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	N/A	N/A
Minimum 2017-2019 Rate	N/A	N/A
Maximum 2017-2019 Rate	N/A	N/A

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$0	$0	$0	0%	$0	0%
12/31/2010	0	0	0	0%	0	0%
12/31/2011	0	0	0	0%	0	0%
12/31/2012	0	0	0	0%	0	0%
12/31/2013	0	0	0	0%	0	0%
12/31/2014	(20)	0	20	0%	135,428	0%

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Siletz Rural Fire Protection District

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	$20	$0
Allocated pooled OPSRP UAL	15,482	0
Side account	0	0
Net unfunded pension actuarial accrued liability	15,502	0
Combined valuation payroll	135,428	0
Net pension UAL as a percentage of payroll	11%	0%
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$1,076	$0

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$0	$0
Tier 1/Tier 2 valuation payroll	0	0
Tier 1/Tier 2 pension normal cost rate	17.01%	0.00%
Tier 1/ Tier 2 Actuarial accrued liability	$0	$0
Actuarial asset value	(20)	0
Tier 1/Tier 2 Unfunded actuarial accrued liability	20	0
Tier 1/ Tier 2 Funded status	0%	0%
Combined valuation payroll	$135,428	$0
Tier 1/Tier 2 UAL as a percentage of payroll	0%	0%
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	0.15%	0.00%
Tier 1/Tier 2 active members [1]	0	0
Tier 1/Tier 2 dormant members	0	0
Tier 1/Tier 2 retirees and beneficiaries	0	0

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	135,428	0
3. Amortization factor	10.118	0.000
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$0	$0
2. Employer reserves	(20)	0
3. Benefits in force reserve	0	0
4. Total market value of assets *(1. + 2. + 3.)*	**($20)**	**$0**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$0
2. Regular employer contributions	79
3. Benefit payments and expense	0
4. Adjustments [1]	(104)
5. Interest credited	6
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**($20)**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$0
Tier 1 General Service	0	0
Tier 2 Police & Fire	0	0
Tier 2 General Service	0	0
Total	**$0**	**$0**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$0	$0	$0

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$0	$0
▪ Tier 1 General Service	0	0
▪ Tier 2 Police & Fire	0	0
▪ Tier 2 General Service	0	0
▪ **Total Active Members**	**$0**	**$0**
Dormant Members	0	0
Retired Members and Beneficiaries	0	0
Total Actuarial Accrued Liability	**$0**	**$0**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$0	$0	$0

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$0	$0
2. Actuarial value of assets	(20)	0
3. Unfunded accrued liability *(1. – 2.)*	20	0
4. Funded percentage *(2. ÷ 1.)*	100%	0%
5. Combined valuation payroll	$135,428	$0
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	0%	0%

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2014	N/A	N/A	N/A	$20	$1
Total				**$20**	**$1**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$0
b. Normal cost at December 31, 2013	0
c. Benefit payments during 2014	0
d. Interest at 7.75% to December 31, 2014	0
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	0
f. Change in actuarial accrued liability due to assumption, method, and plan changes	0
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	0
2. Actuarial accrued liability at December 31, 2014	0
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	0
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	0
b. Contributions for 2014[1]	79
c. Benefit payments and expenses during 2014	0
d. Interest at 7.75% to December 31, 2014	3
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	82
5. Actuarial value of assets at December 31, 2014	(20)
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(101)
7. Total actuarial gain/(loss) *(3. + 6.)*	**($101)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**$0**
2. Expected increase	(81)
3. Liability (gain)/loss	0
4. Asset (gain)/loss	101
5. Change due to changes in assumptions, methods, and plan provisions	0
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**$20**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$0	$0	0.00%
Tier 1 General Service	0	0	0.00%	0	0	0.00%
Tier 2 Police & Fire	0	0	0.00%	0	0	0.00%
Tier 2 General Service	0	0	0.00%	0	0	0.00%
Total	**$0**	**$0**	**17.01%**	**$0**	**$0**	**0.00%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	$20	$0
2. Next year's Tier 1/Tier 2 UAL payment	1	0
3. Combined valuation payroll	135,428	0
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	0.00%	0.00%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	17.01%	14.24%
b. Tier 1/Tier 2 UAL rate	0.00%	0.00%
c. Multnomah Fire District #10 rate	0.15%	0.13%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	17.16%	14.37%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	17.16%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	17.16%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	N/A
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	N/A
	c. Funded percentage	N/A
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	N/A
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	N/A
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	N/A
7.	Advisory July 1, 2017 total pension rate, before adjustment	N/A
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	N/A
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	N/A
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	N/A
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	N/A
12.	Tier 1/Tier 2 retiree healthcare rate	N/A
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	N/A
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	N/A
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	N/A
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	N/A

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	17.01%	14.24%
b. Tier 1/Tier 2 UAL rate	0.00%	0.00%
c. Multnomah Fire District #10 rate	0.15%	0.13%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c., minimum of 5.50%)*	17.16%	14.37%

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$0	$0	$0
Tier 2	0	0	0
Tier 1/Tier 2 valuation payroll	0	0	0
OPSRP valuation payroll	0	135,428	135,428
Combined valuation payroll	**$0**	**$135,428**	**$135,428**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	2	2	0	0	0	0
Total	0	0	2	2	0	0	0	0
Active Members with previous service segments with the employer								
General Service	0	0	N/A	0	0	0	N/A	0
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	0	0	N/A	0	0	0	N/A	0
Dormant Members								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Retired Members and Beneficiaries								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Grand Total Number of Members	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**0**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20										
20-24										
25-29										
30-34										
35-39										
40-44										
45-49										
50-54										
55-59										
60-64										
65-69										
70-74										
75+										
Total	0	0	0	0	0	0	0	0	0	0

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75+		
Total		

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75-79		
80-84		
85-89		
90-94		
95-99		
100+		
Total		

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
503 227 0634

November 2015

Sisters-Camp Sherman Rural Fire Protection District/2701
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated 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.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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November 2015
Sisters-Camp Sherman Rural Fire Protection District/2701

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Sisters-Camp Sherman Rural Fire Protection District -- #2701

November 2015

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Executive Summary

Milliman has prepared this report for Sisters-Camp Sherman Rural Fire Protection District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Sisters-Camp Sherman Rural Fire Protection District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Sisters-Camp Sherman Rural Fire Protection District

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	19.82%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	5.75%	5.75%	5.75%
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**26.58%**	**14.86%**	**19.66%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**27.08%**	**15.29%**	**20.09%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 65%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	19.67%	19.67%
Minimum 2017-2019 Rate	15.74%	11.81%
Maximum 2017-2019 Rate	23.60%	27.53%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$1,935,927	$2,233,819	$297,892	87%	$1,135,656	26%
12/31/2010	2,273,163	2,884,837	611,674	79%	1,269,035	48%
12/31/2011	2,164,565	2,972,903	808,338	73%	879,705	92%
12/31/2012	2,517,320	3,313,831	796,511	76%	1,179,483	68%
12/31/2013	2,983,177	3,635,619	652,442	82%	989,618	66%
12/31/2014	2,883,709	4,420,367	1,536,658	65%	815,021	189%

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Sisters-Camp Sherman Rural Fire Protection District

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	$1,536,658	$652,442
Allocated pooled OPSRP UAL	93,175	69,972
Side account	0	0
Net unfunded pension actuarial accrued liability	1,629,833	722,414
Combined valuation payroll	815,021	989,618
Net pension UAL as a percentage of payroll	200%	73%
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$6,478	$13,697

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$81,575	$96,915
Tier 1/Tier 2 valuation payroll	411,653	615,687
Tier 1/Tier 2 pension normal cost rate	19.82%	15.74%
Tier 1/ Tier 2 Actuarial accrued liability	$4,420,367	$3,635,619
Actuarial asset value	2,883,709	2,983,177
Tier 1/Tier 2 Unfunded actuarial accrued liability	1,536,658	652,442
Tier 1/ Tier 2 Funded status	65%	82%
Combined valuation payroll	$815,021	$989,618
Tier 1/Tier 2 UAL as a percentage of payroll	189%	66%
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	5.75%	3.93%
Tier 1/Tier 2 active members [1]	4	6
Tier 1/Tier 2 dormant members	3	3
Tier 1/Tier 2 retirees and beneficiaries	7	5

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	815,021	989,618
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$190,825	$327,005
2. Employer reserves	1,356,090	1,939,444
3. Benefits in force reserve	1,336,794	716,728
4. Total market value of assets *(1. + 2. + 3.)*	**$2,883,709**	**$2,983,177**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$2,983,177
2. Regular employer contributions	99,317
3. Benefit payments and expense	(220,782)
4. Adjustments [1]	(185,591)
5. Interest credited	207,588
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$2,883,709**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$54,177	$57,584
Tier 1 General Service	0	0
Tier 2 Police & Fire	21,362	34,398
Tier 2 General Service	6,036	4,933
Total	**$81,575**	**$96,915**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$65,683	$81,575	$15,892

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$731,165	$706,865
▪ Tier 1 General Service	0	0
▪ Tier 2 Police & Fire	468,349	569,250
▪ Tier 2 General Service	95,033	74,931
▪ **Total Active Members**	**$1,294,547**	**$1,351,046**
Dormant Members	532,472	1,129,233
Retired Members and Beneficiaries	2,593,348	1,155,340
Total Actuarial Accrued Liability	**$4,420,367**	**$3,635,619**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$3,806,426	$4,420,367	$613,941

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$4,420,367	$3,635,619
2. Actuarial value of assets	2,883,709	2,983,177
3. Unfunded accrued liability *(1. – 2.)*	1,536,658	652,442
4. Funded percentage *(2. ÷ 1.)*	65%	82%
5. Combined valuation payroll	$815,021	$989,618
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	189%	66%

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	$652,442	$47,224	$48,616	$653,834	$48,976
December 31, 2014	N/A	N/A	N/A	$882,824	$63,880
Total				**$1,536,658**	**$112,856**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$3,635,619
b. Normal cost at December 31, 2013	96,915
c. Benefit payments during 2014	(219,081)
d. Interest at 7.75% to December 31, 2014	277,027
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	3,790,480
f. Change in actuarial accrued liability due to assumption, method, and plan changes	613,941
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	4,404,421
2. Actuarial accrued liability at December 31, 2014	4,420,367
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	(15,946)
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	2,983,177
b. Contributions for 2014[1]	99,317
c. Benefit payments and expenses during 2014	(220,782)
d. Interest at 7.75% to December 31, 2014	226,489
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	3,088,202
5. Actuarial value of assets at December 31, 2014	2,883,709
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(204,492)
7. Total actuarial gain/(loss) *(3. + 6.)*	**($220,438)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**$652,442**
2. Expected increase	49,837
3. Liability (gain)/loss	15,946
4. Asset (gain)/loss	204,492
5. Change due to changes in assumptions, methods, and plan provisions	613,941
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**$1,536,658**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$54,177	$230,096	23.55%	$57,584	$342,412	16.82%
Tier 1 General Service	0	0	0.00%	0	0	0.00%
Tier 2 Police & Fire	21,362	118,976	17.95%	34,398	213,677	16.10%
Tier 2 General Service	6,036	62,581	9.65%	4,933	59,598	8.28%
Total	**$81,575**	**$411,653**	**19.82%**	**$96,915**	**$615,687**	**15.74%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	$1,536,658	$652,442
2. Next year's Tier 1/Tier 2 UAL payment	112,856	47,224
3. Combined valuation payroll	815,021	989,618
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	13.85%	4.77%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	19.82%	15.74%
b. Tier 1/Tier 2 UAL rate	13.85%	4.77%
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	33.82%	20.66%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	19.67%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	19.67%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	3.93%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.93%
	c. Funded percentage	65%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	5.90%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	13.77%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	25.57%
7.	Advisory July 1, 2017 total pension rate, before adjustment	33.82%
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	(8.25%)
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	13.85%
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	5.60%
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	25.57%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	19.82%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	19.82%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	25.57%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	19.82%	15.74%
b. Tier 1/Tier 2 UAL rate	5.60%	3.78%
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c., minimum of 5.50%)*	25.57%	19.67%

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$0	$230,096	$230,096
Tier 2	62,581	118,976	181,557
Tier 1/Tier 2 valuation payroll	62,581	349,072	411,653
OPSRP valuation payroll	43,092	360,276	403,368
Combined valuation payroll	**$105,673**	**$709,348**	**$815,021**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	0	1	1	2	0	1	0	1
Police & Fire	2	1	5	8	3	2	5	10
Total	2	2	6	10	3	3	5	11
Active Members with previous service segments with the employer								
General Service	0	0	N/A	0	0	0	N/A	0
Police & Fire	0	1	N/A	1	0	1	N/A	1
Total	0	1	N/A	1	0	1	N/A	1
Dormant Members								
General Service	0	0	0	0	1	0	0	1
Police & Fire	2	1	1	4	2	0	1	3
Total	2	1	1	4	3	0	1	4
Retired Members and Beneficiaries								
General Service	1	0	0	1	0	0	0	0
Police & Fire	5	1	0	6	4	1	0	5
Total	6	1	0	7	4	1	0	5
Grand Total Number of Members	**10**	**5**	**7**	**22**	**10**	**5**	**6**	**21**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39			2							**2**
40-44										
45-49							1			**1**
50-54										
55-59					1					**1**
60-64										
65-69										
70-74										
75+										
Total	**0**	**0**	**2**	**0**	**1**	**0**	**1**	**0**	**0**	**4**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44	1	1,474
45-49	2	2,119
50-54		
55-59		
60-64		
65-69		
70-74		
75+		
Total	3	1,904

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59	2	4,230
60-64	1	6
65-69	2	2,108
70-74	1	1,171
75-79	1	338
80-84		
85-89		
90-94		
95-99		
100+		
Total	7	2,027

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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111 SW Fifth Avenue, Suite 3700
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503 227 0634

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Milliman
111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
503 227 0634

November 2015

South Lane County Fire and Rescue/2859
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated 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.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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Milliman

November 2015
South Lane County Fire and Rescue/2859

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

South Lane County Fire and Rescue -- #2859

November 2015

Secondary Employers

2827 Creswell Rural Fire Protection District

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Executive Summary

Milliman has prepared this report for South Lane County Fire and Rescue to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to South Lane County Fire and Rescue.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for South Lane County Fire and Rescue

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	20.93%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	11.33%	11.33%	11.33%
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**33.27%**	**20.44%**	**25.24%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**33.77%**	**20.87%**	**25.67%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 30%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	23.04%	23.04%
Minimum 2017-2019 Rate	18.43%	13.82%
Maximum 2017-2019 Rate	27.65%	32.26%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$817,056	$1,603,224	$786,168	51%	$1,367,464	57%
12/31/2010	943,572	1,891,427	947,855	50%	1,483,211	64%
12/31/2011	1,034,896	2,162,175	1,127,279	48%	1,340,704	84%
12/31/2012	1,027,376	2,784,912	1,757,536	37%	1,671,543	105%
12/31/2013	1,203,455	3,095,152	1,891,697	39%	1,700,151	111%
12/31/2014	1,196,903	4,052,766	2,855,863	30%	1,811,141	158%

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

South Lane County Fire and Rescue

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	$2,855,863	$1,891,697
Allocated pooled OPSRP UAL	207,053	120,211
Side account	0	0
Net unfunded pension actuarial accrued liability	3,062,916	2,011,908
Combined valuation payroll	1,811,141	1,700,151
Net pension UAL as a percentage of payroll	169%	118%
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$14,396	$23,532

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$142,493	$102,234
Tier 1/Tier 2 valuation payroll	680,893	600,321
Tier 1/Tier 2 pension normal cost rate	20.93%	17.03%
Tier 1/ Tier 2 Actuarial accrued liability	$4,052,766	$3,095,152
Actuarial asset value	1,196,903	1,203,455
Tier 1/Tier 2 Unfunded actuarial accrued liability	2,855,863	1,891,697
Tier 1/ Tier 2 Funded status	30%	39%
Combined valuation payroll	$1,811,141	$1,700,151
Tier 1/Tier 2 UAL as a percentage of payroll	158%	111%
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	11.33%	6.01%
Tier 1/Tier 2 active members [1]	7	6
Tier 1/Tier 2 dormant members	3	4
Tier 1/Tier 2 retirees and beneficiaries	8	7

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	1,811,141	1,700,151
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$51,495	$53,700
2. Employer reserves	217,619	477,643
3. Benefits in force reserve	927,789	672,112
4. Total market value of assets *(1. + 2. + 3.)*	**$1,196,903**	**$1,203,455**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$1,203,455
2. Regular employer contributions	112,672
3. Benefit payments and expense	(153,231)
4. Adjustments [1]	(56,530)
5. Interest credited	90,537
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$1,196,903**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$93,490	$73,933
Tier 1 General Service	0	0
Tier 2 Police & Fire	49,003	28,301
Tier 2 General Service	0	0
Total	**$142,493**	**$102,234**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$115,559	$142,493	$26,934

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$1,449,587	$1,039,656
▪ Tier 1 General Service	0	0
▪ Tier 2 Police & Fire	780,078	595,825
▪ Tier 2 General Service	0	0
▪ **Total Active Members**	**$2,229,665**	**$1,635,481**
Dormant Members	23,213	376,249
Retired Members and Beneficiaries	1,799,888	1,083,422
Total Actuarial Accrued Liability	**$4,052,766**	**$3,095,152**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$3,401,498	$4,052,766	$651,268

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$4,052,766	$3,095,152
2. Actuarial value of assets	1,196,903	1,203,455
3. Unfunded accrued liability *(1. – 2.)*	2,855,863	1,891,697
4. Funded percentage *(2. ÷ 1.)*	30%	39%
5. Combined valuation payroll	$1,811,141	$1,700,151
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	158%	111%

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	$1,891,697	$136,921	$140,957	$1,895,733	$142,002
December 31, 2014	N/A	N/A	N/A	$960,130	$69,474
Total				**$2,855,863**	**$211,476**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$3,095,152
b. Normal cost at December 31, 2013	102,234
c. Benefit payments during 2014	(152,051)
d. Interest at 7.75% to December 31, 2014	237,944
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	3,283,279
f. Change in actuarial accrued liability due to assumption, method, and plan changes	651,268
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	3,934,547
2. Actuarial accrued liability at December 31, 2014	4,052,766
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	(118,219)
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	1,203,455
b. Contributions for 2014[1]	112,672
c. Benefit payments and expenses during 2014	(153,231)
d. Interest at 7.75% to December 31, 2014	91,696
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	1,254,592
5. Actuarial value of assets at December 31, 2014	1,196,903
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(57,689)
7. Total actuarial gain/(loss) *(3. + 6.)*	**($175,908)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**$1,891,697**
2. Expected increase	136,990
3. Liability (gain)/loss	118,219
4. Asset (gain)/loss	57,689
5. Change due to changes in assumptions, methods, and plan provisions	651,268
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**$2,855,863**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$93,490	$410,690	22.76%	$73,933	$401,559	18.41%
Tier 1 General Service	0	0	0.00%	0	0	0.00%
Tier 2 Police & Fire	49,003	270,203	18.14%	28,301	198,762	14.24%
Tier 2 General Service	0	0	0.00%	0	0	0.00%
Total	**$142,493**	**$680,893**	**20.93%**	**$102,234**	**$600,321**	**17.03%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	$2,855,863	$1,891,697
2. Next year's Tier 1/Tier 2 UAL payment	211,476	136,921
3. Combined valuation payroll	1,811,141	1,700,151
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	11.68%	8.05%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	20.93%	17.03%
b. Tier 1/Tier 2 UAL rate	11.68%	8.05%
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	32.76%	25.23%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1. Current net Tier 1/Tier 2 pension contribution rate	23.04%
2. Employer contribution rate attributable to side accounts	0.00%
3. Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	23.04%
4. Size of rate collar	
a. 20% of current employer contribution rate *(20% x 3.)*	4.61%
b. Preliminary size of rate collar *(maximum of 3% or a.)*	4.61%
c. Funded percentage	30%
d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	9.22%
5. Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	13.82%
6. Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	32.26%
7. Advisory July 1, 2017 total pension rate, before adjustment	32.76%
8. Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	(0.50%)
9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	11.68%
10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	11.18%
11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	32.26%
12. Tier 1/Tier 2 retiree healthcare rate	0.50%
13. Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	20.93%
15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	20.93%
16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	32.26%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	20.93%	17.03%
b. Tier 1/Tier 2 UAL rate	11.18%	5.86%
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c., minimum of 5.50%)*	32.26%	23.04%

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$0	$410,690	$410,690
Tier 2	0	270,203	270,203
Tier 1/Tier 2 valuation payroll	0	680,893	680,893
OPSRP valuation payroll	104,118	1,026,130	1,130,248
Combined valuation payroll	**$104,118**	**$1,707,023**	**$1,811,141**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	0	0	2	2	0	0	2	2
Police & Fire	4	3	12	19	4	2	12	18
Total	4	3	14	21	4	2	14	20
Active Members with previous service segments with the employer								
General Service	0	0	N/A	0	0	0	N/A	0
Police & Fire	1	4	N/A	5	1	4	N/A	5
Total	1	4	N/A	5	1	4	N/A	5
Dormant Members								
General Service	0	1	0	1	0	1	0	1
Police & Fire	1	1	0	2	2	1	0	3
Total	1	2	0	3	2	2	0	4
Retired Members and Beneficiaries								
General Service	1	0	0	1	1	0	0	1
Police & Fire	6	1	0	7	5	1	0	6
Total	7	1	0	8	6	1	0	7
Grand Total Number of Members	**13**	**10**	**14**	**37**	**13**	**9**	**14**	**36**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39			1							**1**
40-44				1						**1**
45-49			1	1						**2**
50-54					1					**1**
55-59						2				**2**
60-64										
65-69										
70-74										
75+										
Total	**0**	**0**	**2**	**2**	**1**	**2**	**0**	**0**	**0**	**7**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44		
45-49	1	224
50-54		
55-59	2	36
60-64		
65-69		
70-74		
75+		
Total	3	98

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59	3	953
60-64	4	1,683
65-69	1	397
70-74		
75-79		
80-84		
85-89		
90-94		
95-99		
100+		
Total	8	1,248

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.
- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.
- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.
- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.
- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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503 227 0634

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Milliman
111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
503 227 0634

November 2015

Southwestern Polk County Rural Fire Protection District/2803
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated 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.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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November 2015
Southwestern Polk County Rural Fire Protection District/2803

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Southwestern Polk County Rural Fire Protection District -- #2803

November 2015

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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated 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.

Executive Summary

Milliman has prepared this report for Southwestern Polk County Rural Fire Protection District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Southwestern Polk County Rural Fire Protection District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Southwestern Polk County Rural Fire Protection District

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	17.01%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	(3.40%)	(3.40%)	(3.40%)
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**14.62%**	**5.71%**	**10.51%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**15.12%**	**6.14%**	**10.94%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 120%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	10.61%	10.61%
Minimum 2017-2019 Rate	7.61%	4.61%
Maximum 2017-2019 Rate	13.61%	16.61%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$74,517	$59,350	($15,167)	126%	$34,630	(44%)
12/31/2010	80,618	58,861	(21,757)	137%	36,315	(60%)
12/31/2011	67,029	59,440	(7,589)	113%	36,767	(21%)
12/31/2012	71,598	57,004	(14,594)	126%	37,423	(39%)
12/31/2013	76,824	56,412	(20,412)	136%	39,029	(52%)
12/31/2014	75,078	62,470	(12,608)	120%	40,494	(31%)

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Southwestern Polk County Rural Fire Protection District

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	($12,608)	($20,412)
Allocated pooled OPSRP UAL	4,629	2,760
Side account	0	0
Net unfunded pension actuarial accrued liability	(7,979)	(17,652)
Combined valuation payroll	40,494	39,029
Net pension UAL as a percentage of payroll	(20%)	(45%)
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$322	$540

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$0	$0
Tier 1/Tier 2 valuation payroll	0	0
Tier 1/Tier 2 pension normal cost rate	17.01%	14.24%
Tier 1/ Tier 2 Actuarial accrued liability	$62,470	$56,412
Actuarial asset value	75,078	76,824
Tier 1/Tier 2 Unfunded actuarial accrued liability	(12,608)	(20,412)
Tier 1/ Tier 2 Funded status	120%	136%
Combined valuation payroll	$40,494	$39,029
Tier 1/Tier 2 UAL as a percentage of payroll	(31%)	(52%)
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	(3.40%)	(3.63%)
Tier 1/Tier 2 active members [1]	0	0
Tier 1/Tier 2 dormant members	0	0
Tier 1/Tier 2 retirees and beneficiaries	2	2

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	40,494	39,029
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$0	$0
2. Employer reserves	42,876	41,827
3. Benefits in force reserve	32,202	34,996
4. Total market value of assets *(1. + 2. + 3.)*	**$75,078**	**$76,824**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$76,824
2. Regular employer contributions	(1,815)
3. Benefit payments and expense	(5,318)
4. Adjustments [1]	299
5. Interest credited	5,088
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$75,078**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$0
Tier 1 General Service	0	0
Tier 2 Police & Fire	0	0
Tier 2 General Service	0	0
Total	**$0**	**$0**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$0	$0	$0

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$0	$0
▪ Tier 1 General Service	0	0
▪ Tier 2 Police & Fire	0	0
▪ Tier 2 General Service	0	0
▪ **Total Active Members**	**$0**	**$0**
Dormant Members	0	0
Retired Members and Beneficiaries	62,470	56,412
Total Actuarial Accrued Liability	**$62,470**	**$56,412**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$55,661	$62,470	$6,809

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$62,470	$56,412
2. Actuarial value of assets	75,078	76,824
3. Unfunded accrued liability *(1. – 2.)*	(12,608)	(20,412)
4. Funded percentage *(2. ÷ 1.)*	120%	136%
5. Combined valuation payroll	$40,494	$39,029
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	(31%)	(52%)

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	($20,412)	($1,477)	($1,521)	($20,456)	($1,532)
December 31, 2014	N/A	N/A	N/A	$7,848	$568
Total				**($12,608)**	**($964)**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$56,412
b. Normal cost at December 31, 2013	0
c. Benefit payments during 2014	(5,277)
d. Interest at 7.75% to December 31, 2014	4,167
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	55,302
f. Change in actuarial accrued liability due to assumption, method, and plan changes	6,809
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	62,111
2. Actuarial accrued liability at December 31, 2014	62,470
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	(359)
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	76,824
b. Contributions for 2014[1]	(1,815)
c. Benefit payments and expenses during 2014	(5,318)
d. Interest at 7.75% to December 31, 2014	5,677
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	75,368
5. Actuarial value of assets at December 31, 2014	75,078
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(290)
7. Total actuarial gain/(loss) *(3. + 6.)*	**($649)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**($20,412)**
2. Expected increase	346
3. Liability (gain)/loss	359
4. Asset (gain)/loss	290
5. Change due to changes in assumptions, methods, and plan provisions	6,809
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**($12,608)**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$0	$0	0.00%
Tier 1 General Service	0	0	0.00%	0	0	0.00%
Tier 2 Police & Fire	0	0	0.00%	0	0	0.00%
Tier 2 General Service	0	0	0.00%	0	0	0.00%
Total	**$0**	**$0**	**17.01%**	**$0**	**$0**	**14.24%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	($12,608)	($20,412)
2. Next year's Tier 1/Tier 2 UAL payment	(964)	(1,477)
3. Combined valuation payroll	40,494	39,029
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	(2.38%)	(3.78%)

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	17.01%	14.24%
b. Tier 1/Tier 2 UAL rate	(2.38%)	(3.78%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	14.78%	10.61%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	10.61%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	10.61%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	2.12%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
	c. Funded percentage	120%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	7.61%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	13.61%
7.	Advisory July 1, 2017 total pension rate, before adjustment	14.78%
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	(1.17%)
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	(2.38%)
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	(3.55%)
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	13.61%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	17.01%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	17.01%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	13.61%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	17.01%	14.24%
b. Tier 1/Tier 2 UAL rate	(3.55%)	(3.78%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate	13.61%	10.61%
(a. + b. + c., minimum of 5.50%)		

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$0	$0	$0
Tier 2	0	0	0
Tier 1/Tier 2 valuation payroll	0	0	0
OPSRP valuation payroll	40,494	0	40,494
Combined valuation payroll	**$40,494**	**$0**	**$40,494**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	0	0	1	1	0	0	1	1
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	1	1	0	0	1	1
Active Members with previous service segments with the employer								
General Service	0	0	N/A	0	0	0	N/A	0
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	0	0	N/A	0	0	0	N/A	0
Dormant Members								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Retired Members and Beneficiaries								
General Service	0	1	0	1	0	1	0	1
Police & Fire	0	1	0	1	0	1	0	1
Total	0	2	0	2	0	2	0	2
Grand Total Number of Members	**0**	**2**	**1**	**3**	**0**	**2**	**1**	**3**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20										
20-24										
25-29										
30-34										
35-39										
40-44										
45-49										
50-54										
55-59										
60-64										
65-69										
70-74										
75+										
Total	0	0	0	0	0	0	0	0	0	0

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75+		
Total		

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59		
60-64		
65-69	1	83
70-74	1	348
75-79		
80-84		
85-89		
90-94		
95-99		
100+		
Total	2	216

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
503 227 0634

November 2015

Springfield Utility Board/2767
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

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In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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November 2015
Springfield Utility Board/2767

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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Milliman

ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Springfield Utility Board -- #2767

November 2015

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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated 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.

Executive Summary

Milliman has prepared this report for Springfield Utility Board to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Springfield Utility Board.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Springfield Utility Board

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	16.03%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	(4.62%)	(4.62%)	(4.62%)
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**12.42%**	**4.49%**	**9.29%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**12.92%**	**4.92%**	**9.72%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 98%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	8.41%	8.41%
Minimum 2017-2019 Rate	5.41%	2.41%
Maximum 2017-2019 Rate	11.41%	14.41%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$204,111	$219,285	$15,174	93%	$78,307	19%
12/31/2010	234,185	240,917	6,732	97%	77,075	9%
12/31/2011	248,311	257,708	9,397	96%	79,824	12%
12/31/2012	292,221	250,720	(41,501)	117%	83,649	(50%)
12/31/2013	336,955	291,087	(45,868)	116%	86,946	(53%)
12/31/2014	366,511	375,364	8,853	98%	90,502	10%

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Springfield Utility Board

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	$8,853	($45,868)
Allocated pooled OPSRP UAL	10,346	6,148
Side account	0	0
Net unfunded pension actuarial accrued liability	19,199	(39,720)
Combined valuation payroll	90,502	86,946
Net pension UAL as a percentage of payroll	21%	(46%)
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$719	$1,203

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$14,506	$11,744
Tier 1/Tier 2 valuation payroll	90,502	86,946
Tier 1/Tier 2 pension normal cost rate	16.03%	13.51%
Tier 1/ Tier 2 Actuarial accrued liability	$375,364	$291,087
Actuarial asset value	366,511	336,955
Tier 1/Tier 2 Unfunded actuarial accrued liability	8,853	(45,868)
Tier 1/ Tier 2 Funded status	98%	116%
Combined valuation payroll	$90,502	$86,946
Tier 1/Tier 2 UAL as a percentage of payroll	10%	(53%)
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	(4.62%)	(5.10%)
Tier 1/Tier 2 active members [1]	1	1
Tier 1/Tier 2 dormant members	0	0
Tier 1/Tier 2 retirees and beneficiaries	0	0

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	90,502	86,946
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$120,448	$112,197
2. Employer reserves	246,063	224,758
3. Benefits in force reserve	0	0
4. Total market value of assets *(1. + 2. + 3.)*	**$366,511**	**$336,955**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$336,955
2. Regular employer contributions	4,710
3. Benefit payments and expense	0
4. Adjustments [1]	(286)
5. Interest credited	25,133
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$366,511**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$0
Tier 1 General Service	14,506	11,744
Tier 2 Police & Fire	0	0
Tier 2 General Service	0	0
Total	**$14,506**	**$11,744**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$12,224	$14,506	$2,282

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$0	$0
▪ Tier 1 General Service	375,364	291,087
▪ Tier 2 Police & Fire	0	0
▪ Tier 2 General Service	0	0
▪ **Total Active Members**	**$375,364**	**$291,087**
Dormant Members	0	0
Retired Members and Beneficiaries	0	0
Total Actuarial Accrued Liability	**$375,364**	**$291,087**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$325,310	$375,364	$50,054

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$375,364	$291,087
2. Actuarial value of assets	366,511	336,955
3. Unfunded accrued liability *(1. – 2.)*	8,853	(45,868)
4. Funded percentage *(2. ÷ 1.)*	98%	116%
5. Combined valuation payroll	$90,502	$86,946
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	10%	(53%)

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	($45,868)	($3,320)	($3,418)	($45,966)	($3,443)
December 31, 2014	N/A	N/A	N/A	$54,819	$3,967
Total				**$8,853**	**$524**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$291,087
b. Normal cost at December 31, 2013	11,744
c. Benefit payments during 2014	0
d. Interest at 7.75% to December 31, 2014	23,014
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	325,845
f. Change in actuarial accrued liability due to assumption, method, and plan changes	50,054
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	375,899
2. Actuarial accrued liability at December 31, 2014	375,364
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	535
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	336,955
b. Contributions for 2014[1]	4,710
c. Benefit payments and expenses during 2014	0
d. Interest at 7.75% to December 31, 2014	26,297
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	367,961
5. Actuarial value of assets at December 31, 2014	366,511
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(1,450)
7. Total actuarial gain/(loss) *(3. + 6.)*	**($915)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**($45,868)**
2. Expected increase	3,752
3. Liability (gain)/loss	(535)
4. Asset (gain)/loss	1,450
5. Change due to changes in assumptions, methods, and plan provisions	50,054
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**$8,853**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$0	$0	0.00%
Tier 1 General Service	14,506	90,502	16.03%	11,744	86,946	13.51%
Tier 2 Police & Fire	0	0	0.00%	0	0	0.00%
Tier 2 General Service	0	0	0.00%	0	0	0.00%
Total	**$14,506**	**$90,502**	**16.03%**	**$11,744**	**$86,946**	**13.51%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	$8,853	($45,868)
2. Next year's Tier 1/Tier 2 UAL payment	524	(3,320)
3. Combined valuation payroll	90,502	86,946
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	0.58%	(3.82%)

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	16.03%	13.51%
b. Tier 1/Tier 2 UAL rate	0.58%	(3.82%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	16.76%	9.84%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	8.41%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	8.41%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	1.68%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
	c. Funded percentage	98%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	5.41%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	11.41%
7.	Advisory July 1, 2017 total pension rate, before adjustment	16.76%
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	(5.35%)
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	0.58%
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	(4.77%)
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	11.41%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	16.03%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	16.03%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	11.41%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	16.03%	13.51%
b. Tier 1/Tier 2 UAL rate	(4.77%)	(5.25%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c., minimum of 5.50%)*	11.41%	8.41%

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$90,502	$0	$90,502
Tier 2	0	0	0
Tier 1/Tier 2 valuation payroll	90,502	0	90,502
OPSRP valuation payroll	0	0	0
Combined valuation payroll	**$90,502**	**$0**	**$90,502**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	1	0	0	1	1	0	0	1
Police & Fire	0	0	0	0	0	0	0	0
Total	1	0	0	1	1	0	0	1
Active Members with previous service segments with the employer								
General Service	0	0	N/A	0	0	0	N/A	0
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	0	0	N/A	0	0	0	N/A	0
Dormant Members								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Retired Members and Beneficiaries								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Grand Total Number of Members	**1**	**0**	**0**	**1**	**1**	**0**	**0**	**1**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39										
40-44										
45-49										
50-54										
55-59					1					**1**
60-64										
65-69										
70-74										
75+										
Total	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75+		
Total		

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75-79		
80-84		
85-89		
90-94		
95-99		
100+		
Total		

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.
- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.
- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.
- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.
- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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November 2015

Sunrise Water Authority/2845
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

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In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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Milliman

November 2015
Sunrise Water Authority/2845

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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Milliman

ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Sunrise Water Authority -- #2845

November 2015

Secondary Employers

2586	Mt Scott Water District
2656	Damascus Water District

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Executive Summary

Milliman has prepared this report for Sunrise Water Authority to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Sunrise Water Authority.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Sunrise Water Authority

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	10.42%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	7.24%	7.24%	7.24%
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**18.67%**	**16.35%**	**21.15%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**19.17%**	**16.78%**	**21.58%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 71%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	14.66%	14.66%
Minimum 2017-2019 Rate	11.66%	8.66%
Maximum 2017-2019 Rate	17.66%	20.66%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$2,864,075	$3,700,299	$836,224	77%	$948,066	88%
12/31/2010	3,071,750	3,823,574	751,824	80%	931,592	81%
12/31/2011	2,709,139	3,974,445	1,265,306	68%	1,060,987	119%
12/31/2012	2,973,563	4,013,502	1,039,939	74%	1,130,346	92%
12/31/2013	3,222,903	4,026,330	803,427	80%	1,068,798	75%
12/31/2014	3,273,211	4,606,451	1,333,240	71%	1,191,064	112%

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Sunrise Water Authority

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	$1,333,240	$803,427
Allocated pooled OPSRP UAL	136,165	75,571
Side account	0	0
Net unfunded pension actuarial accrued liability	1,469,405	878,998
Combined valuation payroll	1,191,064	1,068,798
Net pension UAL as a percentage of payroll	123%	82%
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$9,467	$14,793

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$25,750	$21,045
Tier 1/Tier 2 valuation payroll	247,166	232,133
Tier 1/Tier 2 pension normal cost rate	10.42%	9.07%
Tier 1/ Tier 2 Actuarial accrued liability	$4,606,451	$4,026,330
Actuarial asset value	3,273,211	3,222,903
Tier 1/Tier 2 Unfunded actuarial accrued liability	1,333,240	803,427
Tier 1/ Tier 2 Funded status	71%	80%
Combined valuation payroll	$1,191,064	$1,068,798
Tier 1/Tier 2 UAL as a percentage of payroll	112%	75%
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	7.24%	5.59%
Tier 1/Tier 2 active members [1]	3	3
Tier 1/Tier 2 dormant members	6	8
Tier 1/Tier 2 retirees and beneficiaries	16	16

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	1,191,064	1,068,798
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$355,827	$340,973
2. Employer reserves	1,146,013	991,681
3. Benefits in force reserve	1,771,372	1,890,249
4. Total market value of assets *(1. + 2. + 3.)*	**$3,273,211**	**$3,222,903**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$3,222,903
2. Regular employer contributions	77,879
3. Benefit payments and expense	(292,555)
4. Adjustments [1]	42,729
5. Interest credited	222,255
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$3,273,211**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$0
Tier 1 General Service	0	0
Tier 2 Police & Fire	0	0
Tier 2 General Service	25,750	21,045
Total	**$25,750**	**$21,045**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$22,221	$25,750	$3,529

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$0	$0
▪ Tier 1 General Service	141,912	122,549
▪ Tier 2 Police & Fire	0	0
▪ Tier 2 General Service	621,495	487,009
▪ **Total Active Members**	**$763,407**	**$609,558**
Dormant Members	406,628	369,756
Retired Members and Beneficiaries	3,436,416	3,047,016
Total Actuarial Accrued Liability	**$4,606,451**	**$4,026,330**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$4,098,515	$4,606,451	$507,936

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$4,606,451	$4,026,330
2. Actuarial value of assets	3,273,211	3,222,903
3. Unfunded accrued liability *(1. – 2.)*	1,333,240	803,427
4. Funded percentage *(2. ÷ 1.)*	71%	80%
5. Combined valuation payroll	$1,191,064	$1,068,798
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	112%	75%

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	$803,427	$58,152	$59,866	$805,141	$60,310
December 31, 2014	N/A	N/A	N/A	$528,099	$38,213
Total				**$1,333,240**	**$98,523**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$4,026,330
b. Normal cost at December 31, 2013	21,045
c. Benefit payments during 2014	(290,302)
d. Interest at 7.75% to December 31, 2014	301,607
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	4,058,680
f. Change in actuarial accrued liability due to assumption, method, and plan changes	507,936
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	4,566,616
2. Actuarial accrued liability at December 31, 2014	4,606,451
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	(39,835)
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	3,222,903
b. Contributions for 2014[1]	77,879
c. Benefit payments and expenses during 2014	(292,555)
d. Interest at 7.75% to December 31, 2014	241,456
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	3,249,684
5. Actuarial value of assets at December 31, 2014	3,273,211
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	23,528
7. Total actuarial gain/(loss) *(3. + 6.)*	**($16,307)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**$803,427**
2. Expected increase	5,570
3. Liability (gain)/loss	39,835
4. Asset (gain)/loss	(23,528)
5. Change due to changes in assumptions, methods, and plan provisions	507,936
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**$1,333,240**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$0	$0	0.00%
Tier 1 General Service	0	0	0.00%	0	0	0.00%
Tier 2 Police & Fire	0	0	0.00%	0	0	0.00%
Tier 2 General Service	25,750	247,166	10.42%	21,045	232,133	9.07%
Total	**$25,750**	**$247,166**	**10.42%**	**$21,045**	**$232,133**	**9.07%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	$1,333,240	$803,427
2. Next year's Tier 1/Tier 2 UAL payment	98,523	58,152
3. Combined valuation payroll	1,191,064	1,068,798
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	8.27%	5.44%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	10.42%	9.07%
b. Tier 1/Tier 2 UAL rate	8.27%	5.44%
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	18.84%	14.66%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1. Current net Tier 1/Tier 2 pension contribution rate	14.66%
2. Employer contribution rate attributable to side accounts	0.00%
3. Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	14.66%
4. Size of rate collar	
a. 20% of current employer contribution rate *(20% x 3.)*	2.93%
b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
c. Funded percentage	71%
d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5. Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	11.66%
6. Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	17.66%
7. Advisory July 1, 2017 total pension rate, before adjustment	18.84%
8. Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	(1.18%)
9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	8.27%
10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	7.09%
11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	17.66%
12. Tier 1/Tier 2 retiree healthcare rate	0.50%
13. Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	10.42%
15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	10.42%
16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	17.66%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	10.42%	9.07%
b. Tier 1/Tier 2 UAL rate	7.09%	5.44%
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c., minimum of 5.50%)*	17.66%	14.66%

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$0	$0	$0
Tier 2	247,166	0	247,166
Tier 1/Tier 2 valuation payroll	247,166	0	247,166
OPSRP valuation payroll	943,898	0	943,898
Combined valuation payroll	**$1,191,064**	**$0**	**$1,191,064**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	0	3	14	17	0	3	13	16
Police & Fire	0	0	0	0	0	0	0	0
Total	0	3	14	17	0	3	13	16
Active Members with previous service segments with the employer								
General Service	2	1	N/A	3	2	1	N/A	3
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	2	1	N/A	3	2	1	N/A	3
Dormant Members								
General Service	4	2	2	8	5	3	1	9
Police & Fire	0	0	0	0	0	0	0	0
Total	4	2	2	8	5	3	1	9
Retired Members and Beneficiaries								
General Service	15	1	0	16	15	1	0	16
Police & Fire	0	0	0	0	0	0	0	0
Total	15	1	0	16	15	1	0	16
Grand Total Number of Members	**21**	**7**	**16**	**44**	**22**	**8**	**14**	**44**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39			1							**1**
40-44				1						**1**
45-49			1							**1**
50-54										
55-59										
60-64										
65-69										
70-74										
75+										
Total	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**3**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44		
45-49	3	1,140
50-54	2	757
55-59		
60-64	1	53
65-69		
70-74		
75+		
Total	6	831

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59		
60-64	2	2,524
65-69	3	1,726
70-74	4	1,777
75-79	3	1,123
80-84	2	1,231
85-89	1	593
90-94	1	676
95-99		
100+		
Total	16	1,527

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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503 227 0634

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Milliman
111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
503 227 0634

November 2015

Sweet Home Cemetery/2643
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

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In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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November 2015
Sweet Home Cemetery/2643

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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Milliman

ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Sweet Home Cemetery -- #2643

November 2015

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Executive Summary

Milliman has prepared this report for Sweet Home Cemetery to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Sweet Home Cemetery.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Sweet Home Cemetery

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	16.43%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	3.26%	3.26%	3.26%
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**20.70%**	**12.37%**	**17.17%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**21.20%**	**12.80%**	**17.60%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 90%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	17.09%	17.09%
Minimum 2017-2019 Rate	13.67%	10.25%
Maximum 2017-2019 Rate	20.51%	23.93%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$542,212	$681,951	$139,739	80%	$108,913	128%
12/31/2010	612,989	739,059	126,070	83%	111,990	113%
12/31/2011	350,642	511,257	160,615	69%	27,288	589%
12/31/2012	388,006	464,278	76,272	84%	84,731	90%
12/31/2013	441,442	485,592	44,150	91%	107,083	41%
12/31/2014	415,137	462,736	47,599	90%	114,408	42%

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Sweet Home Cemetery

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	$47,599	$44,150
Allocated pooled OPSRP UAL	13,079	7,571
Side account	0	0
Net unfunded pension actuarial accrued liability	60,678	51,721
Combined valuation payroll	114,408	107,083
Net pension UAL as a percentage of payroll	53%	48%
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$909	$1,482

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$6,376	$5,283
Tier 1/Tier 2 valuation payroll	38,802	37,849
Tier 1/Tier 2 pension normal cost rate	16.43%	13.96%
Tier 1/ Tier 2 Actuarial accrued liability	$462,736	$485,592
Actuarial asset value	415,137	441,442
Tier 1/Tier 2 Unfunded actuarial accrued liability	47,599	44,150
Tier 1/ Tier 2 Funded status	90%	91%
Combined valuation payroll	$114,408	$107,083
Tier 1/Tier 2 UAL as a percentage of payroll	42%	41%
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	3.26%	3.13%
Tier 1/Tier 2 active members [1]	1	1
Tier 1/Tier 2 dormant members	0	1
Tier 1/Tier 2 retirees and beneficiaries	1	2

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	114,408	107,083
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$68,805	$80,193
2. Employer reserves	187,187	172,428
3. Benefits in force reserve	159,145	188,821
4. Total market value of assets *(1. + 2. + 3.)*	**$415,137**	**$441,442**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$441,442
2. Regular employer contributions	17,435
3. Benefit payments and expense	(26,284)
4. Adjustments [1]	(46,450)
5. Interest credited	28,994
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$415,137**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$0
Tier 1 General Service	6,376	5,283
Tier 2 Police & Fire	0	0
Tier 2 General Service	0	0
Total	**$6,376**	**$5,283**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$5,465	$6,376	$911

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$0	$0
▪ Tier 1 General Service	153,999	123,027
▪ Tier 2 Police & Fire	0	0
▪ Tier 2 General Service	0	0
▪ **Total Active Members**	**$153,999**	**$123,027**
Dormant Members	0	58,192
Retired Members and Beneficiaries	308,737	304,373
Total Actuarial Accrued Liability	**$462,736**	**$485,592**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$405,115	$462,736	$57,621

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$462,736	$485,592
2. Actuarial value of assets	415,137	441,442
3. Unfunded accrued liability *(1. – 2.)*	47,599	44,150
4. Funded percentage *(2. ÷ 1.)*	90%	91%
5. Combined valuation payroll	$114,408	$107,083
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	42%	41%

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	$44,150	$3,196	$3,290	$44,244	$3,314
December 31, 2014	N/A	N/A	N/A	$3,355	$243
Total				**$47,599**	**$3,557**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$485,592
b. Normal cost at December 31, 2013	5,283
c. Benefit payments during 2014	(26,082)
d. Interest at 7.75% to December 31, 2014	36,827
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	501,620
f. Change in actuarial accrued liability due to assumption, method, and plan changes	57,621
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	559,241
2. Actuarial accrued liability at December 31, 2014	462,736
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	96,505
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	441,442
b. Contributions for 2014[1]	17,435
c. Benefit payments and expenses during 2014	(26,284)
d. Interest at 7.75% to December 31, 2014	33,869
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	466,462
5. Actuarial value of assets at December 31, 2014	415,137
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(51,325)
7. Total actuarial gain/(loss) *(3. + 6.)*	**$45,180**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**$44,150**
2. Expected increase	(8,992)
3. Liability (gain)/loss	(96,505)
4. Asset (gain)/loss	51,325
5. Change due to changes in assumptions, methods, and plan provisions	57,621
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**$47,599**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$0	$0	0.00%
Tier 1 General Service	6,376	38,802	16.43%	5,283	37,849	13.96%
Tier 2 Police & Fire	0	0	0.00%	0	0	0.00%
Tier 2 General Service	0	0	0.00%	0	0	0.00%
Total	**$6,376**	**$38,802**	**16.43%**	**$5,283**	**$37,849**	**13.96%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	$47,599	$44,150
2. Next year's Tier 1/Tier 2 UAL payment	3,557	3,196
3. Combined valuation payroll	114,408	107,083
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	3.11%	2.98%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	16.43%	13.96%
b. Tier 1/Tier 2 UAL rate	3.11%	2.98%
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	19.69%	17.09%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	17.09%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	17.09%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	3.42%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.42%
	c. Funded percentage	90%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.42%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	13.67%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	20.51%
7.	Advisory July 1, 2017 total pension rate, before adjustment	19.69%
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	0.00%
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	3.11%
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	3.11%
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	19.69%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	16.43%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	16.43%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	19.69%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	16.43%	13.96%
b. Tier 1/Tier 2 UAL rate	3.11%	2.98%
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c., minimum of 5.50%)*	19.69%	17.09%

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$38,802	$0	$38,802
Tier 2	0	0	0
Tier 1/Tier 2 valuation payroll	38,802	0	38,802
OPSRP valuation payroll	75,606	0	75,606
Combined valuation payroll	**$114,408**	**$0**	**$114,408**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	1	0	2	3	1	0	2	3
Police & Fire	0	0	0	0	0	0	0	0
Total	1	0	2	3	1	0	2	3
Active Members with previous service segments with the employer								
General Service	0	0	N/A	0	0	0	N/A	0
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	0	0	N/A	0	0	0	N/A	0
Dormant Members								
General Service	0	0	0	0	0	1	0	1
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1
Retired Members and Beneficiaries								
General Service	1	0	0	1	2	0	0	2
Police & Fire	0	0	0	0	0	0	0	0
Total	1	0	0	1	2	0	0	2
Grand Total Number of Members	**2**	**0**	**2**	**4**	**3**	**1**	**2**	**6**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39										
40-44										
45-49										
50-54										
55-59					1					**1**
60-64										
65-69										
70-74										
75+										
Total	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75+		
Total		

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59		
60-64	1	1,715
65-69		
70-74		
75-79		
80-84		
85-89		
90-94		
95-99		
100+		
Total	1	1,715

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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Milliman
111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
503 227 0634

November 2015

Tillamook 9-1-1/2722
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated 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.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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November 2015
Tillamook 9-1-1/2722

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Tillamook 9-1-1 -- #2722

November 2015

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Executive Summary

Milliman has prepared this report for Tillamook 9-1-1 to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Tillamook 9-1-1.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Tillamook 9-1-1

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	13.45%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	(4.98%)	(4.98%)	(4.98%)
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**9.48%**	**4.13%**	**8.93%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**9.98%**	**4.56%**	**9.36%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 110%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	5.47%	5.47%
Minimum 2017-2019 Rate	2.47%	0.00%
Maximum 2017-2019 Rate	8.47%	11.47%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$1,613,075	$1,537,544	($75,531)	105%	$522,840	(14%)
12/31/2010	1,755,810	1,582,886	(172,924)	111%	488,423	(35%)
12/31/2011	1,800,706	1,660,388	(140,318)	108%	561,258	(25%)
12/31/2012	2,056,968	1,641,966	(415,002)	125%	525,267	(79%)
12/31/2013	2,338,997	1,713,100	(625,897)	137%	530,964	(118%)
12/31/2014	2,358,457	2,145,269	(213,188)	110%	567,404	(38%)

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Tillamook 9-1-1

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	($213,188)	($625,897)
Allocated pooled OPSRP UAL	64,867	37,542
Side account	0	0
Net unfunded pension actuarial accrued liability	(148,321)	(588,355)
Combined valuation payroll	567,404	530,964
Net pension UAL as a percentage of payroll	(26%)	(111%)
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$4,510	$7,349

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$34,755	$27,902
Tier 1/Tier 2 valuation payroll	258,456	236,239
Tier 1/Tier 2 pension normal cost rate	13.45%	13.85%
Tier 1/ Tier 2 Actuarial accrued liability	$2,145,269	$1,713,100
Actuarial asset value	2,358,457	2,338,997
Tier 1/Tier 2 Unfunded actuarial accrued liability	(213,188)	(625,897)
Tier 1/ Tier 2 Funded status	110%	137%
Combined valuation payroll	$567,404	$530,964
Tier 1/Tier 2 UAL as a percentage of payroll	(38%)	(118%)
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	(4.98%)	(8.38%)
Tier 1/Tier 2 active members [1]	4	4
Tier 1/Tier 2 dormant members	5	5
Tier 1/Tier 2 retirees and beneficiaries	4	3

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	567,404	530,964
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$651,520	$695,563
2. Employer reserves	1,492,568	1,479,845
3. Benefits in force reserve	214,369	163,588
4. Total market value of assets *(1. + 2. + 3.)*	**$2,358,457**	**$2,338,997**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$2,338,997
2. Regular employer contributions	8,037
3. Benefit payments and expense	(35,405)
4. Adjustments [1]	(113,680)
5. Interest credited	160,507
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$2,358,457**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$0
Tier 1 General Service	24,006	19,565
Tier 2 Police & Fire	0	0
Tier 2 General Service	10,749	8,337
Total	**$34,755**	**$27,902**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$29,791	$34,755	$4,964

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$0	$0
▪ Tier 1 General Service	603,190	554,576
▪ Tier 2 Police & Fire	0	0
▪ Tier 2 General Service	286,424	230,767
▪ **Total Active Members**	**$889,614**	**$785,343**
Dormant Members	839,786	664,059
Retired Members and Beneficiaries	415,869	263,698
Total Actuarial Accrued Liability	**$2,145,269**	**$1,713,100**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$1,932,579	$2,145,269	$212,690

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$2,145,269	$1,713,100
2. Actuarial value of assets	2,358,457	2,338,997
3. Unfunded accrued liability *(1. – 2.)*	(213,188)	(625,897)
4. Funded percentage *(2. ÷ 1.)*	110%	137%
5. Combined valuation payroll	$567,404	$530,964
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	(38%)	(118%)

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	($625,897)	($45,302)	($46,638)	($627,233)	($46,984)
December 31, 2014	N/A	N/A	N/A	$414,045	$29,960
Total				**($213,188)**	**($17,024)**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$1,713,100
b. Normal cost at December 31, 2013	27,902
c. Benefit payments during 2014	(35,132)
d. Interest at 7.75% to December 31, 2014	132,485
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	1,838,355
f. Change in actuarial accrued liability due to assumption, method, and plan changes	212,690
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	2,051,045
2. Actuarial accrued liability at December 31, 2014	2,145,269
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	(94,224)
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	2,338,997
b. Contributions for 2014[1]	8,037
c. Benefit payments and expenses during 2014	(35,405)
d. Interest at 7.75% to December 31, 2014	180,212
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	2,491,841
5. Actuarial value of assets at December 31, 2014	2,358,457
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(133,384)
7. Total actuarial gain/(loss) *(3. + 6.)*	**($227,608)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**($625,897)**
2. Expected increase	(27,589)
3. Liability (gain)/loss	94,224
4. Asset (gain)/loss	133,384
5. Change due to changes in assumptions, methods, and plan provisions	212,690
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**($213,188)**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$0	$0	0.00%
Tier 1 General Service	24,006	145,409	16.51%	19,565	136,879	14.29%
Tier 2 Police & Fire	0	0	0.00%	0	0	0.00%
Tier 2 General Service	10,749	113,047	9.51%	8,337	99,360	8.39%
Total	**$34,755**	**$258,456**	**13.45%**	**$27,902**	**$236,239**	**11.81%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	($213,188)	($625,897)
2. Next year's Tier 1/Tier 2 UAL payment	(17,024)	(45,302)
3. Combined valuation payroll	567,404	530,964
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	(3.00%)	(8.53%)

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	13.45%	11.81%
b. Tier 1/Tier 2 UAL rate	(3.00%)	(8.53%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	10.60%	3.43%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	5.47%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	5.47%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	1.09%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
	c. Funded percentage	110%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	2.47%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	8.47%
7.	Advisory July 1, 2017 total pension rate, before adjustment	10.60%
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	(2.13%)
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	(3.00%)
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	(5.13%)
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	8.47%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	13.45%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	13.45%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	8.47%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	13.45%	13.85%
b. Tier 1/Tier 2 UAL rate	(5.13%)	(8.53%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate	8.47%	5.47%
(a. + b. + c., minimum of 5.50%)		

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$145,409	$0	$145,409
Tier 2	113,047	0	113,047
Tier 1/Tier 2 valuation payroll	258,456	0	258,456
OPSRP valuation payroll	308,948	0	308,948
Combined valuation payroll	**$567,404**	**$0**	**$567,404**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	2	2	9	13	2	2	8	12
Police & Fire	0	0	0	0	0	0	0	0
Total	2	2	9	13	2	2	8	12
Active Members with previous service segments with the employer								
General Service	4	4	N/A	8	5	4	N/A	9
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	4	4	N/A	8	5	4	N/A	9
Dormant Members								
General Service	5	0	0	5	5	0	0	5
Police & Fire	0	0	0	0	0	0	0	0
Total	5	0	0	5	5	0	0	5
Retired Members and Beneficiaries								
General Service	4	0	0	4	3	0	0	3
Police & Fire	0	0	0	0	0	0	0	0
Total	4	0	0	4	3	0	0	3
Grand Total Number of Members	**15**	**6**	**9**	**30**	**15**	**6**	**8**	**29**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34			1							**1**
35-39										
40-44			1							**1**
45-49					1					**1**
50-54					1					**1**
55-59										
60-64										
65-69										
70-74										
75+										
Total	**0**	**0**	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**4**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44	1	2,352
45-49	1	1,905
50-54	2	833
55-59	1	3,032
60-64		
65-69		
70-74		
75+		
Total	5	1,791

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54	1	599
55-59		
60-64	1	182
65-69	2	950
70-74		
75-79		
80-84		
85-89		
90-94		
95-99		
100+		
Total	4	670

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.
- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.
- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.
- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.
- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
503 227 0634

November 2015

Tillamook County Soil And Water Conservation District/2821
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated 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.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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November 2015
Tillamook County Soil And Water Conservation District/2821

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Tillamook County Soil And Water Conservation District -- #2821

November 2015

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Executive Summary

Milliman has prepared this report for Tillamook County Soil And Water Conservation District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Tillamook County Soil And Water Conservation District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Tillamook County Soil And Water Conservation District

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	12.97%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	2.31%	2.31%	2.31%
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**16.29%**	**11.42%**	**16.22%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**16.79%**	**11.85%**	**16.65%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 77%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	12.28%	12.28%
Minimum 2017-2019 Rate	9.28%	6.28%
Maximum 2017-2019 Rate	15.28%	18.28%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$160,075	$207,194	$47,119	77%	$74,841	63%
12/31/2010	224,527	251,501	26,974	89%	62,899	43%
12/31/2011	238,346	275,346	37,000	87%	58,527	63%
12/31/2012	285,362	301,823	16,461	95%	63,910	26%
12/31/2013	343,758	346,692	2,934	99%	73,887	4%
12/31/2014	390,400	504,206	113,806	77%	166,220	68%

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Tillamook County Soil And Water Conservation District

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	$113,806	$2,934
Allocated pooled OPSRP UAL	19,003	5,224
Side account	0	0
Net unfunded pension actuarial accrued liability	132,809	8,158
Combined valuation payroll	166,220	73,887
Net pension UAL as a percentage of payroll	80%	11%
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$1,321	$1,023

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$21,552	$8,749
Tier 1/Tier 2 valuation payroll	166,220	73,887
Tier 1/Tier 2 pension normal cost rate	12.97%	11.84%
Tier 1/ Tier 2 Actuarial accrued liability	$504,206	$346,692
Actuarial asset value	390,400	343,758
Tier 1/Tier 2 Unfunded actuarial accrued liability	113,806	2,934
Tier 1/ Tier 2 Funded status	77%	99%
Combined valuation payroll	$166,220	$73,887
Tier 1/Tier 2 UAL as a percentage of payroll	68%	4%
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	2.31%	0.44%
Tier 1/Tier 2 active members [1]	3	2
Tier 1/Tier 2 dormant members	3	3
Tier 1/Tier 2 retirees and beneficiaries	0	0

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	166,220	73,887
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$86,679	$81,769
2. Employer reserves	303,721	261,989
3. Benefits in force reserve	0	0
4. Total market value of assets *(1. + 2. + 3.)*	**$390,400**	**$343,758**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$343,758
2. Regular employer contributions	21,297
3. Benefit payments and expense	0
4. Adjustments [1]	(282)
5. Interest credited	25,627
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$390,400**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$0
Tier 1 General Service	9,555	1,466
Tier 2 Police & Fire	0	0
Tier 2 General Service	11,997	7,283
Total	**$21,552**	**$8,749**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$18,404	$21,552	$3,148

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$0	$0
▪ Tier 1 General Service	39,036	25,526
▪ Tier 2 Police & Fire	0	0
▪ Tier 2 General Service	388,766	221,194
▪ **Total Active Members**	**$427,802**	**$246,720**
Dormant Members	76,404	99,972
Retired Members and Beneficiaries	0	0
Total Actuarial Accrued Liability	**$504,206**	**$346,692**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$453,695	$504,206	$50,511

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$504,206	$346,692
2. Actuarial value of assets	390,400	343,758
3. Unfunded accrued liability *(1. – 2.)*	113,806	2,934
4. Funded percentage *(2. ÷ 1.)*	77%	99%
5. Combined valuation payroll	$166,220	$73,887
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	68%	4%

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	$2,934	$212	$219	$2,941	$220
December 31, 2014	N/A	N/A	N/A	$110,865	$8,022
Total				**$113,806**	**$8,242**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$346,692
b. Normal cost at December 31, 2013	8,749
c. Benefit payments during 2014	0
d. Interest at 7.75% to December 31, 2014	27,208
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	382,649
f. Change in actuarial accrued liability due to assumption, method, and plan changes	50,511
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	433,160
2. Actuarial accrued liability at December 31, 2014	504,206
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	(71,046)
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	343,758
b. Contributions for 2014[1]	21,297
c. Benefit payments and expenses during 2014	0
d. Interest at 7.75% to December 31, 2014	27,466
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	392,521
5. Actuarial value of assets at December 31, 2014	390,400
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(2,122)
7. Total actuarial gain/(loss) *(3. + 6.)*	**($73,168)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**$2,934**
2. Expected increase	(12,807)
3. Liability (gain)/loss	71,046
4. Asset (gain)/loss	2,122
5. Change due to changes in assumptions, methods, and plan provisions	50,511
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**$113,806**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$0	$0	0.00%
Tier 1 General Service	9,555	55,379	17.25%	1,466	7,208	20.34%
Tier 2 Police & Fire	0	0	0.00%	0	0	0.00%
Tier 2 General Service	11,997	110,841	10.82%	7,283	66,679	10.92%
Total	**$21,552**	**$166,220**	**12.97%**	**$8,749**	**$73,887**	**11.84%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	$113,806	$2,934
2. Next year's Tier 1/Tier 2 UAL payment	8,242	212
3. Combined valuation payroll	166,220	73,887
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	4.96%	0.29%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	12.97%	11.84%
b. Tier 1/Tier 2 UAL rate	4.96%	0.29%
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	18.08%	12.28%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1. Current net Tier 1/Tier 2 pension contribution rate	12.28%
2. Employer contribution rate attributable to side accounts	0.00%
3. Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	12.28%
4. Size of rate collar	
a. 20% of current employer contribution rate *(20% x 3.)*	2.46%
b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
c. Funded percentage	77%
d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5. Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	9.28%
6. Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	15.28%
7. Advisory July 1, 2017 total pension rate, before adjustment	18.08%
8. Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	(2.80%)
9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	4.96%
10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	2.16%
11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	15.28%
12. Tier 1/Tier 2 retiree healthcare rate	0.50%
13. Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	12.97%
15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	12.97%
16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	15.28%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	12.97%	11.84%
b. Tier 1/Tier 2 UAL rate	2.16%	0.29%
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c., minimum of 5.50%)*	15.28%	12.28%

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$55,379	$0	$55,379
Tier 2	110,841	0	110,841
Tier 1/Tier 2 valuation payroll	166,220	0	166,220
OPSRP valuation payroll	0	0	0
Combined valuation payroll	**$166,220**	**$0**	**$166,220**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	1	2	0	3	0	2	0	2
Police & Fire	0	0	0	0	0	0	0	0
Total	1	2	0	3	0	2	0	2
Active Members with previous service segments with the employer								
General Service	0	1	N/A	1	1	1	N/A	2
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	0	1	N/A	1	1	1	N/A	2
Dormant Members								
General Service	0	3	0	3	0	3	0	3
Police & Fire	0	0	0	0	0	0	0	0
Total	0	3	0	3	0	3	0	3
Retired Members and Beneficiaries								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Grand Total Number of Members	**1**	**6**	**0**	**7**	**1**	**6**	**0**	**7**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39										
40-44										
45-49										
50-54					1					**1**
55-59				1						**1**
60-64				1						**1**
65-69										
70-74										
75+										
Total	**0**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**3**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44	1	12
45-49		
50-54	1	544
55-59		
60-64	1	207
65-69		
70-74		
75+		
Total	3	255

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75-79		
80-84		
85-89		
90-94		
95-99		
100+		
Total		

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.
- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.
- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.
- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.
- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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Milliman
111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
503 227 0634

November 2015

Tillamook Fire District/2783
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

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In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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November 2015
Tillamook Fire District/2783

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Tillamook Fire District -- #2783

November 2015

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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated 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.

Executive Summary

Milliman has prepared this report for Tillamook Fire District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Tillamook Fire District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Tillamook Fire District

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	19.67%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	(3.83%)	(3.83%)	(3.83%)
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**16.85%**	**5.28%**	**10.08%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**17.35%**	**5.71%**	**10.51%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 98%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	12.84%	12.84%
Minimum 2017-2019 Rate	9.84%	6.84%
Maximum 2017-2019 Rate	15.84%	18.84%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$668,508	$632,050	($36,458)	106%	$196,215	(19%)
12/31/2010	737,343	675,041	(62,302)	109%	208,067	(30%)
12/31/2011	755,393	729,306	(26,087)	104%	265,563	(10%)
12/31/2012	863,045	819,757	(43,288)	105%	273,216	(16%)
12/31/2013	993,298	880,246	(113,052)	113%	279,546	(40%)
12/31/2014	1,059,115	1,076,206	17,091	98%	287,394	6%

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Tillamook Fire District

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	$17,091	($113,052)
Allocated pooled OPSRP UAL	32,855	19,766
Side account	0	0
Net unfunded pension actuarial accrued liability	49,946	(93,286)
Combined valuation payroll	287,394	279,546
Net pension UAL as a percentage of payroll	17%	(33%)
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$2,284	$3,869

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$44,331	$35,288
Tier 1/Tier 2 valuation payroll	225,364	219,003
Tier 1/Tier 2 pension normal cost rate	19.67%	16.11%
Tier 1/ Tier 2 Actuarial accrued liability	$1,076,206	$880,246
Actuarial asset value	1,059,115	993,298
Tier 1/Tier 2 Unfunded actuarial accrued liability	17,091	(113,052)
Tier 1/ Tier 2 Funded status	98%	113%
Combined valuation payroll	$287,394	$279,546
Tier 1/Tier 2 UAL as a percentage of payroll	6%	(40%)
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	(3.83%)	(3.27%)
Tier 1/Tier 2 active members [1]	3	3
Tier 1/Tier 2 dormant members	0	0
Tier 1/Tier 2 retirees and beneficiaries	5	5

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	287,394	279,546
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$84,595	$78,818
2. Employer reserves	803,641	731,792
3. Benefits in force reserve	170,879	182,688
4. Total market value of assets *(1. + 2. + 3.)*	**$1,059,115**	**$993,298**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$993,298
2. Regular employer contributions	17,632
3. Benefit payments and expense	(28,222)
4. Adjustments [1]	4,583
5. Interest credited	71,823
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$1,059,115**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$19,771	$15,748
Tier 1 General Service	0	0
Tier 2 Police & Fire	24,560	19,540
Tier 2 General Service	0	0
Total	**$44,331**	**$35,288**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$36,471	$44,331	$7,860

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$414,556	$335,938
▪ Tier 1 General Service	0	0
▪ Tier 2 Police & Fire	330,149	249,822
▪ Tier 2 General Service	0	0
▪ **Total Active Members**	**$744,705**	**$585,760**
Dormant Members	0	0
Retired Members and Beneficiaries	331,501	294,486
Total Actuarial Accrued Liability	**$1,076,206**	**$880,246**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$945,834	$1,076,206	$130,372

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$1,076,206	$880,246
2. Actuarial value of assets	1,059,115	993,298
3. Unfunded accrued liability *(1. – 2.)*	17,091	(113,052)
4. Funded percentage *(2. ÷ 1.)*	98%	113%
5. Combined valuation payroll	$287,394	$279,546
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	6%	(40%)

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	($113,052)	($8,183)	($8,424)	($113,293)	($8,486)
December 31, 2014	N/A	N/A	N/A	$130,384	$9,434
Total				**$17,091**	**$948**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$880,246
b. Normal cost at December 31, 2013	35,288
c. Benefit payments during 2014	(28,005)
d. Interest at 7.75% to December 31, 2014	68,501
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	956,030
f. Change in actuarial accrued liability due to assumption, method, and plan changes	130,372
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	1,086,402
2. Actuarial accrued liability at December 31, 2014	1,076,206
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	10,196
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	993,298
b. Contributions for 2014[1]	17,632
c. Benefit payments and expenses during 2014	(28,222)
d. Interest at 7.75% to December 31, 2014	76,570
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	1,059,279
5. Actuarial value of assets at December 31, 2014	1,059,115
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(164)
7. Total actuarial gain/(loss) *(3. + 6.)*	**$10,032**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**($113,052)**
2. Expected increase	9,803
3. Liability (gain)/loss	(10,196)
4. Asset (gain)/loss	164
5. Change due to changes in assumptions, methods, and plan provisions	130,372
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**$17,091**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$19,771	$88,400	22.37%	$15,748	$85,858	18.34%
Tier 1 General Service	0	0	0.00%	0	0	0.00%
Tier 2 Police & Fire	24,560	136,964	17.93%	19,540	133,145	14.68%
Tier 2 General Service	0	0	0.00%	0	0	0.00%
Total	**$44,331**	**$225,364**	**19.67%**	**$35,288**	**$219,003**	**16.11%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	$17,091	($113,052)
2. Next year's Tier 1/Tier 2 UAL payment	948	(8,183)
3. Combined valuation payroll	287,394	279,546
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	0.33%	(2.93%)

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	19.67%	16.11%
b. Tier 1/Tier 2 UAL rate	0.33%	(2.93%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	20.15%	13.33%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1. Current net Tier 1/Tier 2 pension contribution rate	12.84%
2. Employer contribution rate attributable to side accounts	0.00%
3. Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	12.84%
4. Size of rate collar	
a. 20% of current employer contribution rate *(20% x 3.)*	2.57%
b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
c. Funded percentage	98%
d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5. Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	9.84%
6. Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	15.84%
7. Advisory July 1, 2017 total pension rate, before adjustment	20.15%
8. Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	(4.31%)
9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	0.33%
10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	(3.98%)
11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	15.84%
12. Tier 1/Tier 2 retiree healthcare rate	0.50%
13. Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	19.67%
15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	19.67%
16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	15.84%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	19.67%	16.11%
b. Tier 1/Tier 2 UAL rate	(3.98%)	(3.42%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate	15.84%	12.84%
(a. + b. + c., minimum of 5.50%)		

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$0	$88,400	$88,400
Tier 2	0	136,964	136,964
Tier 1/Tier 2 valuation payroll	0	225,364	225,364
OPSRP valuation payroll	0	62,030	62,030
Combined valuation payroll	**$0**	**$287,394**	**$287,394**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	0	0	0	0	0	0	0	0
Police & Fire	1	2	1	4	1	2	1	4
Total	1	2	1	4	1	2	1	4
Active Members with previous service segments with the employer								
General Service	0	0	N/A	0	0	0	N/A	0
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	0	0	N/A	0	0	0	N/A	0
Dormant Members								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Retired Members and Beneficiaries								
General Service	1	0	0	1	1	0	0	1
Police & Fire	4	0	0	4	4	0	0	4
Total	5	0	0	5	5	0	0	5
Grand Total Number of Members	**6**	**2**	**1**	**9**	**6**	**2**	**1**	**9**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39										
40-44				1						**1**
45-49			1							**1**
50-54										
55-59				1						**1**
60-64										
65-69										
70-74										
75+										
Total	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**3**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75+		
Total		

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59		
60-64	1	910
65-69	3	350
70-74	1	75
75-79		
80-84		
85-89		
90-94		
95-99		
100+		
Total	5	407

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.
- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.
- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.
- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.
- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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November 2015

Town of Butte Falls/2253
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated 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.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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Milliman

November 2015
Town of Butte Falls/2253

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Town of Butte Falls -- #2253

November 2015

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Executive Summary

Milliman has prepared this report for Town of Butte Falls to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Town of Butte Falls.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Town of Butte Falls

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	16.38%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	(4.97%)	(4.97%)	(4.97%)
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**12.42%**	**4.14%**	**8.94%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**12.92%**	**4.57%**	**9.37%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 108%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	8.41%	8.41%
Minimum 2017-2019 Rate	5.41%	2.41%
Maximum 2017-2019 Rate	11.41%	14.41%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$183,862	$167,980	($15,882)	109%	$107,885	(15%)
12/31/2010	197,488	178,619	(18,869)	111%	112,140	(17%)
12/31/2011	198,605	200,004	1,399	99%	86,198	2%
12/31/2012	227,332	191,168	(36,164)	119%	55,627	(65%)
12/31/2013	260,079	208,272	(51,807)	125%	74,444	(70%)
12/31/2014	278,186	258,036	(20,150)	108%	65,100	(31%)

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Town of Butte Falls

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	($20,150)	($51,807)
Allocated pooled OPSRP UAL	7,442	5,264
Side account	0	0
Net unfunded pension actuarial accrued liability	(12,708)	(46,543)
Combined valuation payroll	65,100	74,444
Net pension UAL as a percentage of payroll	(20%)	(63%)
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$517	$1,030

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$5,732	$4,948
Tier 1/Tier 2 valuation payroll	34,988	19,159
Tier 1/Tier 2 pension normal cost rate	16.38%	25.83%
Tier 1/ Tier 2 Actuarial accrued liability	$258,036	$208,272
Actuarial asset value	278,186	260,079
Tier 1/Tier 2 Unfunded actuarial accrued liability	(20,150)	(51,807)
Tier 1/ Tier 2 Funded status	108%	125%
Combined valuation payroll	$65,100	$74,444
Tier 1/Tier 2 UAL as a percentage of payroll	(31%)	(70%)
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	(4.97%)	(17.42%)
Tier 1/Tier 2 active members [1]	1	1
Tier 1/Tier 2 dormant members	4	4
Tier 1/Tier 2 retirees and beneficiaries	3	3

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	65,100	74,444
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$56,911	$53,141
2. Employer reserves	201,963	186,570
3. Benefits in force reserve	19,313	20,368
4. Total market value of assets *(1. + 2. + 3.)*	**$278,186**	**$260,079**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$260,079
2. Regular employer contributions	1,773
3. Benefit payments and expense	(3,190)
4. Adjustments [1]	679
5. Interest credited	18,845
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$278,186**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$5,322	$4,603
Tier 1 General Service	0	0
Tier 2 Police & Fire	0	0
Tier 2 General Service	410	345
Total	**$5,732**	**$4,948**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$4,863	$5,732	$869

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$66,838	$43,797
▪ Tier 1 General Service	0	0
▪ Tier 2 Police & Fire	32,147	30,010
▪ Tier 2 General Service	1,961	1,576
▪ **Total Active Members**	**$100,946**	**$75,383**
Dormant Members	119,624	100,057
Retired Members and Beneficiaries	37,466	32,832
Total Actuarial Accrued Liability	**$258,036**	**$208,272**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$230,297	$258,036	$27,739

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$258,036	$208,272
2. Actuarial value of assets	278,186	260,079
3. Unfunded accrued liability *(1. – 2.)*	(20,150)	(51,807)
4. Funded percentage *(2. ÷ 1.)*	108%	125%
5. Combined valuation payroll	$65,100	$74,444
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	(31%)	(70%)

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	($51,807)	($3,750)	($3,860)	($51,917)	($3,889)
December 31, 2014	N/A	N/A	N/A	$31,767	$2,299
Total				**($20,150)**	**($1,590)**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$208,272
b. Normal cost at December 31, 2013	4,948
c. Benefit payments during 2014	(3,165)
d. Interest at 7.75% to December 31, 2014	16,210
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	226,265
f. Change in actuarial accrued liability due to assumption, method, and plan changes	27,739
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	254,004
2. Actuarial accrued liability at December 31, 2014	258,036
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	(4,032)
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	260,079
b. Contributions for 2014[1]	1,773
c. Benefit payments and expenses during 2014	(3,190)
d. Interest at 7.75% to December 31, 2014	20,101
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	278,764
5. Actuarial value of assets at December 31, 2014	278,186
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(577)
7. Total actuarial gain/(loss) *(3. + 6.)*	**($4,609)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**($51,807)**
2. Expected increase	(691)
3. Liability (gain)/loss	4,032
4. Asset (gain)/loss	577
5. Change due to changes in assumptions, methods, and plan provisions	27,739
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**($20,150)**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$5,322	$32,001	16.63%	$4,603	$16,191	28.43%
Tier 1 General Service	0	0	0.00%	0	0	0.00%
Tier 2 Police & Fire	0	0	0.00%	0	0	0.00%
Tier 2 General Service	410	2,987	13.73%	345	2,968	11.62%
Total	**$5,732**	**$34,988**	**16.38%**	**$4,948**	**$19,159**	**25.83%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	($20,150)	($51,807)
2. Next year's Tier 1/Tier 2 UAL payment	(1,590)	(3,750)
3. Combined valuation payroll	65,100	74,444
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	(2.44%)	(5.04%)

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	16.38%	25.83%
b. Tier 1/Tier 2 UAL rate	(2.44%)	(5.04%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	14.09%	20.94%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	8.41%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	8.41%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	1.68%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
	c. Funded percentage	108%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	5.41%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	11.41%
7.	Advisory July 1, 2017 total pension rate, before adjustment	14.09%
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	(2.68%)
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	(2.44%)
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	(5.12%)
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	11.41%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	16.38%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	16.38%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	11.41%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	16.38%	25.83%
b. Tier 1/Tier 2 UAL rate	(5.12%)	(17.57%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c., minimum of 5.50%)*	11.41%	8.41%

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$0	$32,001	$32,001
Tier 2	2,987	0	2,987
Tier 1/Tier 2 valuation payroll	2,987	32,001	34,988
OPSRP valuation payroll	30,112	0	30,112
Combined valuation payroll	**$33,099**	**$32,001**	**$65,100**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	0	0	1	1	0	0	1	1
Police & Fire	1	0	0	1	1	0	1	2
Total	1	0	1	2	1	0	2	3
Active Members with previous service segments with the employer								
General Service	0	1	N/A	1	0	1	N/A	1
Police & Fire	1	1	N/A	2	1	1	N/A	2
Total	1	2	N/A	3	1	2	N/A	3
Dormant Members								
General Service	0	0	1	1	0	0	1	1
Police & Fire	1	3	0	4	1	3	0	4
Total	1	3	1	5	1	3	1	5
Retired Members and Beneficiaries								
General Service	0	0	0	0	0	0	0	0
Police & Fire	2	1	0	3	2	1	0	3
Total	2	1	0	3	2	1	0	3
Grand Total Number of Members	**5**	**6**	**2**	**13**	**5**	**6**	**3**	**14**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39										
40-44										
45-49				1						**1**
50-54										
55-59										
60-64										
65-69										
70-74										
75+										
Total	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44	1	318
45-49	1	67
50-54	1	0
55-59		
60-64	1	528
65-69		
70-74		
75+		
Total	4	228

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59		
60-64	1	91
65-69		
70-74	1	88
75-79		
80-84		
85-89	1	114
90-94		
95-99		
100+		
Total	3	97

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.
- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.
- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.
- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.
- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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November 2015

Tri-County Cooperative Weed Management Area/2865
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

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In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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Milliman

November 2015
Tri-County Cooperative Weed Management Area/2865

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Tri-County Cooperative Weed Management Area -- #2865

November 2015

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Executive Summary

Milliman has prepared this report for Tri-County Cooperative Weed Management Area to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Tri-County Cooperative Weed Management Area.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Tri-County Cooperative Weed Management Area

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	17.01%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	(2.54%)	(2.54%)	(2.54%)
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**15.48%**	**6.57%**	**11.37%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**15.98%**	**7.00%**	**11.80%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 100%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	11.47%	11.47%
Minimum 2017-2019 Rate	8.47%	5.47%
Maximum 2017-2019 Rate	14.47%	17.47%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	($155)	$0	$155	0%	$76,926	0%
12/31/2010	(252)	0	252	0%	113,522	0%
12/31/2011	(275)	0	275	100%	114,758	0%
12/31/2012	(295)	0	295	0%	96,745	0%
12/31/2013	(1,440)	0	1,440	0%	91,490	2%
12/31/2014	(3,031)	0	3,031	0%	75,233	4%

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Tri-County Cooperative Weed Management Area

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	$3,031	$1,440
Allocated pooled OPSRP UAL	8,601	6,469
Side account	0	0
Net unfunded pension actuarial accrued liability	11,632	7,909
Combined valuation payroll	75,233	91,490
Net pension UAL as a percentage of payroll	15%	9%
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$598	$1,266

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$0	$0
Tier 1/Tier 2 valuation payroll	0	0
Tier 1/Tier 2 pension normal cost rate	17.01%	14.24%
Tier 1/ Tier 2 Actuarial accrued liability	$0	$0
Actuarial asset value	(3,031)	(1,440)
Tier 1/Tier 2 Unfunded actuarial accrued liability	3,031	1,440
Tier 1/ Tier 2 Funded status	0%	0%
Combined valuation payroll	$75,233	$91,490
Tier 1/Tier 2 UAL as a percentage of payroll	4%	2%
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	(2.54%)	(2.77%)
Tier 1/Tier 2 active members [1]	0	0
Tier 1/Tier 2 dormant members	0	0
Tier 1/Tier 2 retirees and beneficiaries	0	0

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	75,233	91,490
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$0	$0
2. Employer reserves	(3,031)	(1,440)
3. Benefits in force reserve	0	0
4. Total market value of assets *(1. + 2. + 3.)*	**($3,031)**	**($1,440)**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	($1,440)
2. Regular employer contributions	(1,318)
3. Benefit payments and expense	0
4. Adjustments [1]	(81)
5. Interest credited	(192)
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**($3,031)**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$0
Tier 1 General Service	0	0
Tier 2 Police & Fire	0	0
Tier 2 General Service	0	0
Total	**$0**	**$0**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$0	$0	$0

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$0	$0
▪ Tier 1 General Service	0	0
▪ Tier 2 Police & Fire	0	0
▪ Tier 2 General Service	0	0
▪ **Total Active Members**	**$0**	**$0**
Dormant Members	0	0
Retired Members and Beneficiaries	0	0
Total Actuarial Accrued Liability	**$0**	**$0**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$0	$0	$0

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$0	$0
2. Actuarial value of assets	(3,031)	(1,440)
3. Unfunded accrued liability *(1. – 2.)*	3,031	1,440
4. Funded percentage *(2. ÷ 1.)*	100%	100%
5. Combined valuation payroll	$75,233	$91,490
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	4%	2%

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	$1,440	$104	$107	$1,443	$108
December 31, 2014	N/A	N/A	N/A	$1,588	$115
Total				**$3,031**	**$223**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$0
b. Normal cost at December 31, 2013	0
c. Benefit payments during 2014	0
d. Interest at 7.75% to December 31, 2014	0
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	0
f. Change in actuarial accrued liability due to assumption, method, and plan changes	0
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	0
2. Actuarial accrued liability at December 31, 2014	0
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	0
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	(1,440)
b. Contributions for 2014[1]	(1,318)
c. Benefit payments and expenses during 2014	0
d. Interest at 7.75% to December 31, 2014	(163)
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	(2,921)
5. Actuarial value of assets at December 31, 2014	(3,031)
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(110)
7. Total actuarial gain/(loss) *(3. + 6.)*	**($110)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**$1,440**
2. Expected increase	1,481
3. Liability (gain)/loss	0
4. Asset (gain)/loss	110
5. Change due to changes in assumptions, methods, and plan provisions	0
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**$3,031**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$0	$0	0.00%
Tier 1 General Service	0	0	0.00%	0	0	0.00%
Tier 2 Police & Fire	0	0	0.00%	0	0	0.00%
Tier 2 General Service	0	0	0.00%	0	0	0.00%
Total	**$0**	**$0**	**17.01%**	**$0**	**$0**	**14.24%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	$3,031	$1,440
2. Next year's Tier 1/Tier 2 UAL payment	223	104
3. Combined valuation payroll	75,233	91,490
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	0.30%	0.11%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	17.01%	14.24%
b. Tier 1/Tier 2 UAL rate	0.30%	0.11%
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	17.46%	14.50%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	11.47%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	11.47%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	2.29%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
	c. Funded percentage	100%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	8.47%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	14.47%
7.	Advisory July 1, 2017 total pension rate, before adjustment	17.46%
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	(2.99%)
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	0.30%
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	(2.69%)
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	14.47%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	17.01%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	17.01%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	14.47%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	17.01%	14.24%
b. Tier 1/Tier 2 UAL rate	(2.69%)	(2.92%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate	14.47%	11.47%
(a. + b. + c., minimum of 5.50%)		

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$0	$0	$0
Tier 2	0	0	0
Tier 1/Tier 2 valuation payroll	0	0	0
OPSRP valuation payroll	75,233	0	75,233
Combined valuation payroll	**$75,233**	**$0**	**$75,233**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	0	0	2	2	0	0	2	2
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	2	2	0	0	2	2
Active Members with previous service segments with the employer								
General Service	0	0	N/A	0	0	0	N/A	0
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	0	0	N/A	0	0	0	N/A	0
Dormant Members								
General Service	0	0	1	1	0	0	0	0
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	1	1	0	0	0	0
Retired Members and Beneficiaries								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Grand Total Number of Members	**0**	**0**	**3**	**3**	**0**	**0**	**2**	**2**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20										
20-24										
25-29										
30-34										
35-39										
40-44										
45-49										
50-54										
55-59										
60-64										
65-69										
70-74										
75+										
Total	0	0	0	0	0	0	0	0	0	0

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75+		
Total		

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75-79		
80-84		
85-89		
90-94		
95-99		
100+		
Total		

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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503 227 0634

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Milliman
111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
503 227 0634

November 2015

Turner Fire District/2610
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

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In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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November 2015
Turner Fire District/2610

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Turner Fire District -- #2610

November 2015

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Executive Summary

Milliman has prepared this report for Turner Fire District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Turner Fire District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Turner Fire District

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	25.83%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	(8.36%)	(8.36%)	(8.36%)
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**18.48%**	**0.75%**	**5.55%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**18.98%**	**1.18%**	**5.98%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 91%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	14.47%	14.47%
Minimum 2017-2019 Rate	11.47%	8.47%
Maximum 2017-2019 Rate	17.47%	20.47%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$0	$0	$0	0%	$0	0%
12/31/2010	0	0	0	0%	0	0%
12/31/2011	0	0	0	0%	0	0%
12/31/2012	1,274,813	1,088,856	(185,957)	117%	336,946	(55%)
12/31/2013	1,424,608	1,184,515	(240,093)	120%	355,304	(68%)
12/31/2014	1,459,477	1,608,804	149,327	91%	327,881	46%

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Turner Fire District

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	$149,327	($240,093)
Allocated pooled OPSRP UAL	37,484	25,122
Side account	0	0
Net unfunded pension actuarial accrued liability	186,811	(214,971)
Combined valuation payroll	327,881	355,304
Net pension UAL as a percentage of payroll	57%	(61%)
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$2,606	$4,918

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$23,922	$17,489
Tier 1/Tier 2 valuation payroll	92,615	91,063
Tier 1/Tier 2 pension normal cost rate	25.83%	19.21%
Tier 1/ Tier 2 Actuarial accrued liability	$1,608,804	$1,184,515
Actuarial asset value	1,459,477	1,424,608
Tier 1/Tier 2 Unfunded actuarial accrued liability	149,327	(240,093)
Tier 1/ Tier 2 Funded status	91%	120%
Combined valuation payroll	$327,881	$355,304
Tier 1/Tier 2 UAL as a percentage of payroll	46%	(68%)
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	(8.36%)	(4.74%)
Tier 1/Tier 2 active members [1]	1	1
Tier 1/Tier 2 dormant members	7	7
Tier 1/Tier 2 retirees and beneficiaries	5	3

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	327,881	355,304
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$150,738	$141,777
2. Employer reserves	923,437	969,105
3. Benefits in force reserve	385,302	313,726
4. Total market value of assets *(1. + 2. + 3.)*	**$1,459,477**	**$1,424,608**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$1,424,608
2. Regular employer contributions	15,186
3. Benefit payments and expense	(63,635)
4. Adjustments [1]	(19,194)
5. Interest credited	102,513
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$1,459,477**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$23,860	$17,489
Tier 1 General Service	0	0
Tier 2 Police & Fire	62	0
Tier 2 General Service	0	0
Total	**$23,922**	**$17,489**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$19,172	$23,922	$4,750

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$655,168	$498,840
▪ Tier 1 General Service	0	914
▪ Tier 2 Police & Fire	111,332	100,555
▪ Tier 2 General Service	0	0
▪ **Total Active Members**	**$766,500**	**$600,309**
Dormant Members	94,828	78,491
Retired Members and Beneficiaries	747,476	505,715
Total Actuarial Accrued Liability	**$1,608,804**	**$1,184,515**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$1,393,928	$1,608,804	$214,876

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$1,608,804	$1,184,515
2. Actuarial value of assets	1,459,477	1,424,608
3. Unfunded accrued liability *(1. – 2.)*	149,327	(240,093)
4. Funded percentage *(2. ÷ 1.)*	91%	120%
5. Combined valuation payroll	$327,881	$355,304
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	46%	(68%)

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	($240,093)	($17,378)	($17,890)	($240,605)	($18,023)
December 31, 2014	N/A	N/A	N/A	$389,932	$28,215
Total				**$149,327**	**$10,192**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$1,184,515
b. Normal cost at December 31, 2013	17,489
c. Benefit payments during 2014	(63,145)
d. Interest at 7.75% to December 31, 2014	90,031
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	1,228,890
f. Change in actuarial accrued liability due to assumption, method, and plan changes	214,876
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	1,443,766
2. Actuarial accrued liability at December 31, 2014	1,608,804
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	(165,038)
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	1,424,608
b. Contributions for 2014[1]	15,186
c. Benefit payments and expenses during 2014	(63,635)
d. Interest at 7.75% to December 31, 2014	108,530
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	1,484,688
5. Actuarial value of assets at December 31, 2014	1,459,477
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(25,211)
7. Total actuarial gain/(loss) *(3. + 6.)*	**($190,249)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**($240,093)**
2. Expected increase	(15,705)
3. Liability (gain)/loss	165,038
4. Asset (gain)/loss	25,211
5. Change due to changes in assumptions, methods, and plan provisions	214,876
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**$149,327**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$23,860	$92,265	25.86%	$17,489	$91,063	19.21%
Tier 1 General Service	0	0	0.00%	0	0	0.00%
Tier 2 Police & Fire	62	350	17.71%	0	0	0.00%
Tier 2 General Service	0	0	0.00%	0	0	0.00%
Total	**$23,922**	**$92,615**	**25.83%**	**$17,489**	**$91,063**	**19.21%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	$149,327	($240,093)
2. Next year's Tier 1/Tier 2 UAL payment	10,192	(17,378)
3. Combined valuation payroll	327,881	355,304
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	3.11%	(4.89%)

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	25.83%	19.21%
b. Tier 1/Tier 2 UAL rate	3.11%	(4.89%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	29.09%	14.47%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	14.47%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	14.47%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	2.89%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
	c. Funded percentage	91%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	11.47%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	17.47%
7.	Advisory July 1, 2017 total pension rate, before adjustment	29.09%
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	(11.62%)
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	3.11%
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	(8.51%)
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	17.47%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	25.83%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	25.83%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	17.47%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	25.83%	19.21%
b. Tier 1/Tier 2 UAL rate	(8.51%)	(4.89%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate	17.47%	14.47%
(a. + b. + c., minimum of 5.50%)		

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$0	$92,265	$92,265
Tier 2	0	350	350
Tier 1/Tier 2 valuation payroll	0	92,615	92,615
OPSRP valuation payroll	2,360	232,906	235,266
Combined valuation payroll	**$2,360**	**$325,521**	**$327,881**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	0	0	0	0	0	0	2	2
Police & Fire	1	0	12	13	1	0	6	7
Total	1	0	12	13	1	0	8	9
Active Members with previous service segments with the employer								
General Service	1	0	N/A	1	1	0	N/A	1
Police & Fire	8	15	N/A	23	9	14	N/A	23
Total	9	15	N/A	24	10	14	N/A	24
Dormant Members								
General Service	0	1	0	1	0	1	0	1
Police & Fire	0	6	2	8	0	6	0	6
Total	0	7	2	9	0	7	0	7
Retired Members and Beneficiaries								
General Service	0	0	0	0	0	0	0	0
Police & Fire	5	0	0	5	3	0	0	3
Total	5	0	0	5	3	0	0	3
Grand Total Number of Members	**15**	**22**	**14**	**51**	**14**	**21**	**8**	**43**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39										
40-44										
45-49					1					**1**
50-54										
55-59										
60-64										
65-69										
70-74										
75+										
Total	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39	1	394
40-44	2	192
45-49		
50-54	2	30
55-59	1	354
60-64	1	985
65-69		
70-74		
75+		
Total	7	311

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54	1	1
55-59	1	21
60-64	2	441
65-69		
70-74	1	3,249
75-79		
80-84		
85-89		
90-94		
95-99		
100+		
Total	5	830

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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503 227 0634

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Milliman
111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
503 227 0634

November 2015

Umatilla-Morrow Radio and Data District/2874
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated 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.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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November 2015
Umatilla-Morrow Radio and Data District/2874

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Umatilla-Morrow Radio and Data District -- #2874

November 2015

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Executive Summary

Milliman has prepared this report for Umatilla-Morrow Radio and Data District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Umatilla-Morrow Radio and Data District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Umatilla-Morrow Radio and Data District

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	10.17%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	0.08%	0.08%	0.08%
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**11.26%**	**9.19%**	**13.99%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**11.76%**	**9.62%**	**14.42%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 103%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	7.72%	7.72%
Minimum 2017-2019 Rate	4.72%	1.72%
Maximum 2017-2019 Rate	10.72%	13.72%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$0	$0	$0	0%	$0	0%
12/31/2010	0	0	0	0%	0	0%
12/31/2011	0	493	493	0%	64,245	1%
12/31/2012	18,250	10,753	(7,497)	170%	125,894	(6%)
12/31/2013	36,329	22,118	(14,211)	164%	128,162	(11%)
12/31/2014	48,000	46,421	(1,579)	103%	205,709	(1%)

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Umatilla-Morrow Radio and Data District

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	($1,579)	($14,211)
Allocated pooled OPSRP UAL	23,517	9,062
Side account	0	0
Net unfunded pension actuarial accrued liability	21,938	(5,149)
Combined valuation payroll	205,709	128,162
Net pension UAL as a percentage of payroll	11%	(4%)
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$1,635	$1,774

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$20,923	$10,726
Tier 1/Tier 2 valuation payroll	205,709	128,162
Tier 1/Tier 2 pension normal cost rate	10.17%	8.37%
Tier 1/ Tier 2 Actuarial accrued liability	$46,421	$22,118
Actuarial asset value	48,000	36,329
Tier 1/Tier 2 Unfunded actuarial accrued liability	(1,579)	(14,211)
Tier 1/ Tier 2 Funded status	103%	164%
Combined valuation payroll	$205,709	$128,162
Tier 1/Tier 2 UAL as a percentage of payroll	(1%)	(11%)
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	0.08%	(0.65%)
Tier 1/Tier 2 active members [1]	3	2
Tier 1/Tier 2 dormant members	0	0
Tier 1/Tier 2 retirees and beneficiaries	0	0

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	205,709	128,162
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$0	$0
2. Employer reserves	48,000	36,329
3. Benefits in force reserve	0	0
4. Total market value of assets *(1. + 2. + 3.)*	**$48,000**	**$36,329**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$36,329
2. Regular employer contributions	8,609
3. Benefit payments and expense	0
4. Adjustments [1]	(201)
5. Interest credited	3,262
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$48,000**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$0
Tier 1 General Service	0	0
Tier 2 Police & Fire	0	0
Tier 2 General Service	20,923	10,726
Total	**$20,923**	**$10,726**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$17,949	$20,923	$2,974

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$0	$0
▪ Tier 1 General Service	0	0
▪ Tier 2 Police & Fire	0	0
▪ Tier 2 General Service	46,421	22,118
▪ **Total Active Members**	**$46,421**	**$22,118**
Dormant Members	0	0
Retired Members and Beneficiaries	0	0
Total Actuarial Accrued Liability	**$46,421**	**$22,118**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$39,522	$46,421	$6,899

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$46,421	$22,118
2. Actuarial value of assets	48,000	36,329
3. Unfunded accrued liability *(1. – 2.)*	(1,579)	(14,211)
4. Funded percentage *(2. ÷ 1.)*	103%	164%
5. Combined valuation payroll	$205,709	$128,162
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	(1%)	(11%)

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	($14,211)	($1,029)	($1,059)	($14,241)	($1,067)
December 31, 2014	N/A	N/A	N/A	$12,662	$916
Total				**($1,579)**	**($151)**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$22,118
b. Normal cost at December 31, 2013	10,726
c. Benefit payments during 2014	0
d. Interest at 7.75% to December 31, 2014	2,130
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	34,974
f. Change in actuarial accrued liability due to assumption, method, and plan changes	6,899
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	41,873
2. Actuarial accrued liability at December 31, 2014	46,421
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	(4,548)
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	36,329
b. Contributions for 2014[1]	8,609
c. Benefit payments and expenses during 2014	0
d. Interest at 7.75% to December 31, 2014	3,149
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	48,088
5. Actuarial value of assets at December 31, 2014	48,000
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(88)
7. Total actuarial gain/(loss) *(3. + 6.)*	**($4,636)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**($14,211)**
2. Expected increase	1,097
3. Liability (gain)/loss	4,548
4. Asset (gain)/loss	88
5. Change due to changes in assumptions, methods, and plan provisions	6,899
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**($1,579)**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$0	$0	0.00%
Tier 1 General Service	0	0	0.00%	0	0	0.00%
Tier 2 Police & Fire	0	0	0.00%	0	0	0.00%
Tier 2 General Service	20,923	205,709	10.17%	10,726	128,162	8.37%
Total	**$20,923**	**$205,709**	**10.17%**	**$10,726**	**$128,162**	**8.37%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	($1,579)	($14,211)
2. Next year's Tier 1/Tier 2 UAL payment	(151)	(1,029)
3. Combined valuation payroll	205,709	128,162
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	(0.07%)	(0.80%)

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	10.17%	8.37%
b. Tier 1/Tier 2 UAL rate	(0.07%)	(0.80%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	10.25%	7.72%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	7.72%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	7.72%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	1.54%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
	c. Funded percentage	103%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	4.72%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	10.72%
7.	Advisory July 1, 2017 total pension rate, before adjustment	10.25%
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	0.00%
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	(0.07%)
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	(0.07%)
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	10.25%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	10.17%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	10.17%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	10.25%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	10.17%	8.37%
b. Tier 1/Tier 2 UAL rate	(0.07%)	(0.80%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate	10.25%	7.72%
(a. + b. + c., minimum of 5.50%)		

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$0	$0	$0
Tier 2	205,709	0	205,709
Tier 1/Tier 2 valuation payroll	205,709	0	205,709
OPSRP valuation payroll	0	0	0
Combined valuation payroll	**$205,709**	**$0**	**$205,709**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	0	3	0	3	0	2	0	2
Police & Fire	0	0	0	0	0	0	0	0
Total	0	3	0	3	0	2	0	2
Active Members with previous service segments with the employer								
General Service	0	0	N/A	0	0	0	N/A	0
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	0	0	N/A	0	0	0	N/A	0
Dormant Members								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Retired Members and Beneficiaries								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Grand Total Number of Members	**0**	**3**	**0**	**3**	**0**	**2**	**0**	**2**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39			1							**1**
40-44			1							**1**
45-49										
50-54			1							**1**
55-59										
60-64										
65-69										
70-74										
75+										
Total	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**3**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75+		
Total		

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75-79		
80-84		
85-89		
90-94		
95-99		
100+		
Total		

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.
- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.
- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.
- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.
- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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503 227 0634

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Milliman
111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
503 227 0634

November 2015

Valley View Cemetery/2536
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

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In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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Milliman

November 2015
Valley View Cemetery/2536

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Valley View Cemetery -- #2536

November 2015

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Executive Summary

Milliman has prepared this report for Valley View Cemetery to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Valley View Cemetery.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Valley View Cemetery

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	22.43%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	(16.93%)	(16.93%)	(16.93%)
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**6.51%**	**0.00%**	**0.00%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**7.01%**	**0.43%**	**0.43%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 1156%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	5.47%	5.47%
Minimum 2017-2019 Rate	2.47%	0.00%
Maximum 2017-2019 Rate	8.47%	11.47%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$77,911	$8,018	($69,893)	972%	$16,000	(437%)
12/31/2010	87,303	8,851	(78,452)	986%	18,935	(414%)
12/31/2011	88,943	9,444	(79,499)	942%	39,559	(201%)
12/31/2012	101,364	7,927	(93,437)	1279%	33,825	(276%)
12/31/2013	116,935	8,598	(108,337)	1360%	38,133	(284%)
12/31/2014	125,081	10,818	(114,263)	1156%	43,622	(262%)

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Valley View Cemetery

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	($114,263)	($108,337)
Allocated pooled OPSRP UAL	4,987	2,696
Side account	0	0
Net unfunded pension actuarial accrued liability	(109,276)	(105,641)
Combined valuation payroll	43,622	38,133
Net pension UAL as a percentage of payroll	(251%)	(277%)
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$347	$528

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$950	$714
Tier 1/Tier 2 valuation payroll	5,611	4,678
Tier 1/Tier 2 pension normal cost rate	22.43%	20.73%
Tier 1/ Tier 2 Actuarial accrued liability	$10,818	$8,598
Actuarial asset value	125,081	116,935
Tier 1/Tier 2 Unfunded actuarial accrued liability	(114,263)	(108,337)
Tier 1/ Tier 2 Funded status	1156%	1360%
Combined valuation payroll	$43,622	$38,133
Tier 1/Tier 2 UAL as a percentage of payroll	(262%)	(284%)
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	(16.93%)	(15.26%)
Tier 1/Tier 2 active members [1]	0	0
Tier 1/Tier 2 dormant members	0	0
Tier 1/Tier 2 retirees and beneficiaries	1	1

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	43,622	38,133
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$0	$0
2. Employer reserves	121,007	112,577
3. Benefits in force reserve	4,074	4,358
4. Total market value of assets *(1. + 2. + 3.)*	**$125,081**	**$116,935**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$116,935
2. Regular employer contributions	269
3. Benefit payments and expense	(673)
4. Adjustments [1]	108
5. Interest credited	8,442
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$125,081**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$0
Tier 1 General Service	950	714
Tier 2 Police & Fire	0	0
Tier 2 General Service	0	0
Total	**$950**	**$714**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$797	$950	$153

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$0	$0
▪ Tier 1 General Service	2,913	1,573
▪ Tier 2 Police & Fire	0	0
▪ Tier 2 General Service	0	0
▪ **Total Active Members**	**$2,913**	**$1,573**
Dormant Members	0	0
Retired Members and Beneficiaries	7,905	7,025
Total Actuarial Accrued Liability	**$10,818**	**$8,598**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$9,409	$10,818	$1,409

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$10,818	$8,598
2. Actuarial value of assets	125,081	116,935
3. Unfunded accrued liability *(1. – 2.)*	(114,263)	(108,337)
4. Funded percentage *(2. ÷ 1.)*	1156%	1360%
5. Combined valuation payroll	$43,622	$38,133
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	(262%)	(284%)

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	($108,337)	($7,841)	($8,073)	($108,569)	($8,133)
December 31, 2014	N/A	N/A	N/A	($5,694)	($412)
Total				**($114,263)**	**($8,545)**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$8,598
b. Normal cost at December 31, 2013	714
c. Benefit payments during 2014	(668)
d. Interest at 7.75% to December 31, 2014	668
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	9,312
f. Change in actuarial accrued liability due to assumption, method, and plan changes	1,409
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	10,721
2. Actuarial accrued liability at December 31, 2014	10,818
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	(97)
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	116,935
b. Contributions for 2014[1]	269
c. Benefit payments and expenses during 2014	(673)
d. Interest at 7.75% to December 31, 2014	9,047
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	125,578
5. Actuarial value of assets at December 31, 2014	125,081
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(497)
7. Total actuarial gain/(loss) *(3. + 6.)*	**($594)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**($108,337)**
2. Expected increase	(7,929)
3. Liability (gain)/loss	97
4. Asset (gain)/loss	497
5. Change due to changes in assumptions, methods, and plan provisions	1,409
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**($114,263)**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$0	$0	0.00%
Tier 1 General Service	950	5,611	16.93%	714	4,678	15.26%
Tier 2 Police & Fire	0	0	0.00%	0	0	0.00%
Tier 2 General Service	0	0	0.00%	0	0	0.00%
Total	**$950**	**$5,611**	**16.93%**	**$714**	**$4,678**	**15.26%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	($114,263)	($108,337)
2. Next year's Tier 1/Tier 2 UAL payment	(8,545)	(7,841)
3. Combined valuation payroll	43,622	38,133
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	(19.59%)	(20.56%)

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	16.93%	15.26%
b. Tier 1/Tier 2 UAL rate	(19.59%)	(20.56%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	(2.51%)	(5.15%)

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	5.47%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	5.47%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	1.09%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
	c. Funded percentage	1156%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	6.00%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	0.00%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	11.47%
7.	Advisory July 1, 2017 total pension rate, before adjustment	(2.51%)
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	2.51%
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	(19.59%)
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	(17.08%)
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	0.00%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	5.50%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	16.93%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	22.43%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	5.50%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	22.43%	20.73%
b. Tier 1/Tier 2 UAL rate	(17.08%)	(15.41%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate	5.50%	5.47%
(a. + b. + c., minimum of 5.50%)		

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$5,611	$0	$5,611
Tier 2	0	0	0
Tier 1/Tier 2 valuation payroll	5,611	0	5,611
OPSRP valuation payroll	38,011	0	38,011
Combined valuation payroll	**$43,622**	**$0**	**$43,622**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	0	0	2	2	0	0	2	2
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	2	2	0	0	2	2
Active Members with previous service segments with the employer								
General Service	1	0	N/A	1	1	0	N/A	1
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	1	0	N/A	1	1	0	N/A	1
Dormant Members								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Retired Members and Beneficiaries								
General Service	1	0	0	1	1	0	0	1
Police & Fire	0	0	0	0	0	0	0	0
Total	1	0	0	1	1	0	0	1
Grand Total Number of Members	**2**	**0**	**2**	**4**	**2**	**0**	**2**	**4**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20										
20-24										
25-29										
30-34										
35-39										
40-44										
45-49										
50-54										
55-59										
60-64										
65-69										
70-74										
75+										
Total	0	0	0	0	0	0	0	0	0	0

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75+		
Total		

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75-79		
80-84	1	52
85-89		
90-94		
95-99		
100+		
Total	1	52

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.
- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.
- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.
- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.
- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated 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.

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503 227 0634

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Milliman
111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
503 227 0634

November 2015

Vernonia Fire/2797
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

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In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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November 2015
Vernonia Fire/2797

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Vernonia Fire -- #2797

November 2015

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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated 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.

Executive Summary

Milliman has prepared this report for Vernonia Fire to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Vernonia Fire.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Vernonia Fire

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	10.80%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	(2.33%)	(2.33%)	(2.33%)
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**9.48%**	**6.78%**	**11.58%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**9.98%**	**7.21%**	**12.01%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 109%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	5.47%	5.47%
Minimum 2017-2019 Rate	2.47%	0.00%
Maximum 2017-2019 Rate	8.47%	11.47%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$216,962	$163,620	($53,342)	133%	$68,210	(78%)
12/31/2010	237,730	179,180	(58,550)	133%	63,952	(92%)
12/31/2011	202,377	193,402	(8,975)	105%	95,536	(9%)
12/31/2012	222,028	192,073	(29,955)	116%	68,647	(44%)
12/31/2013	246,059	200,102	(45,957)	123%	76,009	(60%)
12/31/2014	253,297	232,832	(20,465)	109%	80,963	(25%)

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Vernonia Fire

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	($20,465)	($45,957)
Allocated pooled OPSRP UAL	9,256	5,374
Side account	0	0
Net unfunded pension actuarial accrued liability	(11,209)	(40,583)
Combined valuation payroll	80,963	76,009
Net pension UAL as a percentage of payroll	(14%)	(53%)
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$644	$1,052

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$2,240	$1,810
Tier 1/Tier 2 valuation payroll	20,743	19,792
Tier 1/Tier 2 pension normal cost rate	10.80%	9.70%
Tier 1/ Tier 2 Actuarial accrued liability	$232,832	$200,102
Actuarial asset value	253,297	246,059
Tier 1/Tier 2 Unfunded actuarial accrued liability	(20,465)	(45,957)
Tier 1/ Tier 2 Funded status	109%	123%
Combined valuation payroll	$80,963	$76,009
Tier 1/Tier 2 UAL as a percentage of payroll	(25%)	(60%)
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	(2.33%)	(4.23%)
Tier 1/Tier 2 active members [1]	1	1
Tier 1/Tier 2 dormant members	1	1
Tier 1/Tier 2 retirees and beneficiaries	1	1

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	80,963	76,009
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$16,876	$15,726
2. Employer reserves	153,900	142,818
3. Benefits in force reserve	82,521	87,515
4. Total market value of assets *(1. + 2. + 3.)*	**$253,297**	**$246,059**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$246,059
2. Regular employer contributions	730
3. Benefit payments and expense	(13,629)
4. Adjustments [1]	2,948
5. Interest credited	17,190
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$253,297**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$0
Tier 1 General Service	0	0
Tier 2 Police & Fire	0	0
Tier 2 General Service	2,240	1,810
Total	**$2,240**	**$1,810**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$1,896	$2,240	$344

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$0	$0
▪ Tier 1 General Service	0	0
▪ Tier 2 Police & Fire	0	0
▪ Tier 2 General Service	33,552	25,894
▪ **Total Active Members**	**$33,552**	**$25,894**
Dormant Members	39,191	33,137
Retired Members and Beneficiaries	160,089	141,071
Total Actuarial Accrued Liability	**$232,832**	**$200,102**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$206,805	$232,832	$26,027

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$232,832	$200,102
2. Actuarial value of assets	253,297	246,059
3. Unfunded accrued liability *(1. – 2.)*	(20,465)	(45,957)
4. Funded percentage *(2. ÷ 1.)*	109%	123%
5. Combined valuation payroll	$80,963	$76,009
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	(25%)	(60%)

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	($45,957)	($3,326)	($3,424)	($46,055)	($3,450)
December 31, 2014	N/A	N/A	N/A	$25,590	$1,852
Total				**($20,465)**	**($1,598)**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$200,102
b. Normal cost at December 31, 2013	1,810
c. Benefit payments during 2014	(13,524)
d. Interest at 7.75% to December 31, 2014	15,054
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	203,442
f. Change in actuarial accrued liability due to assumption, method, and plan changes	26,027
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	229,469
2. Actuarial accrued liability at December 31, 2014	232,832
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	(3,363)
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	246,059
b. Contributions for 2014[1]	730
c. Benefit payments and expenses during 2014	(13,629)
d. Interest at 7.75% to December 31, 2014	18,570
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	251,729
5. Actuarial value of assets at December 31, 2014	253,297
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	1,568
7. Total actuarial gain/(loss) *(3. + 6.)*	**($1,795)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**($45,957)**
2. Expected increase	(2,330)
3. Liability (gain)/loss	3,363
4. Asset (gain)/loss	(1,568)
5. Change due to changes in assumptions, methods, and plan provisions	26,027
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**($20,465)**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$0	$0	0.00%
Tier 1 General Service	0	0	0.00%	0	0	0.00%
Tier 2 Police & Fire	0	0	0.00%	0	0	0.00%
Tier 2 General Service	2,240	20,743	10.80%	1,810	19,792	9.15%
Total	**$2,240**	**$20,743**	**10.80%**	**$1,810**	**$19,792**	**9.15%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	($20,465)	($45,957)
2. Next year's Tier 1/Tier 2 UAL payment	(1,598)	(3,326)
3. Combined valuation payroll	80,963	76,009
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	(1.97%)	(4.38%)

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	10.80%	9.15%
b. Tier 1/Tier 2 UAL rate	(1.97%)	(4.38%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	8.98%	4.92%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	5.47%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	5.47%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	1.09%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
	c. Funded percentage	109%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	2.47%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	8.47%
7.	Advisory July 1, 2017 total pension rate, before adjustment	8.98%
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	(0.51%)
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	(1.97%)
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	(2.48%)
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	8.47%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	10.80%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	10.80%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	8.47%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	10.80%	9.70%
b. Tier 1/Tier 2 UAL rate	(2.48%)	(4.38%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate	8.47%	5.47%
(a. + b. + c., minimum of 5.50%)		

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$0	$0	$0
Tier 2	20,743	0	20,743
Tier 1/Tier 2 valuation payroll	20,743	0	20,743
OPSRP valuation payroll	0	60,220	60,220
Combined valuation payroll	**$20,743**	**$60,220**	**$80,963**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	0	1	0	1	0	1	0	1
Police & Fire	0	0	1	1	0	0	1	1
Total	0	1	1	2	0	1	1	2
Active Members with previous service segments with the employer								
General Service	0	0	N/A	0	0	0	N/A	0
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	0	0	N/A	0	0	0	N/A	0
Dormant Members								
General Service	0	0	0	0	0	0	0	0
Police & Fire	1	0	0	1	1	0	0	1
Total	1	0	0	1	1	0	0	1
Retired Members and Beneficiaries								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	1	0	1	0	1	0	1
Total	0	1	0	1	0	1	0	1
Grand Total Number of Members	**1**	**2**	**1**	**4**	**1**	**2**	**1**	**4**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39										
40-44			1							**1**
45-49										
50-54										
55-59										
60-64										
65-69										
70-74										
75+										
Total	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44		
45-49		
50-54		
55-59	1	226
60-64		
65-69		
70-74		
75+		
Total	1	226

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59	1	947
60-64		
65-69		
70-74		
75-79		
80-84		
85-89		
90-94		
95-99		
100+		
Total	1	947

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.
- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.
- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.
- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.
- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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November 2015

Wallowa County/2050
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

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In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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Milliman

November 2015
Wallowa County/2050

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Wallowa County -- #2050

November 2015

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Executive Summary

Milliman has prepared this report for Wallowa County to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Wallowa County.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Wallowa County

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	18.72%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	(9.20%)	(9.20%)	(9.20%)
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**10.53%**	**0.00%**	**4.71%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**11.03%**	**0.43%**	**5.14%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 109%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	6.52%	6.52%
Minimum 2017-2019 Rate	3.52%	0.52%
Maximum 2017-2019 Rate	9.52%	12.52%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$1,085,009	$1,054,205	($30,804)	103%	$280,934	(11%)
12/31/2010	1,148,797	1,222,151	73,354	94%	299,382	25%
12/31/2011	1,158,734	1,294,432	135,698	90%	283,239	48%
12/31/2012	1,302,300	1,090,558	(211,742)	119%	178,369	(119%)
12/31/2013	1,434,706	1,162,654	(272,052)	123%	267,075	(102%)
12/31/2014	1,464,839	1,340,855	(123,984)	109%	271,075	(46%)

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Wallowa County

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	($123,984)	($272,052)
Allocated pooled OPSRP UAL	30,990	18,884
Side account	0	0
Net unfunded pension actuarial accrued liability	(92,994)	(253,168)
Combined valuation payroll	271,075	267,075
Net pension UAL as a percentage of payroll	(34%)	(95%)
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$2,155	$3,697

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$18,401	$13,688
Tier 1/Tier 2 valuation payroll	98,319	99,592
Tier 1/Tier 2 pension normal cost rate	18.72%	13.74%
Tier 1/ Tier 2 Actuarial accrued liability	$1,340,855	$1,162,654
Actuarial asset value	1,464,839	1,434,706
Tier 1/Tier 2 Unfunded actuarial accrued liability	(123,984)	(272,052)
Tier 1/ Tier 2 Funded status	109%	123%
Combined valuation payroll	$271,075	$267,075
Tier 1/Tier 2 UAL as a percentage of payroll	(46%)	(102%)
Tier 1/Tier 2 UAL rate	(9.20%)	(7.22%)
(includes Multnomah Fire District #10)		
Tier 1/Tier 2 active members [1]	1	1
Tier 1/Tier 2 dormant members	3	3
Tier 1/Tier 2 retirees and beneficiaries	8	9

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	271,075	267,075
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$121,989	$113,788
2. Employer reserves	979,506	909,357
3. Benefits in force reserve	363,344	411,561
4. Total market value of assets *(1. + 2. + 3.)*	**$1,464,839**	**$1,434,706**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$1,434,706
2. Regular employer contributions	4,004
3. Benefit payments and expense	(60,009)
4. Adjustments [1]	(13,144)
5. Interest credited	99,282
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$1,464,839**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$0
Tier 1 General Service	0	0
Tier 2 Police & Fire	18,401	13,688
Tier 2 General Service	0	0
Total	**$18,401**	**$13,688**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$15,146	$18,401	$3,255

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$0	$0
▪ Tier 1 General Service	0	0
▪ Tier 2 Police & Fire	295,338	215,944
▪ Tier 2 General Service	0	0
▪ **Total Active Members**	**$295,338**	**$215,944**
Dormant Members	340,638	283,288
Retired Members and Beneficiaries	704,879	663,422
Total Actuarial Accrued Liability	**$1,340,855**	**$1,162,654**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$1,183,975	$1,340,855	$156,880

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$1,340,855	$1,162,654
2. Actuarial value of assets	1,464,839	1,434,706
3. Unfunded accrued liability *(1. – 2.)*	(123,984)	(272,052)
4. Funded percentage *(2. ÷ 1.)*	109%	123%
5. Combined valuation payroll	$271,075	$267,075
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	(46%)	(102%)

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	($272,052)	($19,691)	($20,272)	($272,633)	($20,422)
December 31, 2014	N/A	N/A	N/A	$148,649	$10,756
Total				**($123,984)**	**($9,666)**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$1,162,654
b. Normal cost at December 31, 2013	13,688
c. Benefit payments during 2014	(59,547)
d. Interest at 7.75% to December 31, 2014	88,329
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	1,205,124
f. Change in actuarial accrued liability due to assumption, method, and plan changes	156,880
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	1,362,004
2. Actuarial accrued liability at December 31, 2014	1,340,855
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	21,149
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	1,434,706
b. Contributions for 2014[1]	4,004
c. Benefit payments and expenses during 2014	(60,009)
d. Interest at 7.75% to December 31, 2014	109,020
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	1,487,720
5. Actuarial value of assets at December 31, 2014	1,464,839
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(22,882)
7. Total actuarial gain/(loss) *(3. + 6.)*	**($1,733)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**($272,052)**
2. Expected increase	(10,545)
3. Liability (gain)/loss	(21,149)
4. Asset (gain)/loss	22,882
5. Change due to changes in assumptions, methods, and plan provisions	156,880
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**($123,984)**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$0	$0	0.00%
Tier 1 General Service	0	0	0.00%	0	0	0.00%
Tier 2 Police & Fire	18,401	98,319	18.72%	13,688	99,592	13.74%
Tier 2 General Service	0	0	0.00%	0	0	0.00%
Total	**$18,401**	**$98,319**	**18.72%**	**$13,688**	**$99,592**	**13.74%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	($123,984)	($272,052)
2. Next year's Tier 1/Tier 2 UAL payment	(9,666)	(19,691)
3. Combined valuation payroll	271,075	267,075
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	(3.57%)	(7.37%)

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	18.72%	13.74%
b. Tier 1/Tier 2 UAL rate	(3.57%)	(7.37%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	15.30%	6.52%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	6.52%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	6.52%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	1.30%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
	c. Funded percentage	109%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	3.52%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	9.52%
7.	Advisory July 1, 2017 total pension rate, before adjustment	15.30%
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	(5.78%)
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	(3.57%)
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	(9.35%)
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	9.52%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	18.72%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	18.72%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	9.52%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	18.72%	13.74%
b. Tier 1/Tier 2 UAL rate	(9.35%)	(7.37%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate	9.52%	6.52%
(a. + b. + c., minimum of 5.50%)		

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$0	$0	$0
Tier 2	0	98,319	98,319
Tier 1/Tier 2 valuation payroll	0	98,319	98,319
OPSRP valuation payroll	0	172,756	172,756
Combined valuation payroll	**$0**	**$271,075**	**$271,075**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	1	3	4	0	1	3	4
Total	0	1	3	4	0	1	3	4
Active Members with previous service segments with the employer								
General Service	0	0	N/A	0	0	0	N/A	0
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	0	0	N/A	0	0	0	N/A	0
Dormant Members								
General Service	0	0	0	0	0	0	0	0
Police & Fire	2	1	0	3	2	1	0	3
Total	2	1	0	3	2	1	0	3
Retired Members and Beneficiaries								
General Service	0	0	0	0	0	0	0	0
Police & Fire	7	1	0	8	8	1	0	9
Total	7	1	0	8	8	1	0	9
Grand Total Number of Members	**9**	**3**	**3**	**15**	**10**	**3**	**3**	**16**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39										
40-44										
45-49			1							**1**
50-54										
55-59										
60-64										
65-69										
70-74										
75+										
Total	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44	1	1,485
45-49	2	1,089
50-54		
55-59		
60-64		
65-69		
70-74		
75+		
Total	3	1,221

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59	1	524
60-64	1	1,047
65-69	2	749
70-74	1	624
75-79	1	120
80-84	2	177
85-89		
90-94		
95-99		
100+		
Total	8	521

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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Milliman
111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
503 227 0634

November 2015

West Side Rural Fire Protection District/2796
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

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In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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November 2015
West Side Rural Fire Protection District/2796

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

West Side Rural Fire Protection District -- #2796

November 2015

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Executive Summary

Milliman has prepared this report for West Side Rural Fire Protection District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to West Side Rural Fire Protection District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for West Side Rural Fire Protection District

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	26.37%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	(8.61%)	(8.61%)	(8.61%)
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**18.77%**	**0.50%**	**5.30%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**19.27%**	**0.93%**	**5.73%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 117%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	14.76%	14.76%
Minimum 2017-2019 Rate	11.76%	8.76%
Maximum 2017-2019 Rate	17.76%	20.76%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$180,273	$148,854	($31,419)	121%	$76,630	(41%)
12/31/2010	214,440	171,459	(42,981)	125%	79,841	(54%)
12/31/2011	231,035	197,980	(33,055)	117%	82,111	(40%)
12/31/2012	278,239	226,802	(51,437)	123%	84,601	(61%)
12/31/2013	335,523	253,385	(82,138)	132%	87,178	(94%)
12/31/2014	369,674	315,804	(53,870)	117%	129,580	(42%)

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

West Side Rural Fire Protection District

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	($53,870)	($82,138)
Allocated pooled OPSRP UAL	14,814	6,164
Side account	0	0
Net unfunded pension actuarial accrued liability	(39,056)	(75,974)
Combined valuation payroll	129,580	87,178
Net pension UAL as a percentage of payroll	(30%)	(87%)
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$1,030	$1,207

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$23,656	$18,681
Tier 1/Tier 2 valuation payroll	89,702	87,178
Tier 1/Tier 2 pension normal cost rate	26.37%	21.43%
Tier 1/ Tier 2 Actuarial accrued liability	$315,804	$253,385
Actuarial asset value	369,674	335,523
Tier 1/Tier 2 Unfunded actuarial accrued liability	(53,870)	(82,138)
Tier 1/ Tier 2 Funded status	117%	132%
Combined valuation payroll	$129,580	$87,178
Tier 1/Tier 2 UAL as a percentage of payroll	(42%)	(94%)
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	(8.61%)	(6.67%)
Tier 1/Tier 2 active members [1]	1	1
Tier 1/Tier 2 dormant members	0	0
Tier 1/Tier 2 retirees and beneficiaries	0	0

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	129,580	87,178
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$29,026	$27,168
2. Employer reserves	340,648	308,355
3. Benefits in force reserve	0	0
4. Total market value of assets *(1. + 2. + 3.)*	**$369,674**	**$335,523**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$335,523
2. Regular employer contributions	9,321
3. Benefit payments and expense	0
4. Adjustments [1]	(84)
5. Interest credited	24,914
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$369,674**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$0
Tier 1 General Service	0	0
Tier 2 Police & Fire	23,656	18,681
Tier 2 General Service	0	0
Total	**$23,656**	**$18,681**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$19,464	$23,656	$4,192

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$0	$0
▪ Tier 1 General Service	0	0
▪ Tier 2 Police & Fire	315,804	253,385
▪ Tier 2 General Service	0	0
▪ **Total Active Members**	**$315,804**	**$253,385**
Dormant Members	0	0
Retired Members and Beneficiaries	0	0
Total Actuarial Accrued Liability	**$315,804**	**$253,385**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$284,701	$315,804	$31,103

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$315,804	$253,385
2. Actuarial value of assets	369,674	335,523
3. Unfunded accrued liability *(1. – 2.)*	(53,870)	(82,138)
4. Funded percentage *(2. ÷ 1.)*	117%	132%
5. Combined valuation payroll	$129,580	$87,178
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	(42%)	(94%)

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	($82,138)	($5,945)	($6,120)	($82,313)	($6,166)
December 31, 2014	N/A	N/A	N/A	$28,443	$2,058
Total				**($53,870)**	**($4,108)**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$253,385
b. Normal cost at December 31, 2013	18,681
c. Benefit payments during 2014	0
d. Interest at 7.75% to December 31, 2014	20,361
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	292,427
f. Change in actuarial accrued liability due to assumption, method, and plan changes	31,103
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	323,530
2. Actuarial accrued liability at December 31, 2014	315,804
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	7,726
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	335,523
b. Contributions for 2014[1]	9,321
c. Benefit payments and expenses during 2014	0
d. Interest at 7.75% to December 31, 2014	26,364
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	371,208
5. Actuarial value of assets at December 31, 2014	369,674
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(1,534)
7. Total actuarial gain/(loss) *(3. + 6.)*	**$6,192**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**($82,138)**
2. Expected increase	3,357
3. Liability (gain)/loss	(7,726)
4. Asset (gain)/loss	1,534
5. Change due to changes in assumptions, methods, and plan provisions	31,103
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**($53,870)**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$0	$0	0.00%
Tier 1 General Service	0	0	0.00%	0	0	0.00%
Tier 2 Police & Fire	23,656	89,702	26.37%	18,681	87,178	21.43%
Tier 2 General Service	0	0	0.00%	0	0	0.00%
Total	**$23,656**	**$89,702**	**26.37%**	**$18,681**	**$87,178**	**21.43%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	($53,870)	($82,138)
2. Next year's Tier 1/Tier 2 UAL payment	(4,108)	(5,945)
3. Combined valuation payroll	129,580	87,178
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	(3.17%)	(6.82%)

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	26.37%	21.43%
b. Tier 1/Tier 2 UAL rate	(3.17%)	(6.82%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	23.35%	14.76%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	14.76%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	14.76%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	2.95%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
	c. Funded percentage	117%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	11.76%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	17.76%
7.	Advisory July 1, 2017 total pension rate, before adjustment	23.35%
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	(5.59%)
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	(3.17%)
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	(8.76%)
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	17.76%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	26.37%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	26.37%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	17.76%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	26.37%	21.43%
b. Tier 1/Tier 2 UAL rate	(8.76%)	(6.82%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate	17.76%	14.76%
(a. + b. + c., minimum of 5.50%)		

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$0	$0	$0
Tier 2	0	89,702	89,702
Tier 1/Tier 2 valuation payroll	0	89,702	89,702
OPSRP valuation payroll	0	39,878	39,878
Combined valuation payroll	**$0**	**$129,580**	**$129,580**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	1	1	2	0	1	0	1
Total	0	1	1	2	0	1	0	1
Active Members with previous service segments with the employer								
General Service	0	0	N/A	0	0	0	N/A	0
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	0	0	N/A	0	0	0	N/A	0
Dormant Members								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Retired Members and Beneficiaries								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Grand Total Number of Members	**0**	**1**	**1**	**2**	**0**	**1**	**0**	**1**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39										
40-44										
45-49										
50-54										
55-59										
60-64			1							**1**
65-69										
70-74										
75+										
Total	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75+		
Total		

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75-79		
80-84		
85-89		
90-94		
95-99		
100+		
Total		

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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503 227 0634

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Milliman
111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
503 227 0634

November 2015

West Valley Fire District/2725
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

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In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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November 2015
West Valley Fire District/2725

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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Milliman

ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

West Valley Fire District -- #2725

November 2015

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Executive Summary

Milliman has prepared this report for West Valley Fire District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to West Valley Fire District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for West Valley Fire District

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	12.13%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	3.18%	3.18%	3.18%
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**16.32%**	**12.29%**	**17.09%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**16.82%**	**12.72%**	**17.52%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 75%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	13.96%	13.96%
Minimum 2017-2019 Rate	10.96%	7.96%
Maximum 2017-2019 Rate	16.96%	19.96%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$467,780	$426,605	($41,175)	110%	$287,520	(14%)
12/31/2010	556,619	497,630	(58,989)	112%	490,715	(12%)
12/31/2011	596,571	590,253	(6,318)	101%	457,183	(1%)
12/31/2012	699,866	728,108	28,242	96%	368,253	8%
12/31/2013	813,970	782,700	(31,270)	104%	509,464	(6%)
12/31/2014	770,983	1,025,215	254,232	75%	604,114	42%

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

West Valley Fire District

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	$254,232	($31,270)
Allocated pooled OPSRP UAL	69,063	36,022
Side account	0	0
Net unfunded pension actuarial accrued liability	323,295	4,752
Combined valuation payroll	604,114	509,464
Net pension UAL as a percentage of payroll	54%	1%
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$4,802	$7,052

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$6,094	$15,373
Tier 1/Tier 2 valuation payroll	50,224	107,887
Tier 1/Tier 2 pension normal cost rate	12.13%	14.25%
Tier 1/ Tier 2 Actuarial accrued liability	$1,025,215	$782,700
Actuarial asset value	770,983	813,970
Tier 1/Tier 2 Unfunded actuarial accrued liability	254,232	(31,270)
Tier 1/ Tier 2 Funded status	75%	104%
Combined valuation payroll	$604,114	$509,464
Tier 1/Tier 2 UAL as a percentage of payroll	42%	(6%)
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	3.18%	(0.29%)
Tier 1/Tier 2 active members [1]	1	2
Tier 1/Tier 2 dormant members	5	5
Tier 1/Tier 2 retirees and beneficiaries	7	5

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	604,114	509,464
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$73,623	$87,118
2. Employer reserves	477,498	712,592
3. Benefits in force reserve	219,863	14,260
4. Total market value of assets *(1. + 2. + 3.)*	**$770,983**	**$813,970**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$813,970
2. Regular employer contributions	(1,158)
3. Benefit payments and expense	(36,312)
4. Adjustments [1]	(69,455)
5. Interest credited	63,938
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$770,983**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$13,524
Tier 1 General Service	0	0
Tier 2 Police & Fire	6,094	1,849
Tier 2 General Service	0	0
Total	**$6,094**	**$15,373**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$5,168	$6,094	$926

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$29,382	$258,378
▪ Tier 1 General Service	40,814	35,344
▪ Tier 2 Police & Fire	261,933	225,773
▪ Tier 2 General Service	0	0
▪ **Total Active Members**	**$332,129**	**$519,495**
Dormant Members	266,559	240,219
Retired Members and Beneficiaries	426,527	22,986
Total Actuarial Accrued Liability	**$1,025,215**	**$782,700**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$917,983	$1,025,215	$107,232

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$1,025,215	$782,700
2. Actuarial value of assets	770,983	813,970
3. Unfunded accrued liability *(1. – 2.)*	254,232	(31,270)
4. Funded percentage *(2. ÷ 1.)*	75%	104%
5. Combined valuation payroll	$604,114	$509,464
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	42%	(6%)

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	($31,270)	($2,263)	($2,330)	($31,337)	($2,347)
December 31, 2014	N/A	N/A	N/A	$285,569	$20,663
Total				**$254,232**	**$18,316**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$782,700
b. Normal cost at December 31, 2013	15,373
c. Benefit payments during 2014	(36,032)
d. Interest at 7.75% to December 31, 2014	59,859
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	821,900
f. Change in actuarial accrued liability due to assumption, method, and plan changes	107,232
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	929,132
2. Actuarial accrued liability at December 31, 2014	1,025,215
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	(96,083)
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	813,970
b. Contributions for 2014[1]	(1,158)
c. Benefit payments and expenses during 2014	(36,312)
d. Interest at 7.75% to December 31, 2014	61,631
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	838,131
5. Actuarial value of assets at December 31, 2014	770,983
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(67,148)
7. Total actuarial gain/(loss) *(3. + 6.)*	**($163,231)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**($31,270)**
2. Expected increase	15,039
3. Liability (gain)/loss	96,083
4. Asset (gain)/loss	67,148
5. Change due to changes in assumptions, methods, and plan provisions	107,232
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**$254,232**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$13,524	$94,797	14.27%
Tier 1 General Service	0	0	0.00%	0	0	0.00%
Tier 2 Police & Fire	6,094	50,224	12.13%	1,849	13,090	14.13%
Tier 2 General Service	0	0	0.00%	0	0	0.00%
Total	**$6,094**	**$50,224**	**12.13%**	**$15,373**	**$107,887**	**14.25%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	$254,232	($31,270)
2. Next year's Tier 1/Tier 2 UAL payment	18,316	(2,263)
3. Combined valuation payroll	604,114	509,464
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	3.03%	(0.44%)

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	12.13%	14.25%
b. Tier 1/Tier 2 UAL rate	3.03%	(0.44%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	15.31%	13.96%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	13.96%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	13.96%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	2.79%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
	c. Funded percentage	75%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	10.96%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	16.96%
7.	Advisory July 1, 2017 total pension rate, before adjustment	15.31%
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	0.00%
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	3.03%
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	3.03%
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	15.31%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	12.13%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	12.13%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	15.31%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	12.13%	14.25%
b. Tier 1/Tier 2 UAL rate	3.03%	(0.44%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c., minimum of 5.50%)*	15.31%	13.96%

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$0	$0	$0
Tier 2	0	50,224	50,224
Tier 1/Tier 2 valuation payroll	0	50,224	50,224
OPSRP valuation payroll	27,456	526,434	553,890
Combined valuation payroll	**$27,456**	**$576,658**	**$604,114**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	0	0	1	1	0	0	1	1
Police & Fire	0	1	9	10	1	1	6	8
Total	0	1	10	11	1	1	7	9
Active Members with previous service segments with the employer								
General Service	1	0	N/A	1	1	0	N/A	1
Police & Fire	2	9	N/A	11	2	10	N/A	12
Total	3	9	N/A	12	3	10	N/A	13
Dormant Members								
General Service	0	0	0	0	0	0	0	0
Police & Fire	4	1	2	7	4	1	1	6
Total	4	1	2	7	4	1	1	6
Retired Members and Beneficiaries								
General Service	0	0	0	0	0	0	0	0
Police & Fire	6	1	0	7	5	0	0	5
Total	6	1	0	7	5	0	0	5
Grand Total Number of Members	**13**	**12**	**12**	**37**	**13**	**12**	**8**	**33**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39										
40-44		1								**1**
45-49										
50-54										
55-59										
60-64										
65-69										
70-74										
75+										
Total	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44	2	13
45-49		
50-54		
55-59	2	736
60-64		
65-69		
70-74	1	458
75+		
Total	5	391

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45	1	15
45-49	1	20
50-54	1	1,934
55-59	1	59
60-64	1	238
65-69		
70-74	1	22
75-79	1	54
80-84		
85-89		
90-94		
95-99		
100+		
Total	7	334

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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Milliman
111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
503 227 0634

November 2015

Weston Cemetery/2686
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated 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.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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Milliman

November 2015
Weston Cemetery/2686

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Weston Cemetery -- #2686

November 2015

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Executive Summary

Milliman has prepared this report for Weston Cemetery to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Weston Cemetery.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Weston Cemetery

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	11.91%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	1.15%	1.15%	1.15%
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**14.07%**	**10.26%**	**15.06%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**14.57%**	**10.69%**	**15.49%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 93%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	11.71%	11.71%
Minimum 2017-2019 Rate	8.71%	5.71%
Maximum 2017-2019 Rate	14.71%	17.71%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$95,306	$108,235	$12,929	88%	$18,996	68%
12/31/2010	99,997	118,986	18,989	84%	23,703	80%
12/31/2011	94,356	120,406	26,050	78%	3,845	678%
12/31/2012	103,907	122,524	18,617	85%	9,681	192%
12/31/2013	112,555	109,317	(3,238)	103%	27,143	(12%)
12/31/2014	112,106	120,512	8,406	93%	60,088	14%

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Weston Cemetery

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	$8,406	($3,238)
Allocated pooled OPSRP UAL	6,869	1,919
Side account	0	0
Net unfunded pension actuarial accrued liability	15,275	(1,319)
Combined valuation payroll	60,088	27,143
Net pension UAL as a percentage of payroll	25%	(5%)
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$478	$376

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$2,777	$5,405
Tier 1/Tier 2 valuation payroll	23,314	27,143
Tier 1/Tier 2 pension normal cost rate	11.91%	19.91%
Tier 1/ Tier 2 Actuarial accrued liability	$120,512	$109,317
Actuarial asset value	112,106	112,555
Tier 1/Tier 2 Unfunded actuarial accrued liability	8,406	(3,238)
Tier 1/ Tier 2 Funded status	93%	103%
Combined valuation payroll	$60,088	$27,143
Tier 1/Tier 2 UAL as a percentage of payroll	14%	(12%)
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	1.15%	(8.20%)
Tier 1/Tier 2 active members [1]	1	2
Tier 1/Tier 2 dormant members	0	0
Tier 1/Tier 2 retirees and beneficiaries	3	2

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	60,088	27,143
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$0	$0
2. Employer reserves	59,016	55,230
3. Benefits in force reserve	53,090	57,325
4. Total market value of assets *(1. + 2. + 3.)*	**$112,106**	**$112,555**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

		December 31, 2013 to December 31, 2014
1.	Market value of assets at beginning of year	$112,555
2.	Regular employer contributions	860
3.	Benefit payments and expense	(8,768)
4.	Adjustments [1]	(216)
5.	Interest credited	7,676
6.	Total transferred from side accounts	0
7.	**Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)***	**$112,106**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$0
Tier 1 General Service	0	0
Tier 2 Police & Fire	0	0
Tier 2 General Service	2,777	5,405
Total	**$2,777**	**$5,405**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$2,341	$2,777	$436

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$0	$0
▪ Tier 1 General Service	0	0
▪ Tier 2 Police & Fire	0	0
▪ Tier 2 General Service	17,518	16,911
▪ **Total Active Members**	**$17,518**	**$16,911**
Dormant Members	0	0
Retired Members and Beneficiaries	102,994	92,406
Total Actuarial Accrued Liability	**$120,512**	**$109,317**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$105,566	$120,512	$14,946

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$120,512	$109,317
2. Actuarial value of assets	112,106	112,555
3. Unfunded accrued liability *(1. – 2.)*	8,406	(3,238)
4. Funded percentage *(2. ÷ 1.)*	93%	103%
5. Combined valuation payroll	$60,088	$27,143
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	14%	(12%)

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	($3,238)	($234)	($241)	($3,245)	($243)
December 31, 2014	N/A	N/A	N/A	$11,651	$843
Total				**$8,406**	**$600**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$109,317
b. Normal cost at December 31, 2013	5,405
c. Benefit payments during 2014	(8,701)
d. Interest at 7.75% to December 31, 2014	8,344
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	114,365
f. Change in actuarial accrued liability due to assumption, method, and plan changes	14,946
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	129,311
2. Actuarial accrued liability at December 31, 2014	120,512
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	8,799
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	112,555
b. Contributions for 2014[1]	860
c. Benefit payments and expenses during 2014	(8,768)
d. Interest at 7.75% to December 31, 2014	8,417
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	113,063
5. Actuarial value of assets at December 31, 2014	112,106
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(957)
7. Total actuarial gain/(loss) *(3. + 6.)*	**$7,842**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**($3,238)**
2. Expected increase	4,540
3. Liability (gain)/loss	(8,799)
4. Asset (gain)/loss	957
5. Change due to changes in assumptions, methods, and plan provisions	14,946
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**$8,406**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$0	$0	0.00%
Tier 1 General Service	0	0	0.00%	0	0	0.00%
Tier 2 Police & Fire	0	0	0.00%	0	0	0.00%
Tier 2 General Service	2,777	23,314	11.91%	5,405	27,143	19.91%
Total	**$2,777**	**$23,314**	**11.91%**	**$5,405**	**$27,143**	**19.91%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	$8,406	($3,238)
2. Next year's Tier 1/Tier 2 UAL payment	600	(234)
3. Combined valuation payroll	60,088	27,143
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	1.00%	(0.86%)

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	11.91%	19.91%
b. Tier 1/Tier 2 UAL rate	1.00%	(0.86%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	13.06%	19.20%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	11.71%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	11.71%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	2.34%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
	c. Funded percentage	93%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	8.71%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	14.71%
7.	Advisory July 1, 2017 total pension rate, before adjustment	13.06%
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	0.00%
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	1.00%
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	1.00%
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	13.06%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	11.91%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	11.91%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	13.06%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	11.91%	19.91%
b. Tier 1/Tier 2 UAL rate	1.00%	(8.35%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c., minimum of 5.50%)*	13.06%	11.71%

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$0	$0	$0
Tier 2	23,314	0	23,314
Tier 1/Tier 2 valuation payroll	23,314	0	23,314
OPSRP valuation payroll	36,774	0	36,774
Combined valuation payroll	**$60,088**	**$0**	**$60,088**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	0	1	1	2	0	2	0	2
Police & Fire	0	0	0	0	0	0	0	0
Total	0	1	1	2	0	2	0	2
Active Members with previous service segments with the employer								
General Service	0	0	N/A	0	0	0	N/A	0
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	0	0	N/A	0	0	0	N/A	0
Dormant Members								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Retired Members and Beneficiaries								
General Service	2	1	0	3	2	0	0	2
Police & Fire	0	0	0	0	0	0	0	0
Total	2	1	0	3	2	0	0	2
Grand Total Number of Members	**2**	**2**	**1**	**5**	**2**	**2**	**0**	**4**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39										
40-44										
45-49										
50-54										
55-59			1							**1**
60-64										
65-69										
70-74										
75+										
Total	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75+		
Total		

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59	1	8
60-64	1	145
65-69		
70-74		
75-79		
80-84	1	781
85-89		
90-94		
95-99		
100+		
Total	3	311

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.
- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.
- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.
- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.
- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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Milliman
111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
503 227 0634

November 2015

Winchester Bay Sanitary District/2714
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated 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.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated 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.

November 2015
Winchester Bay Sanitary District/2714

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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Milliman

ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Winchester Bay Sanitary District -- #2714

November 2015

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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated 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.

Executive Summary

Milliman has prepared this report for Winchester Bay Sanitary District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Winchester Bay Sanitary District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Winchester Bay Sanitary District

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	14.23%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	2.68%	2.68%	2.68%
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**17.92%**	**11.79%**	**16.59%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**18.42%**	**12.22%**	**17.02%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 78%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	13.91%	13.91%
Minimum 2017-2019 Rate	10.91%	7.91%
Maximum 2017-2019 Rate	16.91%	19.91%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$151,074	$216,670	$65,596	70%	$138,874	47%
12/31/2010	168,693	228,660	59,967	74%	139,258	43%
12/31/2011	170,661	234,713	64,052	73%	138,822	46%
12/31/2012	204,010	269,846	65,836	76%	143,212	46%
12/31/2013	243,389	280,556	37,167	87%	144,040	26%
12/31/2014	267,042	343,278	76,236	78%	149,211	51%

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Winchester Bay Sanitary District

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	$76,236	$37,167
Allocated pooled OPSRP UAL	17,058	10,185
Side account	0	0
Net unfunded pension actuarial accrued liability	93,294	47,352
Combined valuation payroll	149,211	144,040
Net pension UAL as a percentage of payroll	63%	33%
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$1,186	$1,994

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$14,968	$12,175
Tier 1/Tier 2 valuation payroll	105,198	102,436
Tier 1/Tier 2 pension normal cost rate	14.23%	11.89%
Tier 1/ Tier 2 Actuarial accrued liability	$343,278	$280,556
Actuarial asset value	267,042	243,389
Tier 1/Tier 2 Unfunded actuarial accrued liability	76,236	37,167
Tier 1/ Tier 2 Funded status	78%	87%
Combined valuation payroll	$149,211	$144,040
Tier 1/Tier 2 UAL as a percentage of payroll	51%	26%
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	2.68%	2.02%
Tier 1/Tier 2 active members [1]	2	2
Tier 1/Tier 2 dormant members	0	0
Tier 1/Tier 2 retirees and beneficiaries	2	3

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	149,211	144,040
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$20,778	$19,446
2. Employer reserves	187,257	160,300
3. Benefits in force reserve	59,007	63,642
4. Total market value of assets *(1. + 2. + 3.)*	**$267,042**	**$243,389**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$243,389
2. Regular employer contributions	14,402
3. Benefit payments and expense	(9,745)
4. Adjustments [1]	952
5. Interest credited	18,044
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$267,042**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$0
Tier 1 General Service	0	0
Tier 2 Police & Fire	0	0
Tier 2 General Service	14,968	12,175
Total	**$14,968**	**$12,175**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$12,581	$14,968	$2,387

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$0	$0
▪ Tier 1 General Service	0	0
▪ Tier 2 Police & Fire	0	0
▪ Tier 2 General Service	228,806	177,967
▪ **Total Active Members**	**$228,806**	**$177,967**
Dormant Members	0	0
Retired Members and Beneficiaries	114,472	102,589
Total Actuarial Accrued Liability	**$343,278**	**$280,556**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$301,398	$343,278	$41,880

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$343,278	$280,556
2. Actuarial value of assets	267,042	243,389
3. Unfunded accrued liability *(1. – 2.)*	76,236	37,167
4. Funded percentage *(2. ÷ 1.)*	78%	87%
5. Combined valuation payroll	$149,211	$144,040
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	51%	26%

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	$37,167	$2,690	$2,769	$37,246	$2,790
December 31, 2014	N/A	N/A	N/A	$38,990	$2,821
Total				**$76,236**	**$5,611**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$280,556
b. Normal cost at December 31, 2013	12,175
c. Benefit payments during 2014	(9,670)
d. Interest at 7.75% to December 31, 2014	21,840
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	304,901
f. Change in actuarial accrued liability due to assumption, method, and plan changes	41,880
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	346,781
2. Actuarial accrued liability at December 31, 2014	343,278
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	3,503
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	243,389
b. Contributions for 2014[1]	14,402
c. Benefit payments and expenses during 2014	(9,745)
d. Interest at 7.75% to December 31, 2014	19,043
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	267,088
5. Actuarial value of assets at December 31, 2014	267,042
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(47)
7. Total actuarial gain/(loss) *(3. + 6.)*	**$3,456**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**$37,167**
2. Expected increase	645
3. Liability (gain)/loss	(3,503)
4. Asset (gain)/loss	47
5. Change due to changes in assumptions, methods, and plan provisions	41,880
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**$76,236**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$0	$0	0.00%
Tier 1 General Service	0	0	0.00%	0	0	0.00%
Tier 2 Police & Fire	0	0	0.00%	0	0	0.00%
Tier 2 General Service	14,968	105,198	14.23%	12,175	102,436	11.89%
Total	**$14,968**	**$105,198**	**14.23%**	**$12,175**	**$102,436**	**11.89%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	$76,236	$37,167
2. Next year's Tier 1/Tier 2 UAL payment	5,611	2,690
3. Combined valuation payroll	149,211	144,040
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	3.76%	1.87%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	14.23%	11.89%
b. Tier 1/Tier 2 UAL rate	3.76%	1.87%
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	18.14%	13.91%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1. Current net Tier 1/Tier 2 pension contribution rate	13.91%
2. Employer contribution rate attributable to side accounts	0.00%
3. Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	13.91%
4. Size of rate collar	
a. 20% of current employer contribution rate *(20% x 3.)*	2.78%
b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
c. Funded percentage	78%
d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5. Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	10.91%
6. Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	16.91%
7. Advisory July 1, 2017 total pension rate, before adjustment	18.14%
8. Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	(1.23%)
9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	3.76%
10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	2.53%
11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	16.91%
12. Tier 1/Tier 2 retiree healthcare rate	0.50%
13. Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	14.23%
15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	14.23%
16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	16.91%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	14.23%	11.89%
b. Tier 1/Tier 2 UAL rate	2.53%	1.87%
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c., minimum of 5.50%)*	16.91%	13.91%

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$0	$0	$0
Tier 2	105,198	0	105,198
Tier 1/Tier 2 valuation payroll	105,198	0	105,198
OPSRP valuation payroll	44,013	0	44,013
Combined valuation payroll	**$149,211**	**$0**	**$149,211**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	0	2	1	3	0	2	1	3
Police & Fire	0	0	0	0	0	0	0	0
Total	0	2	1	3	0	2	1	3
Active Members with previous service segments with the employer								
General Service	0	0	N/A	0	0	0	N/A	0
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	0	0	N/A	0	0	0	N/A	0
Dormant Members								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Retired Members and Beneficiaries								
General Service	2	0	0	2	3	0	0	3
Police & Fire	0	0	0	0	0	0	0	0
Total	2	0	0	2	3	0	0	3
Grand Total Number of Members	**2**	**2**	**1**	**5**	**3**	**2**	**1**	**6**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39										
40-44										
45-49										
50-54				1						**1**
55-59										
60-64			1							**1**
65-69										
70-74										
75+										
Total	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**2**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75+		
Total		

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59		
60-64		
65-69	1	311
70-74		
75-79		
80-84	1	785
85-89		
90-94		
95-99		
100+		
Total	2	548

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.
- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.
- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.
- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.
- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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Milliman
111 SW Fifth Avenue, Suite 3700
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503 227 0634

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Milliman
111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
503 227 0634

November 2015

Yamhill County/2015
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

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In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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Milliman

November 2015
Yamhill County/2015

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Yamhill County -- #2015

November 2015

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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated 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.

Executive Summary

Milliman has prepared this report for Yamhill County to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Yamhill County.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Yamhill County

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	16.07%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	(1.36%)	(1.36%)	(1.36%)
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**15.72%**	**7.75%**	**12.55%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**16.22%**	**8.18%**	**12.98%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 87%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	11.71%	11.71%
Minimum 2017-2019 Rate	8.71%	5.71%
Maximum 2017-2019 Rate	14.71%	17.71%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$46,262,877	$45,990,333	($272,544)	101%	$21,770,669	(1%)
12/31/2010	50,594,864	50,082,170	(512,694)	101%	22,476,974	(2%)
12/31/2011	49,368,116	53,073,411	3,705,295	93%	21,695,391	17%
12/31/2012	55,280,975	58,352,215	3,071,240	95%	21,979,926	14%
12/31/2013	61,606,382	62,439,555	833,172	99%	22,587,423	4%
12/31/2014	64,662,813	74,720,280	10,057,467	87%	23,980,678	42%

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Yamhill County

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	$10,057,467	$833,172
Allocated pooled OPSRP UAL	2,741,514	1,597,068
Side account	0	0
Net unfunded pension actuarial accrued liability	12,798,981	2,430,240
Combined valuation payroll	23,980,678	22,587,423
Net pension UAL as a percentage of payroll	53%	11%
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$190,613	$312,634

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$1,822,249	$1,540,362
Tier 1/Tier 2 valuation payroll	11,342,126	11,931,610
Tier 1/Tier 2 pension normal cost rate	16.07%	12.91%
Tier 1/ Tier 2 Actuarial accrued liability	$74,720,280	$62,439,555
Actuarial asset value	64,662,813	61,606,383
Tier 1/Tier 2 Unfunded actuarial accrued liability	10,057,467	833,172
Tier 1/ Tier 2 Funded status	87%	99%
Combined valuation payroll	$23,980,678	$22,587,423
Tier 1/Tier 2 UAL as a percentage of payroll	42%	4%
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	(1.36%)	(1.20%)
Tier 1/Tier 2 active members [1]	179	193
Tier 1/Tier 2 dormant members	100	106
Tier 1/Tier 2 retirees and beneficiaries	200	182

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	23,980,678	22,587,423
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$8,118,709	$8,114,311
2. Employer reserves	41,142,480	38,595,108
3. Benefits in force reserve	15,401,624	14,896,964
4. Total market value of assets *(1. + 2. + 3.)*	**$64,662,813**	**$61,606,383**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$61,606,383
2. Regular employer contributions	605,703
3. Benefit payments and expense	(2,543,693)
4. Adjustments [1]	599,272
5. Interest credited	4,395,149
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$64,662,813**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$284,204	$243,639
Tier 1 General Service	114,960	106,496
Tier 2 Police & Fire	356,063	289,678
Tier 2 General Service	1,067,022	900,549
Total	**$1,822,249**	**$1,540,362**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$1,515,877	$1,822,249	$306,372

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$9,060,670	$8,096,696
▪ Tier 1 General Service	2,130,589	2,171,405
▪ Tier 2 Police & Fire	6,416,482	5,089,731
▪ Tier 2 General Service	21,146,595	18,229,891
▪ **Total Active Members**	**$38,754,336**	**$33,587,723**
Dormant Members	6,087,175	4,838,450
Retired Members and Beneficiaries	29,878,769	24,013,382
Total Actuarial Accrued Liability	**$74,720,280**	**$62,439,555**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$65,738,491	$74,720,280	$8,981,789

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$74,720,280	$62,439,555
2. Actuarial value of assets	64,662,813	61,606,383
3. Unfunded accrued liability *(1. – 2.)*	10,057,467	833,172
4. Funded percentage *(2. ÷ 1.)*	87%	99%
5. Combined valuation payroll	$23,980,678	$22,587,423
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	42%	4%

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	$833,172	$60,305	$62,083	$834,950	$62,543
December 31, 2014	N/A	N/A	N/A	$9,222,517	$667,331
Total				**$10,057,467**	**$729,874**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$62,439,555
b. Normal cost at December 31, 2013	1,540,362
c. Benefit payments during 2014	(2,524,101)
d. Interest at 7.75% to December 31, 2014	4,800,946
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	66,256,762
f. Change in actuarial accrued liability due to assumption, method, and plan changes	8,981,789
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	75,238,551
2. Actuarial accrued liability at December 31, 2014	74,720,280
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	518,271
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	61,606,383
b. Contributions for 2014[1]	605,703
c. Benefit payments and expenses during 2014	(2,543,693)
d. Interest at 7.75% to December 31, 2014	4,699,398
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	64,367,790
5. Actuarial value of assets at December 31, 2014	64,662,813
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	295,023
7. Total actuarial gain/(loss) *(3. + 6.)*	**$813,294**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**$833,172**
2. Expected increase	1,055,800
3. Liability (gain)/loss	(518,271)
4. Asset (gain)/loss	(295,023)
5. Change due to changes in assumptions, methods, and plan provisions	8,981,789
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**$10,057,467**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$284,204	$1,280,583	22.19%	$243,639	$1,348,179	18.07%
Tier 1 General Service	114,960	655,398	17.54%	106,496	710,261	14.99%
Tier 2 Police & Fire	356,063	1,866,809	19.07%	289,678	1,868,543	15.50%
Tier 2 General Service	1,067,022	7,539,336	14.15%	900,549	8,004,627	11.25%
Total	**$1,822,249**	**$11,342,126**	**16.07%**	**$1,540,362**	**$11,931,610**	**12.91%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	$10,057,467	$833,172
2. Next year's Tier 1/Tier 2 UAL payment	729,874	60,305
3. Combined valuation payroll	23,980,678	22,587,423
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	3.04%	0.27%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	16.07%	12.91%
b. Tier 1/Tier 2 UAL rate	3.04%	0.27%
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	19.26%	13.33%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	11.71%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	11.71%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	2.34%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
	c. Funded percentage	87%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	8.71%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	14.71%
7.	Advisory July 1, 2017 total pension rate, before adjustment	19.26%
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	(4.55%)
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	3.04%
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	(1.51%)
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	14.71%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	16.07%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	16.07%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	14.71%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	16.07%	12.91%
b. Tier 1/Tier 2 UAL rate	(1.51%)	(1.35%)
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate	14.71%	11.71%
(a. + b. + c., minimum of 5.50%)		

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$655,398	$1,280,583	$1,935,981
Tier 2	7,539,336	1,866,809	9,406,145
Tier 1/Tier 2 valuation payroll	8,194,734	3,147,392	11,342,126
OPSRP valuation payroll	10,020,097	2,618,455	12,638,552
Combined valuation payroll	**$18,214,831**	**$5,765,847**	**$23,980,678**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	12	128	241	381	14	138	205	357
Police & Fire	15	24	40	79	16	25	37	78
Total	27	152	281	460	30	163	242	435
Active Members with previous service segments with the employer								
General Service	20	63	N/A	83	20	57	N/A	77
Police & Fire	12	20	N/A	32	14	19	N/A	33
Total	32	83	N/A	115	34	76	N/A	110
Dormant Members								
General Service	13	69	16	98	16	72	12	100
Police & Fire	9	9	5	23	8	10	4	22
Total	22	78	21	121	24	82	16	122
Retired Members and Beneficiaries								
General Service	30	103	5	138	25	92	2	119
Police & Fire	64	3	0	67	62	3	0	65
Total	94	106	5	205	87	95	2	184
Grand Total Number of Members	**175**	**419**	**307**	**901**	**175**	**416**	**260**	**851**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34			2							**2**
35-39			12	5						**17**
40-44		1	7	8	2					**18**
45-49		1	10	22	8					**41**
50-54	1	1	4	16	2	5	1			**30**
55-59			6	25		1				**32**
60-64		1	6	22			1			**30**
65-69		1	1	5						**7**
70-74				1						**1**
75+			1							**1**
Total	**1**	**5**	**49**	**104**	**12**	**6**	**2**	**0**	**0**	**179**

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34	2	542
35-39	9	593
40-44	13	580
45-49	11	475
50-54	15	1,290
55-59	21	400
60-64	19	433
65-69	9	355
70-74		
75+	1	1,314
Total	100	597

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45	2	650
45-49	3	258
50-54	9	1,516
55-59	13	1,453
60-64	35	979
65-69	67	1,012
70-74	39	734
75-79	26	535
80-84	3	757
85-89	3	1,457
90-94		
95-99		
100+		
Total	200	929

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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111 SW Fifth Avenue, Suite 3700
Portland, OR 97204-3654
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November 2015

Yamhill Fire Protection District/2878
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

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In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, 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, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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November 2015
Yamhill Fire Protection District/2878

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

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

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Yamhill Fire Protection District -- #2878

November 2015

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Executive Summary

Milliman has prepared this report for Yamhill Fire Protection District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Yamhill Fire Protection District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Yamhill Fire Protection District

	Payroll		
		OPSRP	
	Tier 1/Tier 2	General Service	Police & Fire
Pension			
Normal cost rate	17.01%	8.10%	12.90%
Tier 1/Tier 2 UAL rate[1]	0.15%	0.15%	0.15%
OPSRP UAL rate	1.01%	1.01%	1.01%
Side account rate relief	0.00%	0.00%	0.00%
Net pension contribution rate	**18.17%**	**9.26%**	**14.06%**
Retiree Healthcare			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
Net retiree healthcare rate	**0.50%**	**0.43%**	**0.43%**
Total net employer contribution rate	**18.67%**	**9.69%**	**14.49%**

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

[1] *Includes Multnomah Fire District #10 rate.*

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 100%.

Funded Status as of December 31, 2015	70% to 130%	Under 60% or Over 140%
2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate	14.39%	14.39%
Minimum 2017-2019 Rate	11.39%	8.39%
Maximum 2017-2019 Rate	17.39%	20.39%

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Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

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Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2009	$0	$0	$0	0%	$0	0%
12/31/2010	0	0	0	0%	0	0%
12/31/2011	0	0	0	0%	0	0%
12/31/2012	0	0	0	0%	31,785	0%
12/31/2013	1	0	(1)	100%	74,622	0%
12/31/2014	4	0	(4)	0%	113,496	0%

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

	Payroll		
		OPSRP	
	Tier 1 / Tier 2	General Service	Police & Fire
July 1, 2013 to June 30, 2015	0.59%	0.49%	0.49%
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%

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Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Yamhill Fire Protection District

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
T1/T2 UAL	($4)	($1)
Allocated pooled OPSRP UAL	12,975	5,276
Side account	0	0
Net unfunded pension actuarial accrued liability	12,971	5,275
Combined valuation payroll	113,496	74,622
Net pension UAL as a percentage of payroll	11%	7%
Calculated side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	$902	$1,033

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

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Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
Normal cost	$0	$0
Tier 1/Tier 2 valuation payroll	0	0
Tier 1/Tier 2 pension normal cost rate	17.01%	14.24%
Tier 1/ Tier 2 Actuarial accrued liability	$0	$0
Actuarial asset value	4	1
Tier 1/Tier 2 Unfunded actuarial accrued liability	(4)	(1)
Tier 1/ Tier 2 Funded status	0%	0%
Combined valuation payroll	$113,496	$74,622
Tier 1/Tier 2 UAL as a percentage of payroll	0%	0%
Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10)	0.15%	0.15%
Tier 1/Tier 2 active members [1]	0	0
Tier 1/Tier 2 dormant members	0	0
Tier 1/Tier 2 retirees and beneficiaries	0	0

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Executive Summary

Principal Valuation Results (continued)

OPSRP

($ in millions)	Actuarial Valuation as of	
	December 31, 2014	**December 31, 2013**
General service normal cost	$301.3	$234.7
OPSRP general service valuation payroll	3,720.4	3,200.0
General service normal cost rate	8.10%	7.33%
Police and fire normal cost	$59.6	$45.5
OPSRP police and fire valuation payroll	462.3	398.1
Police and fire normal cost rate	12.90%	11.44%
Actuarial accrued liability	$3,064.1	$2,243.3
Actuarial asset value	2,024.6	1,630.2
Unfunded actuarial accrued liability	1,039.5	613.2
Funded status	66%	73%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	11%	7%
UAL rate	1.01%	0.61%

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2014**	**December 31, 2013**
Normal cost	$3.5	$4.0
Tier 1 / Tier 2 valuation payroll	4,933.1	5,073.7
Normal cost rate	0.07%	0.08%
Actuarial accrued liability	$468.4	$473.6
Actuarial asset value	395.9	353.5
Unfunded actuarial accrued liability	72.5	120.0
Funded status	85%	75%
Combined valuation payroll	$9,115.8	$8,671.8
UAL as a percentage of payroll	1%	1%
UAL rate	0.43%	0.45%

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Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2013	**N/A**		
2. Deposits made during 2014		N/A	
3. Administrative expenses			
4. Amount transferred to employer reserves during 2014			
5. Side account earnings during 2014			
6. Side account as of December 31, 2014 ***(1. + 2. + 3. + 4. + 5.)***			

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Side Account Information

Side Account Balances

	December 31, 2014	December 31, 2013
Side account 1	$0	$0
Side account 2	0	0
Side account 3	0	0
Total	**$0**	**$0**

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

	December 31, 2014	December 31, 2013
1. Total side account	$0	$0
2. Combined valuation payroll	113,496	74,622
3. Amortization factor	10.118	10.703
4. Total side account rate *(-1. ÷ 2. ÷ 3.)* [1]	0.00%	0.00%

[1] *For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.*

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Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

	December 31, 2014	December 31, 2013
1. Member reserves	$0	$0
2. Employer reserves	4	1
3. Benefits in force reserve	0	0
4. Total market value of assets *(1. + 2. + 3.)*	**$4**	**$1**

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

	December 31, 2013 to December 31, 2014
1. Market value of assets at beginning of year	$1
2. Regular employer contributions	118
3. Benefit payments and expense	0
4. Adjustments [1]	(130)
5. Interest credited	15
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$4**

[1] *Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

	December 31, 2014	December 31, 2013
Tier 1 Police & Fire	$0	$0
Tier 1 General Service	0	0
Tier 2 Police & Fire	0	0
Tier 2 General Service	0	0
Total	**$0**	**$0**

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

	Before Changes	After Changes	Net Change
Normal Cost	$0	$0	$0

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Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

	December 31, 2014	December 31, 2013
Active Members		
▪ Tier 1 Police & Fire	$0	$0
▪ Tier 1 General Service	0	0
▪ Tier 2 Police & Fire	0	0
▪ Tier 2 General Service	0	0
▪ **Total Active Members**	**$0**	**$0**
Dormant Members	0	0
Retired Members and Beneficiaries	0	0
Total Actuarial Accrued Liability	**$0**	**$0**

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$0	$0	$0

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$0	$0
2. Actuarial value of assets	4	1
3. Unfunded accrued liability *(1. – 2.)*	(4)	(1)
4. Funded percentage *(2. ÷ 1.)*	100%	100%
5. Combined valuation payroll	$113,496	$74,622
6. Unfunded accrued liability as % of combined valuation payroll *(3. ÷ 5.)*	0%	0%

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	($1)	$0	$0	($1)	$0
December 31, 2014	N/A	N/A	N/A	($3)	$0
Total				**($4)**	**$0**

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Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2013	$0
b. Normal cost at December 31, 2013	0
c. Benefit payments during 2014	0
d. Interest at 7.75% to December 31, 2014	0
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	0
f. Change in actuarial accrued liability due to assumption, method, and plan changes	0
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	0
2. Actuarial accrued liability at December 31, 2014	0
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	0
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2013	1
b. Contributions for 2014[1]	118
c. Benefit payments and expenses during 2014	0
d. Interest at 7.75% to December 31, 2014	5
e. Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	124
5. Actuarial value of assets at December 31, 2014	4
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	(120)
7. Total actuarial gain/(loss) *(3. + 6.)*	**($120)**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

1. UAL at December 31, 2013	**($1)**
2. Expected increase	(123)
3. Liability (gain)/loss	0
4. Asset (gain)/loss	120
5. Change due to changes in assumptions, methods, and plan provisions	0
6. UAL at December 31, 2014 *(1. + 2. + 3. + 4. + 5.)*	**($4)**

[1] *Includes rate relief from side accounts.*

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

	December 31, 2014			December 31, 2013		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate
Tier 1 Police & Fire	$0	$0	0.00%	$0	$0	0.00%
Tier 1 General Service	0	0	0.00%	0	0	0.00%
Tier 2 Police & Fire	0	0	0.00%	0	0	0.00%
Tier 2 General Service	0	0	0.00%	0	0	0.00%
Total	**$0**	**$0**	**17.01%**	**$0**	**$0**	**14.24%**

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Total Tier 1/Tier 2 UAL	($4)	($1)
2. Next year's Tier 1/Tier 2 UAL payment	0	0
3. Combined valuation payroll	113,496	74,622
4. Tier 1/Tier 2 UAL rate *(2. ÷ 3.)*	0.00%	0.00%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	17.01%	14.24%
b. Tier 1/Tier 2 UAL rate	0.00%	0.00%
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c.)*	17.16%	14.39%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

1.	Current net Tier 1/Tier 2 pension contribution rate	14.39%
2.	Employer contribution rate attributable to side accounts	0.00%
3.	Current employer Tier 1/Tier 2 pension contribution rate *(1. – 2.)*	14.39%
4.	Size of rate collar	
	a. 20% of current employer contribution rate *(20% x 3.)*	2.88%
	b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.00%
	c. Funded percentage	100%
	d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.00%
5.	Advisory July 1, 2017 minimum employer contribution rate *(3. – 4.d. but not < 0%)*	11.39%
6.	Advisory July 1, 2017 maximum employer contribution rate *(3. + 4.d.)*	17.39%
7.	Advisory July 1, 2017 total pension rate, before adjustment	17.16%
8.	Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	0.00%
9.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar	0.00%
10.	Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar *(8. + 9.)*	0.00%
11.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar	17.16%
12.	Tier 1/Tier 2 retiree healthcare rate	0.50%
13.	Net adjustment due to 6% minimum *(6% - 11. - 12., minimum 0%)*	0.00%
14.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment	17.01%
15.	Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment *(13. + 14.)*	17.01%
16.	Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment *(11. + 13.)*	17.16%

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Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

	Advisory July 1, 2017 Rates calculated as of December 31, 2014	July 1, 2015 Rates calculated as of December 31, 2013
1. Tier 1/Tier 2 pension contribution rates		
a. Employer Tier 1/Tier 2 pension normal cost rate	17.01%	14.24%
b. Tier 1/Tier 2 UAL rate	0.00%	0.00%
c. Multnomah Fire District #10 rate	0.15%	0.15%
d. Total Tier 1/Tier 2 pension rate *(a. + b. + c., minimum of 5.50%)*	17.16%	14.39%

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Data

Demographic Information

Employer Valuation Payroll

	General Service	Police & Fire	Total
Tier 1	$0	$0	$0
Tier 2	0	0	0
Tier 1/Tier 2 valuation payroll	0	0	0
OPSRP valuation payroll	0	113,496	113,496
Combined valuation payroll	**$0**	**$113,496**	**$113,496**

Employer Member Census

	December 31							
	2014				2013			
	Tier 1	Tier 2	OPSRP	Total	Tier 1	Tier 2	OPSRP	Total
Active Members [1]								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	3	3	0	0	2	2
Total	0	0	3	3	0	0	2	2
Active Members with previous service segments with the employer								
General Service	0	0	N/A	0	0	0	N/A	0
Police & Fire	0	0	N/A	0	0	0	N/A	0
Total	0	0	N/A	0	0	0	N/A	0
Dormant Members								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Retired Members and Beneficiaries								
General Service	0	0	0	0	0	0	0	0
Police & Fire	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Grand Total Number of Members	**0**	**0**	**3**	**3**	**0**	**0**	**2**	**2**

[1] *Active counts do not include concurrent employees who have a separate dominant employer.*

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Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

	Years of Service									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20										
20-24										
25-29										
30-34										
35-39										
40-44										
45-49										
50-54										
55-59										
60-64										
65-69										
70-74										
75+										
Total	0	0	0	0	0	0	0	0	0	0

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75+		
Total		

Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59		
60-64		
65-69		
70-74		
75-79		
80-84		
85-89		
90-94		
95-99		
100+		
Total		

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

Actuarial cost method	Entry Age Normal.
Amortization Method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period. All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

Net investment return	7.50% compounded annually on system assets.
Interest crediting	7.50% compounded annually on members' regular account balances starting in 2015. 7.50% compounded annually on members' variable account balances starting in 2015.
Consumer price inflation	2.50% per year.
Future general wage inflation	3.50% per year.
Healthcare cost inflation	Ranging from 7.0% in 2015 to 4.4% in 2094.
Administrative Expenses	$5.5 million added to OPSRP normal cost. $33.0 million added to Tier 1/Tier 2 normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

  For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.
- **Inflation**

  The inflation assumption was reduced from 2.75% to 2.50%.
- **Payroll Growth**

  The assumed payroll growth rate was reduced from 3.75% to 3.50%.
- **Tier 1/Tier 2 Administrative Expenses**

  Administrative expenses for the Tier 1/Tier 2 System are assumed to be $33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.
- **Disability, Retirement, and Termination**

  Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in Moro v. State of Oregon stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

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Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

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Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.

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